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RUNNING HEAD: PRESUMED GUILT AND INNOCENT SUSPECTS

"I think you did it!": Examining the effect of presuming guilt on the verbal output of innocent suspects during brief interviews

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Conflict of Interests Statement

The authors have no conflict of interest to declare.

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Abstract

Innocent suspects interviewed by a guilt-presumptive versus innocence-presumptive or neutral interviewer may tend more to display non-verbal behaviours which neutral judges consider indicative of guilt. We examined the effects of interviewer's presumption of guilt on innocent mock suspects' alibis. Participants (N = 90) provided an alibi to convince an interviewer of their innocence of a theft after she implied that she believed that they were guilty or innocent, or that she had no belief about their veracity. Based on existing conflicting findings for suspects' verbal behaviour during accusatory interviews, we predicted that alibis in the guilt-belief condition would contain the highest or lowest number of correct details with overall higher or poorer accuracy rates, respectively. Although participants perceived the interviewer's presumptive approach, the number of correct details provided and accuracy rates of alibis did not differ significantly between conditions. We propose explanations to these findings and future research paths.

Keywords: alibis, informativeness and accuracy, innocent suspects, investigative interviewing, presumption of guilt, self-fulfilling prophecy.

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suspects during brief interviews

In many jurisdictions, investigative interviewers should assume that the interviewee is innocent until proved guilty at trial (Naughton, 2011; Stewart, 2014). However, interviewers often form beliefs about suspects' guilt *prior* to interviewing them (Mortimer & Shepherd, 1999; Moston, Stephenson, & Williamson, 1992). For example, in an examination of 1,067 suspect interviews conducted in the United Kingdom (UK), interviewers were certain of the suspect's guilt prior to the interview for 73% (780) of the cases (Moston et al., 1992). Critically, this guilt presumption—which may be held confidently—is often held in error (Kassin, Goldstein, & Savitsky, 2003). To prevent instances of biased interviews, several interview models (e.g., the PEACE model used in the UK) include the recommendation that interviewers should avoid assumptions of guilt (Shawyer, Milne, & Bull, 2009). However, a recent survey of officers trained in the PEACE model revealed that 97.1% reported to have "sometimes" and even "always" already believed that fraud suspects were guilty prior to interviewing them (Shawyer & Milne, 2015), suggesting that the recommendation to avoid guilt presumption is not necessarily being adhered to.

Presumed Guilt and Innocent Suspects' Behaviour

Previous research has demonstrated the effects of presuming guilt both on mock interviewers' behaviour and the evaluation of interviewed mock suspects by neutral perceivers (Hill, Memon, & McGeorge, 2008; Kassin et al., 2003). Kassin et al. (2003) found that mock interviewers who were led to expect that their suspect-participants were guilty of a theft selected more guilt-presumptive questions (from a prepared list of questions) compared with 'interviewers' who expected to encounter an innocent suspect. New participants who listened to the taped interviews judged a larger percentage of suspects interviewed by guilt-

presumptive interviewers as guilty than of those interviewed by innocence-presumptive interviewers. Suspects interviewed with a guilt-presumptive approach were also perceived as more defensive than those interviewed with an innocence-presumptive approach.

Extending Kassin et al.'s (2003) work, Hill et al. (2008) found that mock interviewers who were led to expect that they would interview a guilty suspect generated a higher proportion of guilt-presumptive questions than did mock interviewers who expected to interview an innocent suspect (cf. choosing the questions from a prepared list as in Kassin et al., 2003). In a follow-up study (Hill et al., 2008), guilty and innocent mock suspects who were interviewed regarding alleged cheating with guilt-presumptive questions obtained in the first study reported feeling more pressure to confess during the interview than did mock suspects who were asked neutral questions obtained in the first study. Finally, Hill et al. (2008) found that new participants who listened to recordings of the interviews with the mock suspects rated those who were asked neutral questions. Critically, these listeners rated innocent mock suspects who were asked guilt-presumptive questions as more guilty than guilty mock suspects who replied to such questions.

Presumed Guilt as Part of Social Interactions

The findings reported by Kassin et al. (2003) and Hill et al. (2008) suggest that guiltpresumptive interviewers unwittingly affect the behaviour of suspects such that it confirms the interviewers' presumption of guilt. What processes might underlie these findings? One possibility is that the presumption of guilt directs the interviewer's behaviour towards a *confirmation bias* (Nickerson, 1998). Specifically, the interviewer unintentionally gathers and uses information in a selective manner (e.g., selects/formulates guilt-presumptive questions and uses them during suspect interviews) such that it increases the validity of her/his guilt belief. Then, it is possible that a *self-fulfilling prophecy* interaction sequence takes place by

changing the suspect's behaviour such that it complies with the interviewer's guilt belief (Merton, 1948; see also Darley & Fazio, 1980; Mortimer & Shepherd, 1999; Nickerson, 1998). Specifically, in this interaction sequence, after the interviewer has formed the guilt belief about the suspect and behaved towards the suspect in accordance with this belief, the suspect may perceive and accept the belief that led to the interviewer's behaviour and, ultimately, display behaviours that are consistent with this belief. The fact that the mocksuspects' behaviour during the guilt-biased interviews in Kassin et al. (2003) and Hill et al. (2008) was perceived by neutral observers (who knew nothing about the interviewer's guiltpresumption manipulation) provided a *behavioural confirmation* of the interviewers' belief.

The Present Research

Regardless of the guilt/innocence presumption with which interviewers approach suspect interviews, innocent suspects sometimes fail to provide convincing alibis due to the reporting of incomplete and/or inaccurate details (Olson & Charman, 2012; Olson & Wells, 2004, 2012). During a crime investigation, innocent suspects whose alibi turns out to be erroneous or incomplete may be perceived as liars (Burke, Turtle, & Olson, 2007; Dysart & Strange, 2012; Olson & Charman, 2012), and, ultimately, are at increased risk of being falsely convicted (Crozier, Strange, & Loftus, 2017; Wells et al., 1998). Thus, unintentionally providing inaccurate alibis can be very risky for innocent suspects. Kassin et al. (2003) and Hill et al. (2008) demonstrated the effects of interviewers' presumed guilt on suspects' nonverbal behaviour during interviews in terms of increased defensiveness and nervousness. However, the effect of presumed guilt on suspects' *verbal* behaviour has not been examined—an important research avenue given that police interviewers may be the first to ask suspects to provide an alibi (Burke et al., 2007) and that interviewers' presumed guilt can affect innocent suspects' behaviour during interviews in ways which neutral observers consider indicative of guilt. Thus, in the present research, we examined whether an Specifically, we examined the quantity of correct details and the accuracy rates of participants' alibis. According to Koriat and Goldsmith's (1996) model of strategic regulation of memory accuracy, *quantity measures* pertain to the number of correct details that can be remembered, and *accuracy measures* concern the number of correct details that can be correctly remembered out of the total number of details provided (correct and incorrect). Analysing the quantity of correct details and accuracy rates of details provided is the most appropriate approach to examine memory reports in general, and freely-recalled information in particular (Koriat & Goldsmith, 1996). During a police investigation, the content of suspect alibis can only be compared against the ground truth available to the interviewer. Studying the completeness and quality of alibis by directly comparing participants' report about the event with actual event details provides a more naturalistic examination of alibi content for research purposes.

After completing a number of tasks, participants provided an alibi in order to convince an interviewer of their innocence of an alleged theft. Critically, at the outset of the interview, the interviewer implied to participants that she believed that they were guilty or innocent of the theft, or that she had no specific belief regarding their responsibility for the theft. We manipulated the behaviour of the interviewer to already be in accordance with a guilt/innocence belief (cf. leading mock interviewers to believe that they are about to interview a guilty/innocent suspect as in Hill et al., 2008, and Kassin et al., 2003) because we were only interested in the effects of a presumption of guilt on mock suspects' reaction (i.e., the final phase of a self-fulfilling prophecy sequence). In addition, although in Hill et al. (2008) the mock suspects were asked questions that were generated by guilt-primed naïve participants, the interviews with these mock suspects were conducted by a confederate over a

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telephone. In the present research, in contrast, although the interviewers' words and behaviour were scripted, these interviews took place in person. This allowed the interviewer to communicate her belief to participants through her words and tone of voice, and also her facial expressions.

We identified and tested two possible predictions pertaining to the number of correct details and accuracy rates of participants' alibis. On the one hand, Granhag, Clemens, and Strömwall (2009) demonstrated that statements of guilty mock suspects interviewed under high levels of suspicion were more informative than were statements of guilty mock suspects interviewed under low levels of suspicion, presumably because the former mock suspects felt that they had to "work hard" to convince the interviewer of their innocence. We predicted that, as part a self-fulfilling prophecy sequence, participants in the guilt-belief condition would perceive and accept the interviewer's belief during the meeting with her. Consequently, participants would display a verbal behaviour consistent with that guilt belief by providing alibis that would include the largest number of correct details (i.e., highest quantity measure of correct details; Koriat & Goldsmith, 1996), similarly to the guilty mock suspects interviewed under high levels of suspicion in Granhag et al., 2009. The alibis of participants in the innocence-belief condition, in contrast, would include the smallest number of correct details. For the same rational of feeling that the burden of convincing the interviewer of their innocence is on their shoulder, we additionally predicted that the guilt-belief participants would also "work hard" to provide accurate information and thus the accuracy rates of their alibis would be the highest whereas accuracy rates of alibis in the innocence-belief condition would be the lowest.

On the other hand, Vrij, Mann, Kristen, and Fisher (2007) have shown that when interviewed with accusatory interview styles, guilty and innocent mock suspects provided the shortest statements, perhaps because accusatory interviews cause suspects to be less

forthcoming. Thus, it was also considered possible that as a result of participants in the guiltbelief condition perceiving and accepting the interviewer's guilt belief, and in response to her accusatory, guilt-presumptive behaviour, they would behave as suspects interviewed with accusatory interview styles (as participants in Vrij et al., 2007) by providing alibis that would comprise the smallest number of correct details with poorer accuracy rates. In contrast, alibis of participants in the innocence-belief condition would include the largest number of correct details and be the most accurate.

Method

Design

We used a between-subjects design with two conditions in which suspect-interviewees were led to believe that the interviewer believed they were guilty (guilt-belief condition [n=30]) or innocent (innocence-belief condition [n=30]) of a theft. Interviewees in a third condition were treated in a neutral manner by the interviewer (neutral-belief condition [n=30]). Participants were randomly assigned to one of these three experimental conditions. The dependent variables were the quantity (of correct details) and accuracy rates of the information provided in interviewees' alibis.

Participants

Ninety-nine native English-speaking students and employees at a British university completed the study. Participants were compensated with course credit or 5 GBP, with an opportunity to win 20 GBP if their alibi was judged as truthful (all participants were entered in this draw). Data for nine participants were removed from analyses because these participants did not complete the tasks correctly or because the interviewer did not administer the instructions correctly. Thus, data from the remaining ninety participants were included in the final analyses (15 males,75 females, aged 18-39 years [M = 20.84, SD = 3.71 years]). We performed a post-hoc sensitivity analysis (using G*Power 3.1.9.2; see Faul, Erdfelder, Lang,

& Buchner, 2007) to determine the effect size we might detect with reasonable power given our sample size. With an alpha of .05, a power of .80, and a total sample size of N = 90, we could expect to detect a medium effect size, f = 0.33 ($\eta^2 = .10$), for a one-way ANOVA with three conditions.

Materials

Tasks. The critical event comprised four office-type tasks. During task completion, participants performed various actions around the task room involving different objects: finding information online and writing it up on a whiteboard; matching name-tags with photos according to a written description; sorting two sets of memo cards according to colour and size; and, choosing dates for birthdays and marking them on a calendar. Participants received the instructions for the tasks in a booklet in which the first page included general instructions regarding task completion (e.g., to complete each task one at a time), followed by the instructions for each task on a separate page. The order of the tasks was counterbalanced.

Interviewer-belief scripts. A script for each interviewer-belief condition (guilty, innocent, and neutral) was developed and piloted prior to commencing the study (see Appendix for the script used in each interviewer-belief condition).

Post-alibi questionnaire. The post-alibi questionnaire contained 19 questions. First, participants were asked to rate the truthfulness of their alibi (0 = Everything I said was false, 100 = Everything I said was true). Participants also rated their motivation to appear convincing while providing their alibi (1 = Not motivated at all, 7 = Extremely motivated). As a manipulation check, participants rated how the interviewer had treated them before they provided their alibi (1 = The interviewer treated me as if I was completely innocent, <math>7 = The interviewer treated me as if I was completely guilty). To gain insight into participants' perceptions of the effects of the interviewer on their alibis, participants rated the extent to

which they thought that the behaviour and words of the interviewer affected separately (i) the informativeness (ii) and accuracy of their alibi (1 = *No effect at all on my decision to be informative/accurate* [respectively], 7 = *Completely affected my decision to be informative/accurate* [respectively]).

Next, participants rated separately how important it was to them to provide details that were as informative as possible and as accurate as possible (1 = Not important at all, 7 = Extremely important). Participants were also asked to describe the strategies they used to provide a convincing alibi. Then, participants rated how convincing they thought their alibi was (1 = Not convincing at all, 7 = Extremely convincing). Finally, using two separate scales, participants rated the likelihood that they would enter the draw for winning 20 GBP as a result of being judged as innocent based on their alibi and be asked to handwrite a second alibi as a result of being judged as guilty based on their alibi (1 = Not likely at all that I will enter the draw/be asked to handwrite another alibi [respectively], 7 = Most likely that I will enter the draw/be asked to handwrite another alibi [respectively])¹. We used the term "informativeness" and not "quantity of correct details" throughout the post-alibi questionnaire to prevent participants from confusing the meaning of quantity measure with that of accuracy.

Procedure

Task completion and accusation. Participants, who completed the study individually, were not informed of the real aim of the study to prevent them from planning an alibi in advance. After receiving the task booklet from the experimenter, participants completed the four tasks one at a time in the task room without a time limit. During task completion, participants were surreptitiously filmed to provide ground truth for the calculation of quantity

¹ The remaining eight questions were used for exploratory purposes (e.g., asked participants to rate their motivation to complete the tasks in line with instructions and note whether they thought during task completion that they would be interviewed regarding their presence in the task room).

and accuracy measures. In the task room, a wallet was placed on the keyboard of a laptop which participants had to use during three tasks. Thus, they had to move the wallet, which made them aware of its presence in the room. Once all tasks were completed, participants exited the task room and followed the experimenter to another room (i.e., the interview room). The time taken to complete all four tasks was, on average, 26 mins, SD = 5.20. En route, the experimenter stopped and asked participants to wait while she "checked something". On her return after one minute, the participants were informed that another researcher had reported a wallet stolen from the task room and that they were suspected of this theft. They were told that they would be asked to provide an alibi to account for their time in the room and that this alibi should cover what they were doing in the room while completing the tasks. Drawing on Hill et al.'s (2008) procedure, the accusation and interview took place immediately following the critical event (i.e., task completion).

Alibi provision. In the interview room, the experimenter explained to participants that in their alibi they should report truthfully all the details that they remembered about each task that they had just completed in the task room, including the sequence of actions, objects they had used, and anything that had happened as part of completing each task. They were informed that they would first be given 10 minutes to prepare their alibi, during which they would be left with a list of the names of the tasks that they had completed. The experimenter explained to the participants that if they succeeded in convincing the interviewer of their innocence, they would enter a prize draw in the chance to win 20 GBP. However, if they failed to do so, they would have to provide a second, handwritten alibi (see Hartwig, Granhag, & Strömwall, 2007, and Vrij et al., 2009, for use of similar incentives). Finally, the experimenter told participants that the interviewer would see them now, and then left the room.

The interviewer (i.e., another experimenter) entered the interview room and sat in front of the participants. Depending on the interviewer-belief condition to which participants were allocated, she conveyed to them her belief regarding their alleged responsibility for the theft of the wallet from the task room. In the guilt-belief condition, the interviewer told participants that it was a problem that they were in this situation and that their alibi *would need to be a good one* to convince her that they did not steal the wallet. In the innocence-belief condition, the interviewer apologised to participants that they had to be in this situation and assured them that they just needed to provide their alibi *to confirm* that it could not have been them who have stolen the wallet. In the neutral-belief condition, the interviewer told participants that this was a standard situation and they needed to provide their alibi *to explain* why it could not have been them who have stolen the wallet. Then, the interviewer exited the room and gave participants 10 minutes to prepare their alibi.

After preparation time, the interviewer re-entered the room and explained to participants that she would not communicate with them until they finished providing their statement. Just before the participants started to provide their alibi, the interviewer reiterated her belief to participants regarding their responsibility for the alleged theft: In the guilt-belief condition, she told them that *she was not convinced that they would succeed in convincing her* that they did not steal the wallet, whereas in the innocence-belief condition she told them that *she was sure they would succeed in convincing her* that they did not steal it. In the neutral-belief condition, she told them that *they may or may not convince her* that they did not steal the wallet. In addition to the words she used, the interviewer also behaved towards participants in a manner that reflected her belief regarding their alleged responsibility for the theft of the wallet. Specifically, she maintained a stern facial expression and used a severe tone of voice when speaking to participants in the guilt-belief condition. In the innocence-belief condition, she appeared and sounded apologetic; and in the neutral-belief condition, she

maintained a neutral expression and tone. Four experimenters conducted the interviews across all conditions to ensure that any effects of interviewer's belief could not be attributed to specific characteristics of the person communicating this belief. The first author trained the other three experimenters to administer the belief manipulations for all three conditions. One-way ANOVAs revealed that neither the number of correct details provided nor the accuracy rates of alibis differed between the interviewers, F(3, 78) = 0.95, p = .419, f = 0.18, and F(3, 78) = 0.38, p = .771, f = 0.13, respectively. Also, no significant interaction effects of the interviewer who administrated the interview and interviewer-belief conditions were found for both number of correct details provided, F(6, 78) = 1.71, p = .131, f = 0.35, and accuracy rates of alibis, F(6, 78) = 0.87, p = .523, f = 0.26.

The participants then provided their alibi, reporting about the four tasks that they had completed. All interviews were audio-recorded and the interviewer typed the alibi statement as the interviewees provided it. Finally, participants completed the post-alibi questionnaire, were debriefed, and compensated for their participation.

Coding

Alibis. The alibis were categorised into Action, Object, and Settings (see Wright & Holliday, 2007) by the first author, who was blind to the interviewer-belief conditions to which participants were assigned. To determine the correctness of the details provided, each alibi was then compared against the video clips of the participants completing the tasks. If a detail was described in the alibi in the same way as it appeared in the video clip, it was coded as "correct". If a detail was described in the alibi incorrectly, or if it was described in the alibi but did not appear in the video clip, it was coded as "incorrect". Finally, for each alibi (i.e., participant), we calculated a quantity measure by totalling the number of correct details provided across all tasks. Additionally, an accuracy rate was calculated for each participant by

dividing the total number of correct details provided by the participant by the total number of correct and incorrect details provided by the participant across all tasks.

A second coder, blind to the interviewer-belief conditions to which participants were assigned, coded 23 alibis (25.56%). Inter-coder reliability, computed using intra-class correlation coefficient (ICC), were .98, p < .001 for the quantity measure and .85, p < .001 for the accuracy rate (Two-Way Random, Consistency, Single Measures).

Alibi-provision strategies. The first author, blind to interviewer-belief conditions, defined categories of the alibi-provision strategies in a data-driven manner, meaning that the categories were derived from the strategies that participants reported they used to provide a convincing alibi. Then, two independent coders, who were also blind to interviewer-belief conditions, coded all participants' responses in accordance with those categories, and any discrepancies were discussed and resolved (for each of the four strategy categories reported, inter-coder reliability was ICC = 1.00, p < .001 [Two-Way Random, Consistency, Average Measures]).

Results

Motivation and Manipulation Checks

Table 1 presents means and standard deviations of participants' responses to the rating questions of the post-alibi questionnaire. The majority of participants (81.1%) indicated that their alibi was completely truthful (i.e., marked 95 or higher on the response scale; M = 97.27, SD = 4.97, range: 73-100). Additionally, most participants (88.9%) were motivated to appear convincing while providing their alibi (i.e., marked 5 or higher on the response scale; M = 5.99, SD = 1.24, range: 1-7). One-way ANOVAs revealed that participants' ratings of the truthfulness of their alibis and their motivation to appear convincing while providing their alibi did not differ significantly between the interviewer-belief conditions, F(2, 87) = 0.55, p = .581, f = 0.11, and, F(2, 87) = 0.96, p = .387, f = 0.15, respectively. Thus, participants

complied with instructions to provide truthful alibis and were motivated to convince the interviewer of their innocence.

As a manipulation check, we conducted a one-way ANOVA with interviewer's belief as the independent variable and participants' ratings of how the interviewer had treated them prior to alibi provision as the dependent variable. These ratings (see Table 1) differed significantly between interviewer-belief conditions, F(2, 87) = 23.79, p < .001, f = 0.74. Posthoc Tukey tests indicated that these ratings of participants in the innocence-belief condition were significantly lower (i.e., more towards feeling that the interviewer had treated them as if they were completely innocent) than those of participants in both the neutral-belief condition, p < .001, d = 1.09, 95% CI [0.55, 1.64], and guilt-belief condition, p < .001, d = 1.75, 95% CI [1.15, 2.34]. However, although the ratings of participants in the guilt-belief condition were higher (i.e., more towards feeling that the interviewer had treated them as if they were completely guilty) than those of participants in the neutral-belief condition, this difference was not significant according to the post-hoc tests, p = .052, d = 0.65, 95% CI [0.13, 1.17]. Nevertheless, this manipulation check confirms that participants in the guilt-belief condition perceived that the interviewer had treated them as if she believed they were guilty of the theft, and that participants in the innocence-belief condition perceived that the interviewer had treated them as if she believed they were innocent of the theft before they provided their alibi.

Table 1 about here

Effects of Interviewer's Belief on Quantity of Correct Details and Accuracy Rates

To examine the effects of the interviewer's belief regarding participants' responsibility for the alleged theft on participants' alibis, we conducted two one-way ANOVAs with interviewer's belief as the independent variable and quantity (of correct details) and accuracy rates as dependent variables. Means and standard deviations are presented in Table 2. In contrast to our predictions, and despite the results of the manipulation check, the number of correct details provided did not differ significantly between the interviewer-belief conditions, F(2, 87) = 1.20, p = .306, f = 0.17. Also in contrast to our predictions, the accuracy rates of the information provided by participants did not differ significantly between interviewer-belief conditions, F(2, 87) = 0.32, p = .729, f = 0.08.

Table 2 about here

Given these null results, we ran two Bayes Factor analyses with default prior scales comparing quantity of correct details and accuracy rates between the different interviewerbelief conditions. The JZS $BF_{01} = 3.90$ for quantity and $BF_{01} = 7.82$ for accuracy rates indicated that the obtained data were approximately 3.90 and 7.82 (respectively) times more likely under the null hypotheses compared with the alternative hypotheses. This provides moderate (Wagenmakers et al., 2018) and even substantial (Jeffreys, 1961; see also Dienes & Mclatchie, 2018) evidence in favour of the null hypotheses for both the quantity measure and the accuracy rates, and suggests that the present findings likely reflect a genuine absence of the predicted effects (see Dienes & Mclatchie, 2018; Lakens, McLatchie, Isager, Scheel, & Dienes, 2018).

The number of incorrect details and the total number of (correct and incorrect) details provided by participants are presented in Supplementary Materials.

Perceptions During Interaction with The Interviewer

We conducted two one-way ANOVAs with interviewer's belief as the independent variable and participants' ratings of the extent to which they thought the behaviour and words of the interviewer affected the informativeness and the accuracy of their alibi as the dependent variables. Participants' ratings (see Table 1) of the extent to which they thought the interviewer affected the informativeness and the accuracy of their alibi did not differ significantly between the interviewer-belief conditions, F(2, 87) = 0.87, p = .421, f = 0.14, and, F(2, 87) = 0.02, p = .978, f = 0.02, respectively.

Perceptions and Verbal Strategies During Alibi Provision

One-way ANOVAs with interviewer's belief as the independent variable revealed no differences in participants' ratings of how important it was to them to provide details that were as informative as possible (see Table 1), F(2, 87) = 0.98, p = .379, f = 0.15, and how important it was to them to provide details that were as accurate as possible without guessing, F(2, 87) = 1.70, p = .189, f = 0.20.

The strategies participants reported using to provide a convincing alibi are presented in Table 3, focusing on strategies pertaining to the informativeness and accuracy of the information provided. The majority of participants (66.67%) reported that it was important to them to provide an informative alibi to convince the interviewer that they were occupied with completing the tasks and hence could not had stolen the wallet. A chi-square test of independence reveled that the relation between the interviewer-belief conditions and participants' tendency to report the informative-alibi strategy was not significant, X^2 (2, N =90) = 1.12, p = .572. We did not conduct chi-square tests with respect to the three other strategies reported by participants due the small expected frequency in each cell.

Table 3 about here

A one-way ANOVA with interviewer's belief as independent variable revealed a significant difference in participants' ratings of how convincing they thought their alibi was (see Table 1), F(2, 87) = 5.37, p = .006, f = 0.35. Post-hoc Tukey tests showed that ratings in the innocence-belief condition were significantly higher than those in the neutral-belief condition, p = .005, d = 0.79, 95% CI [0.26, 1.31], meaning that the former perceived their

alibi as more convincing than did the latter. However, no significant differences in these ratings were found between the guilt-belief condition and both the innocence-belief condition, p = .438, d = 0.34, 95% CI [-0.17, 0.85], and neutral-belief condition, p = .115, d = 0.53, 95% CI [0.02, 1.05].

Finally, a one-way ANOVA with interviewer's belief as independent variable revealed that participants' estimations of the likelihood that they would enter the prize draw differed significantly between the interviewer-belief conditions (see Table 1), F(2, 87) = 3.91, p =.024, f = 0.30. Post-hoc Tukey tests showed that the draw-likelihood estimations were significantly higher in the innocence-belief condition than in the neutral-belief condition, p =.034, d = 0.66, 95% CI [0.14, 1.18]. However, these estimations did not differ significantly between participants in the guilt-belief condition and in both the innocence-belief condition, p = .064, d = 0.60, 95% CI [0.08, 1.12], and neutral-belief condition, p = .963, d = 0.07, 95% CI [-0.44, 0.57]. Participants' estimations of the likelihood that they would be asked to handwrite a second alibi also differed significantly between interviewer-belief conditions, F(2, 87) =3.74, p = .028, f = 0.29. Post-hoc Tukey tests showed that the second-alibi likelihood estimations were significantly lower in the innocence-belief condition than in the neutralbelief condition, p = .020, d = 0.68, 95% CI [0.16, 1.20]. However, these estimations did not differ significantly between participants in the guilt-belief condition and in both the innocence-belief condition, p = .362, d = 0.36, 95% CI [-0.15, 0.87], and neutral-belief condition, *p* = .362, *d* = 0.35, 95% CI [-0.16, 0.86].

Discussion

In light of previous findings demonstrating effects of an interviewer implying their belief about the likely guilt of an interviewee on the non-verbal behaviour of innocent suspects during interviews (e.g., Hill et al., 2008; Kassin et al., 2003), we examined whether presumed guilt affected innocent suspects' verbal behaviour during interviews in terms of the

quantity of correct details provided and accuracy of their alibis. Our manipulation was successful to the extent that participants in the guilt-belief and innocence-belief conditions perceived that, before they provided their alibi, the interviewer believed they were guilty and innocent (respectively) of the theft. However, we did not observe significant differences between the interviewer-belief conditions in terms of the quantity of correct details and accuracy rates of the alibis provided. Given these null results, it is important to explore the factors that might account for these findings.

Previous research suggests that behavioural-confirmation effects are larger when targets believe that they may interact with the perceiver again (Haugen & Snyder, as cited in Snyder & Stukas, 1999). It may be that if participants (i.e., the targets) in the guilt-belief condition thought that they would interact with the interviewer (i.e., the perceiver) again, they would have provided an alibi that would confirm the interviewer's guilt belief. Nonetheless, only a single interviewer-interviewee interaction took place also in the Kassin et al. (2003) and Hill et al. (2008) studies, both of which reported effects of presumed guilt on interviewees' behaviour. One important difference between their studies and the present one may lie in the nature of the interaction between interviewer and interviewee. Interactions in these previous studies involved back-and-forth questioning which generated more opportunities for the interviewers to communicate their guilt belief to the participants, reinforce the presumption of guilt and, potentially, ratchet up the pressure on the interviewee. In contrast, as we were interested in the effects of interviewer's presumption of guilt on the alibi statement provided (cf. responses to continuous questioning), the interviewer conveyed her belief to the participants before they provided their alibi only (which was nevertheless sufficient for participants in the guilt- and innocence-belief conditions to perceive the biased treatment of the interviewer). Future research might examine the effects of an interviewer's

presumed guilt on alibi provision across several interactions, as well as on different types of statements (e.g., a single alibi statement and answers to a set of questions).

Despite the null findings, it may be that the participants in the guilt-belief condition did behave in response to the interviewer's guilt-led behaviour. It has been suggested that when the perceiver's opinion matters to the target and when the perceiver's impression of the target is inaccurate in the eyes of the target, the target will act to prove the perceiver wrong (e.g., Darley & Fazio, 1980; Snyder & Stuaks, 1999). Given participants' high levels of selfreported motivation to appear convincingly innocent, it appears that the interviewer's opinion mattered to all participants. Moreover, knowing that they were undoubtedly innocent of the theft, participants in the guilt-belief condition likely disagreed with the interviewer's impression of them (i.e., her guilt belief). Consequently, to prove the interviewer 'wrong', these participants opted to provide relatively detailed and informative alibis comprising a large number of correct details. Alternatively, as was suggested by Granhag et al. (2009) with respect to their participants in the high-suspicion level condition, participants in the guiltbelief condition in the present research may have felt that it was their responsibility to convince the interviewer that they were innocent.

However, a difference between the low-suspicion condition in Granhag et al. (2009) and the innocence-belief condition in the present research may account for null findings in the present research. In Granhag et al. (2009), participants in the low-suspicion condition did not feel that being informative would benefit them as did participants in the high-suspicion condition, resulting in difference in the informativeness of statements between suspicion-level conditions. In contrast, in the present research, participants in the innocence-belief condition presumably felt that an informative statement could convey their innocence (see Hartwig et al., 2007; Kassin & Norwick, 2004). Consequently, their statements were as informative as

RUNNING HEAD: PRESUMED GUILT AND INNOCENT SUSPECTS were those of participants in the guilt-belief condition, resulting in no difference in the number of correct details provided between the interviewer-belief conditions.

With respect to the accuracy rates obtained in participants' alibis, these are high across all conditions. This is not entirely surprising, given that free reporting tends to produce reports comprised of accurate information (see Koriat & Goldsmith, 1994, 1996). However, another possibility is that the short time interval between task completion and alibi provision (in accordance with previous methodologies, e.g., Hill et al., 2008) may account for the high accuracy rates observed (and, consequently, for the lack of difference in accuracy rates between conditions). As memory decays over time, innocent suspects may find it difficult to recall an accurate version of past events, potentially making them more susceptible to the behaviour of a guilt-presumptive interviewer. While there are applied contexts in which possible suspects might be initially questioned at the crime scene or nearby by a guilt-presumptive interviewer very soon after an incident has occurred, future research should also examine the effects of interviewer's presumption of guilt on alibis of innocent suspects when there has been an extended delay between the critical event and the interview.

It is worth commenting on the perceptions of participants in the neutral-belief condition, where responses to the manipulation question ("*Before you provided your alibi*, *how did the interviewer [i.e., to whom you provided your alibi] treat you?*") were significantly different from those in the innocence-belief condition but not from those in the guilt-belief condition. From a statistical point of view, the medium-to-large (Cohen, 1969) effect size (d = 0.65) for the difference between the means of perceptions of participants in the guilt- and neutral-belief conditions, and the fact that the confidence interval (95% CI [0.13, 1.17]) did not include zero, may suggest that a difference exists between these two groups. However, it may be possible to explain this non-significant difference with reference to an inevitable resemblance in the personal experience between being treated in a neutral

manner versus guilty manner when being interviewed as a suspect. According to Snyder and Stukas (1999), when a perceiver acts towards the target in accordance with a neutral expectation, this "might give targets about whom nothing is known the benefit of the doubt" (p. 291), and the perceiver's behaviour is likely to be perceived by the target as conveying more of a positive expectation. However, for participants in the neutral-belief condition, not receiving cues that the interviewer believed they were innocent, combined with being suspected of a crime, may have led them to feel fully responsible to convince the interviewer of their innocence (i.e., like guilty suspects). Thus, their responses to the manipulation question resembled those of participants in the guilt-belief condition.

Several other limitations are associated with the current research. Participants' potential 'punishment' for failing to convince the interviewer of their innocence was clearly not as severe as those potentially faced by innocent suspects in real-life cases. Future research on the effects of interviewer's presumed guilt on innocent suspects' verbal behaviour should manipulate the severity of the outcomes presented to participants of their success and failure to convince the interviewer of their innocence. Additionally, in common with previous research (e.g., Olson & Charman, 2012), and given that being mistakenly believed to be guilty is detrimental to innocent suspects, the present research included only innocent mock suspects. However, future research should examine the strategies of guilty suspects under similar circumstances. Finally, although the Bayes factors observed ($BF_{01} = 3.90$ for quantity of correct details and $BF_{01} = 7.82$ for accuracy rates) suggest that the present findings likely reflect a genuine absence of the predicted effects of the interviewer's belief-led behaviour towards participants on their alibis (see Dienes & Mclatchie, 2018; Jeffreys, 1961; Lakens, McLatchie, Isager, Scheel, & Dienes, 2018), we acknowledge the possibility of the study being underpowered. Thus, future research should attempt to replicate the present study using a larger sample size.

From an applied perspective, the present findings suggest that when it comes to their verbal behaviour, innocent suspects may remain informative despite a single guiltpresumptive treatment from the interviewer. They may appear defensive (Hill et al., 2008; Kassin et al., 2003), but that is not to say that the information they provide is always more likely to be incorrect and/or incomplete. Nevertheless, it would be a mistake to conclude that when interviewers approach interviews with the belief that suspects are guilty, this presumption will cause no harm to innocent suspects. It is important to consider that once suspects respond to the interviewer's question/provide their alibi, the interviewer interprets this response. Even if the target did not respond in accordance with the perceiver's expectation, the perceiver is unlikely to change her/his belief about the target and may instead maintain the mistaken belief by attributing the target's opposite reaction to situational rather than dispositional factors (see, e.g., Darley & Fazio, 1980). It may be that, during an investigation, a guilt-presumptive interviewer learns that a (innocent) suspect was correctly informative during a recent interview, but may fail to attribute this verbal behaviour to the suspect's actual innocence. Consequently, the interviewer may continue to believe that this suspect is guilty and may thus continue to interview this suspect in manners coloured by this belief. Future research could examine whether a disconfirming verbal behaviour on the part of the suspect changes or maintains a guilt-presumptive interviewer's initial belief.

Even with the short interaction used in the present research, participants perceived the guilt- and innocence-led behaviour of the interviewer. Thus, the present findings demonstrate the importance of examining the effects of interviewers' guilt presumption on innocent suspects' alibis even during such short interactions. Such examinations, and any examinations of effects of guilt presumptions on innocent suspects' behaviour, are needed as long as there continue to be cases in which police interviewers approach interviews with suspects when already believing they are guilty, even when trained to avoid such behaviour.

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Table 1

		Interviewer's belief	
Measure	Guilty	Innocent	Neutral
Self-reported truthfulness	97.00 (4.69) _a	98.03 (3.48) _a	96.77 (6.39) _a
Motivation to convince interviewer of innocence	6.23 (0.94) _a	5.93 (1.29) _a	5.80 (1.45) _a
Perceived interviewer's belief	4.87 (1.14) _a	2.67 (1.37) _b	4.10 (1.24) _a
Perceived interviewer's influence on:			
Informativeness	4.00 (2.32) _a	4.37 (1.83) _a	3.70 (1.66) _a
Accuracy	3.43 (2.14) _a	3.53 (1.85) _a	3.47 (1.59) _a
Self-reported importance to be:			
Informativene	6.70 (0.60) _a	6.43 (0.97) _a	6.43 (0.94) _a
Accurate	6.80 (0.48) _a	6.50 (0.73) _a	6.47 (1.01) _a
Convincing alibi	5.50 (0.97) _{ab}	5.87 (1.20) _a	4.90 (1.27) _b
Perceived likelihood to:			
Enter prize draw	3.93 (1.48) _{ab}	4.80 (1.42) _a	3.83 (1.51) _b
Provide second alibi	3.37 (1.22) _{ab}	2.90 (1.37) _a	3.83 (1.37) _b

Means and Standard Deviations of Participants' Responses to Motivation and Manipulation Questions in the Post-Alibi Questionnaire

Note. Means that do not share a common subscript within row are statistically different at p < .05.

Table 2

	Quantity		Accuracy Rates	
Interviewer's Belief	М	SD	М	SD
Guilty	238.67	108.50	.96	0.03
Innocent	214.23	104.81	.96	0.03
Neutral	201.57	62.73	.97	0.03
Total	218.16	94.54	.96	0.03

Means and Standard Deviations of the Dependent Variables

Table 3

Participants Self-Reported Verbal Strategies Used to Provide a Convincing Alibi

Describe the strategy or strategies you used in	Interviewer's Belief			
order to appear as truthful and convincing as possible while you were providing your alibi regarding the disappearance of the wallet	Guilty	Innocent	Neutral	
Provide as many details as possible; provide specific details	21 (70.0%)	24 (80.0%)	24 (80.0%)	
Be accurate; avoid guessing and/or making-up details; inform the interviewer if unsure about details provided	5 (16.7%)	2 (6.7%)	4 (13.3%)	
Not to provide too many details (e.g., so to not contradict oneself)	1 (3.3%)	1 (3.3%)	0 (0.0%)	
Guess details	1 (3.3%)	1 (3.3%)	0 (0.0%)	

Note. Numbers indicate frequency of reporting each strategy by type of interviewer-belief condition. Parenthesis present percentage of participants per interviewer-belief condition who reported each strategy. Each "suspect" could report a strategy more than once and from more than one category.

Appendix: Script Used in Each Interviewer-Belief Condition

Guilt-Belief Condition

Providing this alibi is part of our formal procedure in instances involving a theft.

It's a *problem* that we have to be in this situation.

You will *need* to provide this alibi.

But let me tell you this—your alibi will need to be *a good one to convince me* that you did not steal the wallet.

After preparation time

With this alibi you *could* convince me that you did not steal this wallet.

I am not sure whether you will succeed.

Innocence-Belief Condition

Providing this alibi is part of our formal procedure in instances involving a theft.

I apologize that I have to put you in this situation.

I have to ask you to provide this alibi.

But let me calm you down—you just need to provide your alibi *to confirm* that it could not have been you who has stolen the wallet.

After preparation time

With this alibi you can convince me that you did not steal this wallet.

I am sure you will succeed.

Neutral-Belief Condition

Providing this alibi is part of our formal procedure in instances involving a theft.

This is a standard situation in which you are asked to provide your alibi.

You need to provide your alibi *to explain* why it could not have been you who has stolen the wallet.

After preparation time

With this alibi you may or may not convince me that you did not steal this wallet.