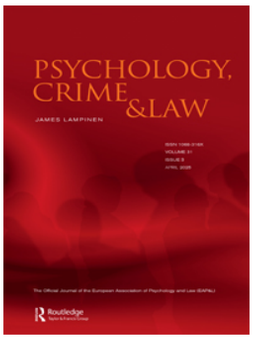

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Your alibi better not be a-changin': the effect of alibi change and interview strategy on perceptions of alibi witness's credibility, suspect innocence, and interview quality

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ABSTRACT

Across three experiments, we assessed the effect of change in an alibi witness' account and interviewer's strategy on perceptions of alibi witness' credibility, suspect innocence, and interview quality. Participants listened to a mock-interview with an alibi witness who, as the interview progressed, either altered or maintained their alibi statements in response to an interviewer's implicit threat (Experiments 1-3), explanation of how memory works (Experiments 1-3), explicit threat (Experiments 2 & 3), or no attempt to influence the alibi witness's account (i.e. control condition, Experiments 2 & 3). A mini-meta-analysis showed that changes in the alibi witness' account negatively impacted ratings of suspect innocence ($M_d = -1.21$) and alibi witness credibility ($M_d = -.79$). The effect of changes in an alibi witness's statement as a function of interview strategy was largest for the control ($M_d = -0.65$) and implicit threat ($M_d = -0.65$) conditions, followed by the explicit threat ($M_d = -0.51$), and memory-based explanations ($M_d = -0.42$). The implications of these findings for alibi witnesses, suspects, and criminal investigations are discussed.

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Alibi witness; interviewing; persuasion; memory; credibility

In November 2006, Mervyn Spence was shot and killed outside a nightclub in Brampton, Ontario, Canada. Investigators initially cleared Eric 'Action' Morgan after numerous independent alibi witnesses said Morgan was inside the nightclub serving birthday cake when the shooting occurred outside (CBC, 2014). Three years later, in search of new leads, investigators began re-interviewing the original alibi witnesses and pressured them to change their expressed level of certainty regarding Morgan's whereabouts when the shooting occurred. For example, Brian Cox – a close friend of Eric Morgan and strongest alibi witness – underwent an 8-hour interview where he was told that he was lying (i.e. he was providing a false alibi), and may face a charge of accessory to murder after the fact and jail time if he did not cooperate. Cox capitulated to the pressure and changed his account to agree with the interrogator that Morgan may not have been standing next

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to him inside the nightclub when the shooting occurred. Morgan was charged with homicide and spent three years in prison before his trial. The judge in Morgan's trial dismissed the charges and ruled that the abusive and threatening tactics used by interviewers caused central witnesses to erroneously change their alibi and (R. v. Morgan, 2013).

What are triers of fact to make of a *change* in an alibi witness' account? Unfortunately, no empirical research has examined how people perceive an alibi witness when they change their account and how those changes affect perceptions of suspects. Related research on eyewitness testimony, however, suggests that coherent and consistent accounts from witnesses tend to be considered more credible by jurors; that is, they tend to discount how normal memory processes may lead to changes in reported experiences (e.g. Berman & Cutler, 1996; DePaulo et al., 2003). In a related area of assessments of suspects (i.e. alibi provider), research has shown that changes in an alibi, regardless of whether it weakened or strengthened the alibi, can have a detrimental effect on perceptions of suspect credibility (e.g. less belief in the credibility of the alibi; Culhane et al., 2008; Culhane & Hosch, 2012). Even further, a survey of a sample of 63 law enforcement officers in Northeast United States revealed that 81% believe that suspects who change their alibi were originally lying (as opposed to being mistaken; Dysart & Strange, 2012). Therefore, it is reasonable to suggest that, like an eyewitness or suspect, an alibi witness who change their account would be distrusted by the triers of facts. The change in the alibi witness account and the reduction of their credibility might also cause collateral damage, whereby people's perception of a suspect is damaged because the alibi witness account is meant to corroborates the suspect's alibi.

If changes in an account are likely to lead to an alibi witness' credibility being harmed, the question remains as to whether the negative reaction to such changes would be lessened if the alibi witness had a reasonable explanation for those changes (e.g. they were pressured or made changes because they detected an error in their memory)? According to Vrij (2014), perceptions of credibility are impacted by the extent to which a plausible justification is provided for the change. For example, someone may perceive changes in an account as an indicator of honesty if the perceiver is aware that human memory is fallible or that persuasion can cause someone to change their story. Conversely, people may distrust an account that is changed when the change does not appear to be paired with a plausible explanation.

Two ubiquitous strategies used by police investigators to persuade interviewees are minimization (e.g. downplaying the moral seriousness associated with a specific offence) and maximization (e.g. exaggerating the perceived consequences of not cooperating with the interviewer; Kassin et al., 2010; Russano et al., 2005). Empirical evidence has shown that such persuasive interviewing strategies can cause suspects to change their claim of innocence to an admission of guilt, and that these false confessions sometimes lead to miscarriages of justice (Drizin & Leo, 2004; Horgan et al., 2012; Russano et al., 2005). Despite these findings, the frequency with which investigators use these potentially dangerous persuasive interviewing strategies remains high (Kassin et al., 2010). Thus, investigators appear to disregard the potential impact of the method used to elicit changes in an account on their investigations and the subsequent prosecution. Moreover, research has also shown that jurors fail to detect the presence of persuasive interviewing practices, and others, who may detect it, fail to connect persuasion with the potential provision of a false statement (e.g. Kassin & Sukel, 1997; Leo & Liu, 2009). Lay-people (e.g. jurors) and investigators alike therefore appear to believe that the use

of persuasion during an interview or interrogation to obtain evidence that matches an investigative theory is unlikely to have a negative impact on legal proceedings.

While persuasive interviewing strategies have been mostly documented in suspect interviews, and have been the subject of much research, the Morgan case illustrates that such practices are also being used to influence the accounts provided by alibi witnesses. Although the Canadian justice system contains legal safeguards to prevent coerced statements from suspects being admitted into court (e.g. juridical checks for the presence of oppression, threats, and promise, see R. v. Oickle, 2000), similar protections do not exist for witnesses. That is, it is left up to judges and jurors to detect the presence of psychological pressure and persuasion and decide whether it had undue influence on the witness statement. Empirical research has shown that the concerns about the effect of persuasive interviewing practices on suspects also apply to witnesses. For instance, Fallon and Snook (2020; 2021) found that people recognize explicit forms of coercion (e.g. threats) more than subtle forms of persuasion (e.g. minimization) and generally think that all leniency-related strategies (i.e. explicit and implicit) are appropriate when gathering statements from witnesses.

The current research

The effect of changes in a witness' account on assessments of alibi witness credibility or suspect innocence has yet to be examined. Like suspect interviewing research, burgeoning research and anecdotal evidence (e.g. the case of R. v. Morgan, 2013) suggests that negative outcomes can occur when persuasive and coercive interviewing tactics are used when interviewing witnesses (e.g. false statements, wrongful arrests, and the incarceration of innocent individuals; Loney & Cutler, 2016). It also appears that some triers of fact are seemingly unaware, or are dismissive, of these consequences in the witness context (Fallon & Snook, 2021; Kaplan et al., 2020). Moreover, researchers have yet to examine perceptions of credibility when a witness alters the certainty of their account in response to different types of interviewing strategies; this is the main goal of the current research. We also aimed to examine the interplay between different interview strategies and alibi witness reactions to those strategies (i.e. change or do not change their account) with respect to assessments of alibi witness credibility, suspect innocence, and interview quality.

Experiment 1

Based on the reviewed literature, we hypothesized that a change in an account would lead to reduced perceptions of the alibi witness' credibility. We also hypothesized that participants would be relatively insensitive to the any persuasive interviewing approaches that preceded the changes in the alibi witness's account. Analyses for this and the subsequent two experiments consist of between-participant ANOVAs, with an emphasis on associated effect sizes and 95% confidence intervals to interpret the size of the effect.

Method

Participants

Participants ($N = 176$) were undergraduate students enrolled in introductory psychology courses at Ontario Tech University, Canada. Twelve participants failed the attention

checks, resulting in a final sample size of 164. A post-hoc power analysis conducted with G*Power revealed that our power was 0.89 to detect a medium effect ($d = 0.50$) for this design, obtained sample size, and an alpha value of .05. Of the 163 participants who reported their age, the mean was 20.09 years ($SD = 4.33$, *Range* = 17-52). Of the 163 participants who reported their gender, approximately 72% ($n = 117$) were female, and 28% ($n = 46$) were male. Of the 163 participants who reported their ethnicity, approximately 33% ($n = 54$) self-identified as White/Caucasian, 32% ($n = 53$) as South Asian, 12% ($n = 19$) as Black, and the remaining 23% ($n = 38$) identified as one of several other ethnicities.

Design

A 2 (interview strategy: memory vs. threat) x 2 (account change: change vs. no change) between-subjects design was used. Participants were randomly assigned to one of the four conditions. In the memory/change condition, the interviewer explains the fallibility of memory, which is followed by the alibi witness changing his account (i.e. expressing less certainty about the account). In the memory/no change condition, the interviewer explains the fallibility of memory, but the alibi witness sticks to his account. In the threat/change condition, the interviewer highlights the potential legal consequences of false statements (i.e. maximization or implicit threat), which is followed by the alibi witness changing his account. In the threat/no change condition, the interviewer highlights the potential legal consequences of false statements (i.e. maximization) but the alibi witness sticks to his account.

The dependent variables were the assessments of (1) the alibi witness' honesty, accuracy, and believability; (2) the suspect's innocence; and (3) interview quality. We asked participants to make these assessments before and after the manipulation of the independent variable (i.e. time 1 and time 2). We calculated the difference in their ratings between time 2 and time 1 for each measure (i.e. time 2 rating minus time 1 rating; henceforth referred to as *difference score*). For example, if a participant initially rated the believability of alibi witness as '6' (i.e. time 1), listened to the content of the interview after the manipulation, and then rated the believability of the alibi witness as '5' (i.e. time 2), the difference score for alibi witness believability would be '−1'. A negative difference score means that the participant rendered a less favorable rating after the manipulation and a positive difference score means the participant rendered a more favorable score after the manipulation.

Given the similarity among the perceptions of the alibi witness, we sought to determine if it would be appropriate to combine the three measures (i.e. honesty, accuracy, believability) by calculating the Cronbach's alpha and intercorrelations of the three scales for each study. Across the three experiments, the observed Cronbach's alphas ranged from .77 – .83 and inter-correlations between scales ranged from .43 to .63. We therefore combined the three variables into one aggregate variable termed *Credibility* in each experiment.

Materials

The following material was used in the experiment in sequential order: (1) consent form and demographic questions, (2) instructions, (3) an audio of case overview, (4) an audio-recording of half of a mock investigative interview, (5) measures of perceptions of the alibi witness' credibility, suspect innocence, and interview quality, (6) the remainder of the

audio-recorded mock investigative interview, and (7) the same measures of perception (see point 5 above).

Consent and demographics. The consent form outlined the purpose and procedure of the experiment. Next presented were various demographic questions, including self-reported age, gender, and ethnicity.

Instructions. The instructions provided basic information regarding the audio-recorded interview stimuli that would be presented on the next page and asked participants to ensure their computer was functioning properly (e.g. volume was working), their current surroundings were absent of distractions prior to starting the video, and to only listen to the recording a single time without stopping.

Case overview. The following case details were presented to participants in the form of a 56 s audio:

> Ashton Cox was shot and killed in an alley outside the Flagship Bar in Hamilton, Ontario approximately two years ago. Despite an extensive investigation, the police were not initially able to identify a viable suspect. Recently new evidence has come to light that suggested that Robert Smith – who was a past associate of Ashton - may be responsible for the crime. Robert was subsequently questioned and did freely admit to being at the Flagship the night of the incident but claimed to be inside with friends when the shooting occurred. No security cameras were present in the Flagship that evening. However, the police have been able to locate Brian Jones, an acquaintance of Robert, who was present with Robert at the Flagship that evening. Brian has now been brought in to be questioned regarding his recollection of the evening in question.

Audio-recording of interview. The interview consisted of a two-part audio recording of a mock interview between an investigator and an alibi witness who ostensibly was present with the suspect the night of the crime [all video links and supplementary analyses are available on OSF: https://osf.io/smxy7/]. In the first part of the interview recording (3 min 47s), which was heard by all participants, the alibi witness provided an account in which he asserts he was inside with the suspect at the time of the shooting and therefore the suspect could not have committed the crime. In the second part of the interview, there were four versions of the recording. In the version for the memory/change condition (3 min 3s), the police interviewer provided a description of how memory works on its reconstructive and potentially fallible nature and how this might lead to misremembering, and in response to this information, the alibi witness changed his account to state that he was no longer 100% certain about the original account. In the version for the memory/no change condition (3 min), the police interviewer provided the memory explanation, but the alibi witness maintained his confidence in his original account. In the version for the threat/change condition (3 min 11s), the police interviewer outlined the legal consequences of providing false information (i.e. potentially charged as an accessory-after-the-fact), and in response to this information, the alibi witness changed his account to state that he was no longer 100% certain about the original account. In the version for the threat/no change condition (3 min 10s), the police interviewer outlined the legal consequences of providing false information, but the alibi witness maintained

his confidence in his original account. All versions were identical except for the manipulations.

Attention check. Two attention check questions regarding the location of the alleged incident and the reason for the gathering were asked respectively after participants listening to the case overview and the first-part interview where the alibi witness provided his initial account.

Measures

A 5-item measure was developed to assess dependent variables in the study. Participants indicated agreement with statements about their perceptions of the alibi witness (i.e. honesty, accuracy, believability), suspect innocence, and the overall interview quality using a 7-point scale ranging from *1 = Strongly Disagree* to *7 = Strongly Agree***.** Specifically, the five statements were presented as follows: 'The witness (i.e. Brian) was honest'; 'The witness' (i.e. Brian's) account of the event was accurate'; 'The witness (i.e. Brian) was believable'; 'The witness' (i.e. Brian's) statement makes me believe the suspect (i.e. Robert) was innocent'; and 'The interviewer (i.e. Cst. Baldwin) conducted a good interview'. The order of all statements was randomized. Participants were also asked to provide any reasoning for their decisions by typing into the provided text box.

Procedure

The study was delivered entirely as an online survey through Qualtrics. After reading the informed consent form and confirming their willingness to continue, participants provided their demographic information, read instructions and listened to an audio of a case overview. After that, participants listened to the first-part audio recording of a mock alibi witness interview, and then they were asked to complete a 5-item measure about their perceptions of the interview. Once they finished the measure, participants were randomly assigned to listen to one of the four second-part recordings of the interview. After listening to the audio, participants again were requested to complete the 5-item measure. Lastly, a debriefing sheet was provided to explain the purpose of the study. Participants were compensated 1% in their relevant undergraduate psychology course in exchange for their participation.

Results and discussion

Credibility

Mean difference score for the omnibus measure of witness credibility, and associated 95% confidence intervals, as a function of account change and interview strategy are shown in Figure 1. Participants in the account change conditions ($M = -0.98$, $SD = 1.29$) reduced their credibility ratings more than those in the no change conditions ($M = -0.07$, $SD = 0.93$), and the effect size was large, $d = -0.81$, 95% *CI* [−1.13, – 0.49]. Participants in the threat conditions ($M = -0.70$, $SD = 1.32$) reduced their credibility ratings more than those in the memory conditions ($M = -0.37$, $SD = 1.08$), but the effect size was small, and the true direction of the effect is indeterminate given the confidence intervals, $d = -0.27$, 95% *CI* [– 0.58, 0.03]. A two-way ANOVA revealed that there was a significant effect of account change, $F(1, 160) = 29.24$, $p < .001$. There was no main effect of interview

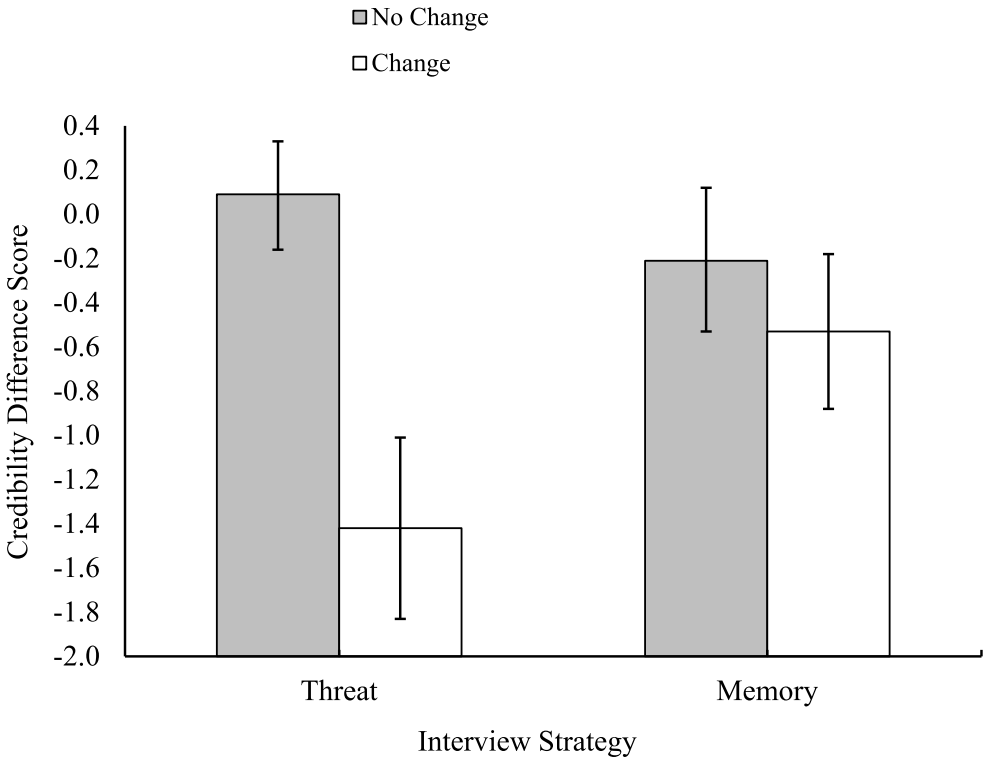

Figure 1. Credibility Difference Score as a Function of Account Change and Interview Strategy in Experiment 1.

strategy, $F(1, 160) = 3.15$, $p = .08$, but there was a statistically significant interaction effect between account change and interview strategy, $F(1, 160) = 12.26$, $p < .001$. These data suggests that participants tended to distrust the witness when they reduced their confidence in their account. Moreover, an account change preceded by a threat led to greater distrust than when the account change was preceded by an explanation about the fallibility of memory.

Suspect innocence

The mean difference scores for assessments of suspect innocence for the account change conditions ($M = -1.60$, $SD = 1.49$) was larger than those in the no change conditions ($M = 0.05$, $SD = 1.13$), and the effect size was large, $d = -1.24$, 95% *CI* [−1.58, – 0.91]. Difference scores in the threat conditions ($M = -0.95$, $SD = 1.47$) were larger than those in the memory conditions ($M = -0.62$, $SD = 1.62$), but the effect size was small, and the true direction of the effect is unclear, $d = -0.21$, 95% *CI* [−0.52, 0.09]. A two-way ANOVA showed that there was a main effect of account change, $F(1, 160) = 63.41$, $p < .001$. Interview strategy did not have a statistically significant impact on perceptions of suspect innocence, $F(1, 160) = 2.02$, $p = .16$. The interaction effect did not achieve statistical significance, $F(1, 160) = 2.05$, $p = .15$. These results suggest that suspects are likely to be penalized more when the alibi witness changes their account, and the detrimental effect for the suspect is likely to be a little higher when the witness changes their account in the

face of persuasion (compared to a changed account that was associated with a police explanation of how memory works).

Interview quality

The mean interview quality difference scores were similar for those in account change ($M = 0.22$, $SD = 1.07$) and no change conditions ($M = 0.19$, $SD = 1.27$), and the effect size was negligible, $d = 0.03$, 95% *CI* [−0.28, 0.33]. As well, mean interview quality difference scores for participants in the threat conditions ($M = 0.19$, $SD = 1.10$) were comparable to those in the memory conditions ($M = 0.22$, $SD = 1.24$), and the effect size was negligible, $d = -0.03$, 95% *CI* [−0.33, 0.28]. A two-way ANOVA revealed that there was no significant effect of account change, $F(1, 160) = 0.03$, $p = .86$, or of interview strategy, $F(1, 160) = 0.03$, $p = .86$. There was also no interaction between account change and interview strategy, $F(1, 160) = 0.17$, $p = .68$. These data suggest that the use of a persuasive approach to elicit an account change will not impact perceptions of interview quality more than the use of a neutral approach. In other words, this finding reinforces previous findings that laypeople do not appear concerned about how persuasion may pose a risk of influencing interviewees to provide a false statement.

Experiment 2

In our replication of Experiment 1, we decided to implement three changes for Experiment 2. First, as for the interview strategy, we added a more salient manipulation of threat (i.e. major threat), where the interviewer explicitly threatens the alibi witness with serious legal consequences if he does not change his account. We believed this would allow for a stronger test of the potential link between interview strategy and perceptions of the interview outcome. Second, we added a baseline for the interview strategy variable (i.e. control), where the interviewer does not provide any input prior to the alibi witness modifying his account or sticking to his account. This would allow us to further assess the impact of our manipulations against a group that did not receive any contextual interview information. Third, to gain a more accurate understanding of participants' perceptions of the interviewer's actions during the interview, we added a measure of the appropriateness of the interviewer's behavior. Thus, we altered our design by adding two levels (i.e. major threat, control) to the independent variable of interview strategy, and one dependent measure (i.e. appropriateness).

Method

Participants

Participants ($N = 369$) were undergraduate students from the same university as in Experiment 1. Twenty-five participants failed the attention checks, resulting in a final sample size of 344. A post-hoc power analysis revealed that our power was 0.98 to detect a medium effect ($d = 0.50$) for this design, obtained sample size, and an alpha value of .05. Of the 341 participants who reported their age, the mean was 21.04 years ($SD = 4.84$, *Range* = 17-45). Of the 342 participants who reported their gender, approximately 61% ($n = 208$) identified as female, 38% ($n = 130$) as male, and 1% ($n = 4$) as other. Of the 343 participants who reported their ethnicity, approximately 35% ($n = 119$) self-

identified as White/Caucasian, 31% ($n = 108$) as South Asian, 13% ($n = 44$) as Black, and the remaining 21% ($n = 73$) identified as one of several other ethnicities.

Design, materials, and procedure

A 4 (interview strategy: memory, threat, major threat, control) x 2 (account change: change vs. no change) between-subjects design was used. Participants were randomly assigned to one of the eight conditions. The stimuli consisted of a two-part interview recording as Experiment 1 but with four more versions of the second part of the recording []. In the memory conditions (i.e. memory/change, memory/no change) and the threat conditions (i.e. threat/change, threat/no change), the same manipulations were used as Experiment 1. In the major threat/change condition (2 min 46s), the interviewer strongly suggests that the alibi witness will face serious legal consequences if he maintains his account, which is followed by the alibi witness changing his account. In the major threat/no change condition (2 min 45s), the interviewer strongly suggests that the alibi witness will face serious legal consequences if he maintains his account, but the alibi witness sticks to the account. In the control/change condition (1 min 16s), the interviewer has no input that would seemingly prompt a change in the alibi witness' account, but the alibi witness modifies his account; that is, the change in the alibi witness account was seemingly spontaneous. In the control/no change condition (1 min 14s), the interviewer has no input that would seemingly prompt a change in the alibi witness' account, and the alibi witness sticks to his account. The control conditions were shorter than others in length since there was no interview strategy used to persuade the alibi witness to change his account.

The dependent variables were difference scores for the measures (i.e. same as in Experiment 1), except for the measure of the interviewer behavior appropriateness. For this variable, participants rated their agreement (*1 = Strongly Disagree, 7 = Strongly Agree*) with the following statement: 'The interviewer (i.e. Cst. Baldwin) acted in an appropriate manner'. All other materials and the procedure remained identical to Experiment 1. The correlation between ratings of credibility and suspect innocence was $r = .63$. The correlation between ratings of interview quality and credibility was $r = -.04$. The correlation between ratings of appropriateness and credibility was $r = -.06$. The correlation between ratings of suspect innocence and interview quality was $r = -.07$, and the correlation between suspect innocence and appropriateness was $r = -.02$. The correlation between interview quality and appropriateness was $r = .53$.

Results and discussion

Mean difference scores for witness credibility, suspect innocence, interview quality, and interviewer behavior appropriateness, as a function of account change and interview strategy, is shown in Table 1. Overall effect sizes for the impact of account change and interview strategy on the mean difference scores, and associated 95% confidence intervals, are also contained in Table 1 and Table 2. The effect sizes between the change and no change conditions breakdown by each interview strategy, and associated 95% confidence intervals, are contained in Table 3.

Table 1. Mean ratings of perceived witness credibility, suspect innocence, interview quality, and interviewer behavior appropriateness, as a function of account change and interview strategy, in Experiment 2.

Study Variables		Credibility		Suspect Innocence		Interview Quality		Appropriateness	
		M	*SD*	*M*	*SD*	*M*	*SD*	*M*	*SD*
Account Change									
	Change ($n = 171$)	−0.94	1.43	−1.54	1.52	−0.12	1.35	−0.47	1.61
	No Change ($n = 173$)	0.03	0.86	0.06	1.15	−0.26	1.13	−0.38	1.57
	d (Change vs No Change) 95% CI	−0.82 [−1.04, −0.60]		−1.19 [−1.42, −0.60]		0.11 [−0.10, 0.32]		−0.06 [−0.27, 0.15]	
Interview Strategy									
	Threat (T; $n = 86$)	−0.52	1.31	−0.72	1.66	−0.05	1.12	−0.42	1.33
	Major Threat (MT; $n = 87$)	−0.67	1.35	−0.71	1.63	−0.44	1.30	−1.00	1.95
	Memory (M; $n = 82$)	−0.09	0.96	−0.77	1.44	−0.04	1.37	−0.33	1.36
	Control (C; $n = 89$)	−0.51	1.36	−0.73	1.55	−0.24	1.15	0.04	1.45

Note. T = threat condition; MT = major threat condition; M = memory condition; C = control condition.

Credibility

Mean difference score for the omnibus measure of witness credibility, and associated 95% confidence intervals, as a function of account change and interview strategy, are shown in Figure 2. Participants in the account change conditions ($M = -0.94$, $SD = 1.43$) altered their credibility ratings more than those in the no change conditions ($M = 0.03$, $SD = 0.86$), and the effect size was large, $d = -0.82$, *95% CI* [−1.04, − 0.60]. Specifically, compared to no change, account changes preceded by explicit and implicit threats (i.e. major threat and threat conditions) led to a reduction of credibility ratings of the alibi witness, with large effect sizes ($ds = -1.24$ and − 0.95, respectively). As well, an account change following no interview strategy (i.e. control condition) resulted in a reduction in credibility ratings of the alibi witness, with a large effect ($d = -0.86$). However, the effect size for the impact of an account change preceded by an explanation about memory fallibility was small ($d = -0.23$) and the true direction of the effect is ambiguous given its 95% *CI* [−0.66, 0.20]. Regardless of account change, only small to negligible effects were found

Table 2. Effect sizes and associated 95% confidence intervals for the differences between Interview Strategies in Experiment 2.

Interview Strategies	Credibility		Suspect Innocence		Interview Quality		Appropriateness	
	Cohen's d	95% CI	Cohen's d	95% CI	Cohen's d	95% CI	Cohen's d	95% CI
Threat & Major Threat	0.12	[−0.19, 0.41]	−0.01	[−0.30, 0.29]	0.32	[0.02, 0.62]	0.35	[0.05, 0.65]
Threat & Memory	−0.37	[−0.68, −0.06]	0.03	[−0.27, 0.34]	−0.01	[−0.31, 0.29]	−0.07	[−0.37, 0.24]
Threat & Control	−0.01	[−0.31, 0.30]	0.01	[−0.29, 0.30]	0.17	[−0.13, 0.46]	−0.33	[−0.63, −0.03]
Major Threat & Memory	−0.49	[−0.80, −0.18]	0.04	[−0.26, 0.34]	−0.30	[−0.60, 0.04]	−0.40	[−0.70, −0.09]
Major Threat & Control	−0.12	[−0.41, 0.18]	0.01	[−0.28, 0.30]	−0.16	[−0.46, 0.13]	−0.61	[−0.91, −0.30]
Memory & Control	0.35	[0.05, 0.66]	−0.03	[−0.33, 0.27]	0.16	[−0.14, 0.46]	−0.26	[−0.56, 0.04]

Table 3. Effect sizes and associated 95% confidence intervals for the differences between change and no change conditions by interview strategy in Experiment 2.

	Credibility		Suspect Innocence		Interview Quality		Appropriateness	
	Cohen's *d*	95% *CI*	Cohen's d	95% *CI*	Cohen's d	95% *CI*	Cohen's *d*	95% *CI*
Threat	−0.95	[−1.39, −0.50]	−1.11	[−1.55, −0.64]	0.38	[−0.05, 0.80]	0.02	[−0.40, 0.44]
Major Threat	−1.24	[−1.69, −0.77]	−1.37	[−1.83, −0.89]	0.29	[−0.13, 0.72]	−0.12	[−0.54, 0.30]
Memory	−0.23	[−0.66, 0.20]	−0.98	[−1.43, −0.51]	−0.12	[−0.55, 0.31]	−0.14	[−0.57, 0.31]
Control	−0.86	[−1.29, −0.42]	−1.26	[−1.70, −0.79]	−0.10	[−0.52, 0.31]	0.00	[−0.41,0.42]

among various interview strategy conditions (see Table 2). Difference scores in the memory conditions were larger than those in control conditions ($d = 0.35$), while difference scores in the threat conditions and the major threat conditions were comparable to those in the control conditions ($ds = -0.01, -0.12$). A two-way ANOVA revealed that there was a significant effect of account change on the perceived witness credibility, $F(1, 336) = 61.33$, $p < .001$. There was also a significant effect of interview strategy, $F(3, 336) = 4.26$, $p = .01$, and a significant interaction between account and interview strategy, $F(3, 336) = 4.26$, $p = .006$. These results suggest that participants seemed to distrust the alibi witness more in general if they changed how certain they are about their account, and were even more distrustful if the account change was preceded by explicit or implicit

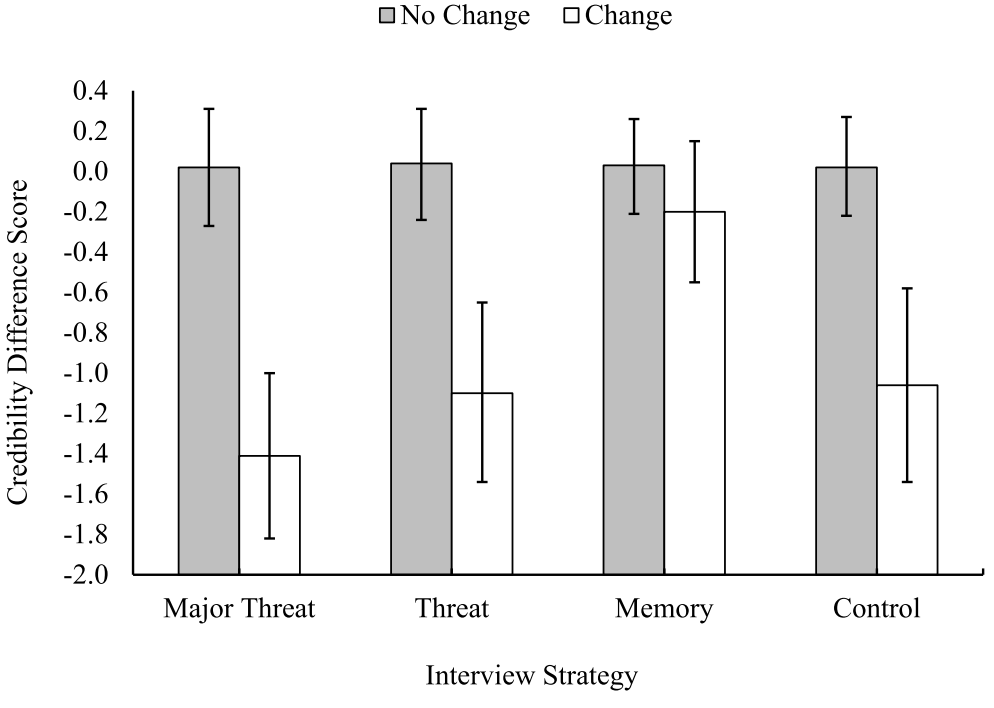

Figure 2. Credibility Difference Score as a Function of Account Change and Interview Strategy in Experiment 2.

threats. But an account change following an explanation of memory fallibility seemed to create less distrust compared to an account change preceded by threats or no interview strategy.

Suspect innocence

The mean difference scores of suspect innocence for the account change conditions ($M = -1.54$, $SD = 1.52$) was larger than those in the no change conditions ($M = 0.06$, $SD = 1.15$), and the effect size was large, $d = -1.19$, 95% *CI* [−1.42, – 0.60]. The effect sizes for the impact of account change on the difference scores by each interview strategy condition were large ($ds = -1.37$ – – 0.98, see Table 3), while the overall impacts of interview strategy were negligible ($ds = -0.01$–0.04, see Table 2). A two-way ANOVA showed that there was a main effect of account change, $F(1, 336) = 118.77$, $p < .001$. Interview strategy did not have a statistically significant impact on perceptions of suspect innocence, $F(3, 335) = .00$, $p = 1.00$. The interaction effect did not achieve statistical significance, $F(3, 336) = 0.63$, $p = .60$. Consistent with Experiment 1, these data suggest that participants tended to penalize the suspect more when the alibi witness changed their account (i.e. the support for the suspect's account waned).

Interview quality

The mean interview quality difference scores were smaller for participants in the account change conditions ($M = -0.12$, $SD = 1.35$) than those in the no change conditions ($M = -0.26$, $SD = 1.13$), but the effect size was small, $d = 0.11$, 95% *CI* [−0.10, 0.32]. Overall, the differences in the difference scores for the interview strategy conditions were small to negligible ($ds = -0.01$–0.32, see Table 2). A small effect was observed when there was a change in account (versus no account change) for the threat ($d = 0.29$) and major threat ($d = 0.38$) conditions, but it the true direction of the effect is inconclusive given that their 95% confidence intervals contained 0 (see Table 3). A two-way ANOVA revealed that there was no significant effect of account change, $F(1, 336) = 0.94$, $p = .33$ or of interview strategy, $F(3, 336) = 2.00$, $p = .12$. There was also no interaction between account change and interview strategy, $F(3, 336) = 1.39$, $p = .25$. These data suggest that account change and interview strategy do not have a much of an impact on lay perceptions of interview quality. Like past findings, any concerns participants may have about persuasive interviewing practices were not reflected in their ratings of interview quality.

Appropriateness

On average, the difference scores for appropriateness ratings in the account change conditions ($M = -0.47$, $SD = 1.61$) were comparable to those in the no change conditions ($M = -0.38$, $SD = 1.57$), and the effect size was negligible, $d = -0.06$, 95% *CI* [−0.27, 0.15]. The effect sizes for the impact of account change breakdown by interview strategies were also negligible ($ds = -0.14$–0.02, see Table 3). However, as for the interview strategy only, the interviewer's behavior was viewed as less appropriate when explicit and implicit threats were used (i.e. major threat and threat) than when no tactic was used (i.e. control), with moderate to small effect sizes ($ds = -0.61$, – 0.33). Participants in the memory conditions also perceived the interviewer as less appropriate than those in the control conditions, but the effect size was small ($d = -0.26$). A two-way ANOVA revealed that there was no significant effect of account change, $F(1, 336) = 0.34$, $p = .56$. There was a

significant effect of interview strategy, $F(3, 336) = 6.85$, $p < .001$, but there was no interaction between account change and interview strategy, $F(3, 336) = 0.15$, $p = .93$. These data suggest that lay perceptions of interviewer behavior appropriateness are influenced by the interview strategy employed rather than account change during an interview.

Experiment 3

The purpose of Experiment 3 was to conduct a conceptual replication of Experiment 2 using a different sample – that is, a test of the reliability of our findings. In this experiment, we collected data from a group of general population members using a research platform that is accessible to the public (i.e. Prolific).

Method

Participants

Participants ($N = 244$) were recruited from the general population through Prolific, an online survey platform. Twelve participants failed the attention checks, resulting in a final sample size of 232. A post-hoc power analysis conducted with G*Power revealed that our power was 0.90 to detect a medium effect ($d = 0.50$) for this design, obtained sample size, and an alpha value of .05. Prolific was created specifically for the scientific community (unlike other crowdsourcing platforms), provides similarly high-quality data to MTurk with even more naïve and diverse participants (Peer et al., 2017), allows for pre-screening of participants, and provides strict guidelines to both participants and researchers regarding compensation, rights, and obligations (for more information, see Palan & Schitter, 2018). Participants were compensated £1.85 for their time. Of the 232 participants who reported their age, the mean was 30.93 years ($SD = 10.34$, *Range* = 18-67). Of the 232 participants who reported their gender, approximately 52% ($n = 120$) identified as male, 47% ($n = 110$) as female, and 1% ($n = 2$) as other. Of the 232 participants who reported their ethnicity, approximately 53% ($n = 122$) self-identified as White/Caucasian, 21% ($n = 48$) as Chinese, 9% ($n = 21$) as South Asian/East Indian, and the remaining 17% ($n = 41$) identified as one of several other ethnicities.

Design, materials, and procedure

A 4 (interview strategy: memory, threat, major threat, control) x 2 (account change: change vs. no change) between-subjects design was used. All materials used were identical to those used in Experiment 2. The procedure remained the same as Experiment 2 except for how participants were recruited for the study.

The correlation between ratings of credibility and suspect innocence was $r = .61$. The correlation between ratings of interview quality and credibility was $r = .07$. The correlation between ratings of appropriateness and credibility was $r = .04$. The correlation between ratings of suspect innocence and interview quality was $r = .03$, and the correlation between suspect innocence and appropriateness was $r = .00$. The correlation between interview quality and appropriateness was $r = .69$.

Results and discussion

Mean difference scores of perceived witness credibility, suspect innocence, interview quality, and interviewer behavior appropriateness, as a function of account change and interview strategy, is shown in Table 4. Overall effect sizes of account change and interview strategy, and associated 95% confidence intervals, are also shown in Table 4. The effect sizes of the differences in difference scores between the change and no change conditions breakdown by each interview strategy, and associated 95% confidence intervals, are shown in Table 5.

Credibility

Mean difference scores for ratings of witness credibility, and associated 95% confidence intervals, as a function of account change and interview strategy, are shown in Figure 3. Participants in the account change conditions ($M = -0.77$, $SD = 1.18$) tended to reduce their credibility ratings substantially more than those in the no change conditions ($M = -0.003$, $SD = 0.79$), and the effect size was large, $d = -0.77$, *95% CI* [−1.04, – 0.51]. Specifically, there were large negative effects of account change (vs no account

Table 4. Mean ratings of perceived witness credibility, suspect innocence, interview quality, and interviewer behavior appropriateness, as a function of account change and interview strategy, in Experiment 3.

Study Variables		Credibility		Suspect Innocence		Interview Quality		Appropriateness	
				M	SD	M	SD	M	SD
Account Change									
	Change ($n = 116$)	−0.77	1.18	−1.36	1.25	−0.41	1.48	−0.66	1.59
	No Change ($n = 116$)	−0.003	0.79	0.06	1.03	−0.23	1.25	−0.42	1.48
	d (Change vs No Change)	−0.77 [−1.04, – 0.51]		−1.24 [−1.52, – 0.96]		−0.13 [−0.39, 0.13]		−0.16 [−0.41, 0.10]	
Interview Strategy									
	Threat (T; $n = 61$)	−0.39	1.04	−0.74	1.18	−0.08	1.48	−0.26	1.82
	Major Threat (MT; $n = 56$)	−0.51	1.14	−0.66	1.46	−0.86	1.59	−1.25	1.87
	Memory (M; $n = 58$)	−0.09	0.85	−0.55	1.38	−0.36	1.31	−0.55	1.20
	Control (C; $n = 57$)	−0.56	1.21	−0.65	1.40	−0.02	0.86	−0.14	0.77
	d (T & MT) 95% CI	0.11 [−0.25, 0.47]		−0.06 [−0.42, 0.30]		0.51 [0.14, 0.88]		0.53 [0.17, 0.91]	
	d (T & M) 95% CI	−0.31 [−0.68, 0.05]		−0.15 [−0.51, 0.21]		0.20 [−0.16, 0.56]		0.19 [−0.17, 0.55]	
	d (T & C) 95% CI	0.15 [−0.21, 0.51]		−0.07 [−0.43, 0.29]		−0.05 [−0.41, 0.31]		−0.08 [−0.45, 0.28]	
	d (MT & M) 95% CI	−0.49 [−0.80, – 0.18]		−0.08 [−0.44, 0.29]		−0.34 [−0.71, 0.03]		−0.44 [−0.81, – 0.07]	
	d (MT & C) 95% CI	0.04 [−0.33, 0.41]		−0.01 [−0.38, 0.36]		−0.65 [−1.04, – 0.28]		−0.77 [−1.16, – 0.39]	
	d (M & C) 95% CI	0.45 [0.08, 0.82]		0.07 [−0.29, 0.44]		−0.30 [−0.67, 0.06]		−0.40 [−0.77, – 0.04]	

Note. T = threat condition; MT = major threat condition; M = memory condition; C = control condition.

Table 5. Effect sizes and associated 95% confidence intervals for the differences between change and no change conditions by interview strategy in Experiment 3.

	Credibility		Suspect Innocence		Interview Quality		Appropriateness	
	Cohen's *d*	95% *CI*	Cohen's *d*	95% *CI*	Cohen's *d*	95% *CI*	Cohen's *d*	95% *CI*
Threat	−0.95	[−1.48, −0.42]	−1.53	[−2.10, −0.96]	0.07	[−0.43, 0.57]	−0.17	[−0.68, 0.33]
Major Threat	−0.49	[−1.02, 0.05]	−0.80	[−1.35, −0.26]	−0.18	[−0.70, 0.35]	−0.19	[−0.71, 0.34]
Memory	−0.40	[−0.92, 0.12]	−1.21	[−1.77, −0.65]	−0.29	[−0.80, 0.23]	−0.11	[−0.63, 0.40]
Control	−1.21	[−1.78, −0.65]	−1.47	[−2.06, −0.89]	−0.20	[−0.72, 0.32]	0.19	[−0.71,0.33]

change) on ratings of witness credibility in the threat and control conditions (*ds* = −0.96, −1.21). However, the effect sizes of account change (vs no account change) in the memory and major threat conditions were small, and the true direction of the effect is uncertain given their confidence intervals (*ds* = −0.40, − 0.49; see Table 5). Difference scores for participants in memory conditions were greater than those in the control conditions (*d* = 0.45), while the overall impact of explicit and implicit threats (i.e. major threat and threat) were negligible compared to the control conditions (see Table 4). A two-way ANOVA revealed that there was a significant effect of account change on the perceived

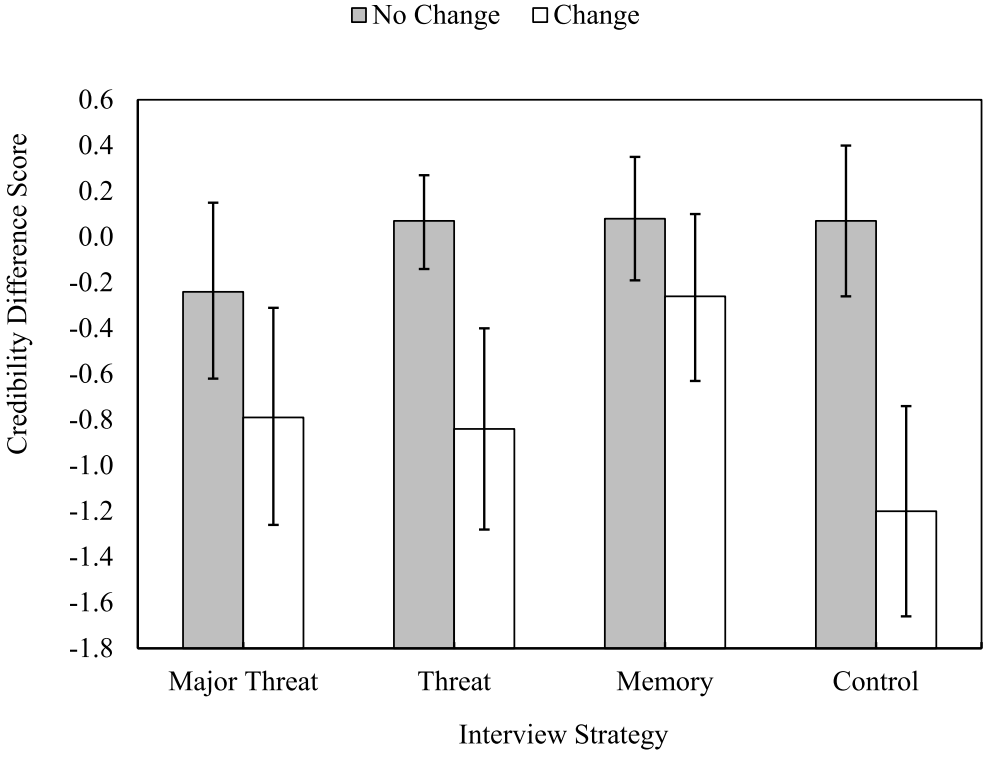

Figure 3. Credibility Difference Score as a Function of Account Change and Interview Strategy in Experiment 3.

witness credibility, $F(1, 224) = 35.15$, $p < .001$. There was also a significant effect of interview strategy, $F(3, 224) = 2.67$, $p = .05$, but there was no significant interaction between the two variables, $F(3, 224) = 2.46$, $p = .06$. In line with previous experiments, these data suggest that a change in an account during an interview will reduce lay perceptions of witness credibility and that this effect may be mitigated when an explanation on the frailty of memory is provided before the change.

Suspect innocence

Difference scores for ratings of witness credibility in the account change conditions ($M = -1.36$, $SD = 1.25$) were much greater than those in the no change conditions ($M = 0.06$, $SD = 1.03$), and the effect size was large, $d = -1.24$, *95%CI* [−1.52, – 0.96]. The effect sizes were also large for account change (vs no account change) in each of the interview strategy conditions ($ds = -1.53$ – – 0.80, see Table 4). However, the effect sizes for the difference in difference scores between the three interview strategy conditions and the control condition were negligible ($ds = -0.08$–0.07, see Table 3). A two-way ANOVA showed that there was a main effect of account change, $F(1, 224) = 87.74$, $p < .001$. Interview strategy did not have a statistically significant impact on perceptions of suspect innocence, $F(3, 224) = .23$, $p = .87$. The interaction effect did not achieve statistical significance, $F(3, 224) = .58$, $p = .63$. These data underline the idea that the suspect will be perceived as less innocent when there is a change in the witness account, regardless of the interview strategy used.

Interview quality

Difference scores for ratings of interview quality in the account change conditions ($M = -0.41$, $SD = 1.48$) were greater than those in the no change conditions ($M = -0.23$, $SD = 1.25$), but the effect size was small, $d = -0.13$, *95% CI* [−0.39, 0.13]. The effect sizes of account change (vs no account change) by interview strategy conditions were small to negligible ($ds = -0.29$–0.07, see Table 5). However, regardless of account change, the difference scores for participants in the major threat condition were, on average, larger than the difference scores for the control condition and the effect size was moderate ($d = -0.65$). The overall impacts of threat and memory compared to the control were negligible ($ds = -0.30$, – 0.05; see Table 4). A two-way ANOVA revealed that there was no significant effect of account change, $F(1, 224) = 1.10$, $p = .30$, but there was a significant effect of interview strategy, $F(3, 224) = 4.59$, $p = .004$. There was no interaction between account change and interview strategy, $F(3, 224) = 0.36$, $p = .78$. Consistent with previous literature, these data suggest that laypeople perceive potential downsides of an explicit threat used in an interview, while they do not hold the same views of more subtle interview strategies (e.g. implicit threats; Fallon & Snook, 2020).

Interviewer appropriateness

Difference scores in the account change conditions ($M = -0.66$, $SD = 1.59$) were a little larger than those in the no change conditions ($M = -0.42$, $SD = 1.48$), but the effect size was small, $d = -0.16$, *95% CI* [−0.41, 0.10]. The effect sizes for the impact of account change breakdown by interview strategy conditions were also small ($ds = -0.19$–0.19, see Table 5). Regardless of account change, however, difference scores in major threat conditions were larger than those in control conditions, and the effect size was large

($d = -0.77$). Relative to the control conditions, a small effect of the memory strategy was also observed ($d = -0.40$). A two-way ANOVA revealed that there was no significant effect of account change, $F(1, 224) = 1.49$, $p = .224$. There was a significant effect of interview strategy, $F(3, 224) = 6.26$, $p < .001$, while there was no interaction between account change and interview strategy, $F(3, 224) = 0.08$, $p = .97$. In short, the interviewer's behavior was perceived as less appropriate in major threat and memory conditions than in the control and threat conditions.

General results: mini meta-analysis

We meta-analyzed the three experiments using the standardized mean difference as the outcome measure to ascertain the overall impact of account change on lay perceptions of an alibi witness (see Goh et al., 2016 on the benefits of mini meta-analysis). Given that perceptions of alibi witness credibility and suspect innocence were highly correlated, these two measures were chosen to be the dependent measure representing lay perceptions of the alibi witness across the three studies. A random-effects model was fitted to the data since the assumptions of the fixed-effect model (i.e. the homogeneity among all studies) might be unrealistic in real-world applications. The analysis was carried out using R (version 4.1.1; R Core Team, 2020) and the *metafor* package (version 3.0.2; Viechtbauer, 2010).

Given that account change was manipulated in response to different interviewer tactics, a total of $k = 38$ effects derived between a comparison of change and no-change conditions across interview strategies were included in the analysis. A forest plot showing the observed outcomes and the estimate based on the random-effects model is shown in Figure 4. The estimated average standardized mean difference was −0.55, 95% CI [−0.73, −0.36], and differed significantly from zero ($z = -5.85$, $p < .001$), which confirms that account change can negatively affect lay perceptions of an alibi witness. Nevertheless, the true outcomes appear to be heterogeneous, $Q(37) = 209.51$, $p < .001$ (Cochran, 1954), and there is clear evidence that more than 80% of the dispersion would reflect variation in true effects when there is no sampling error ($I^2 = 82.52\%$; Higgins & Thompson, 2002). The amount of heterogeneity was estimated using the restricted maximum-likelihood estimator ($\tau^2 = 0.28$; Viechtbauer, 2005). A 95% prediction interval for the true effects is also given by −1.60–0.50, indicating that account change may not always have an impact if we were asked to predict it for any population.

However, as seen in the forest plot, some comparisons between account change and no change yield higher effects than others. There are also some cases where a considerable negative impact of account change was found. We therefore conducted subgroup analyses (i.e. moderator analyses) to identify why such specific heterogeneity patterns can be found in our data (Harrer et al., 2021). Specifically, the interview strategies and dependent measures were examined to determine if they moderate the overall impact of account change. The observed outcomes and the estimates of interview strategy subgroups are also displayed in Figure 4, while those of the dependent measures are displayed in Figure 5. The predicted estimates of subgroup analyses are shown in Table 6. For interview strategy, the aggregate results across three experiments revealed that the effects of account change in threat conditions ($M_d = -0.64$, $z = -3.58$, $p < .01$) and control conditions ($M_d = -0.65$, $z = -3.06$, $p < .01$) were larger than those in memory conditions ($M_d = -0.42$, $z = -2.36$, $p = .02$). The effects of account change in major threat

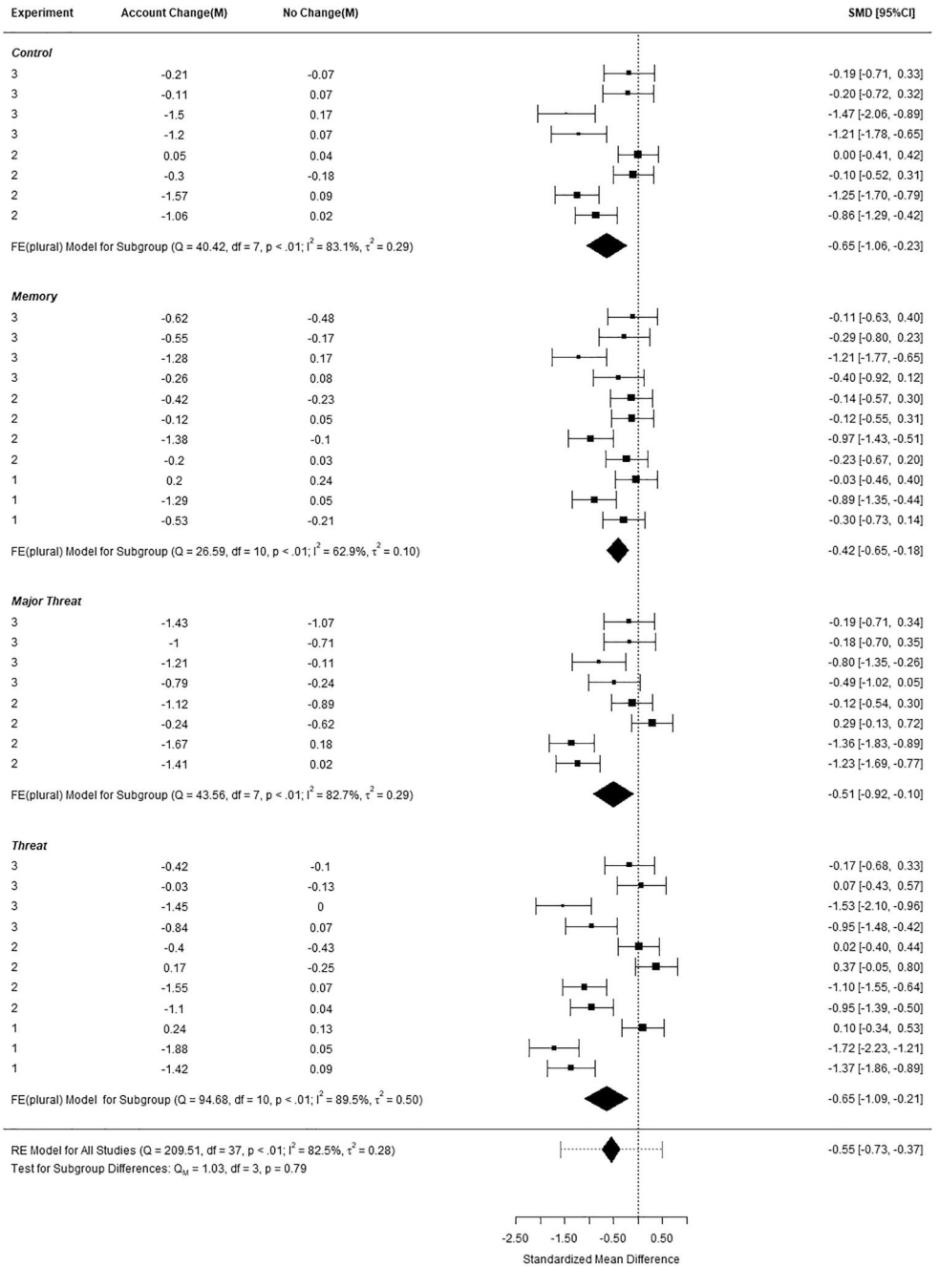

Figure 4. Forest Plot for Overall Effects of Account Change and Subgroup (Interview Strategy) Effects of Account Change on Lay Perceptions of the Alibi Interview.

conditions ($M_d = -0.51$, $z = -2.39$, $p = .02$) were also higher than those in memory conditions but less than the threat and control conditions. For dependent measures, the aggregate effects of account change on credibility and suspect innocence were large (M_ds = −0.79,

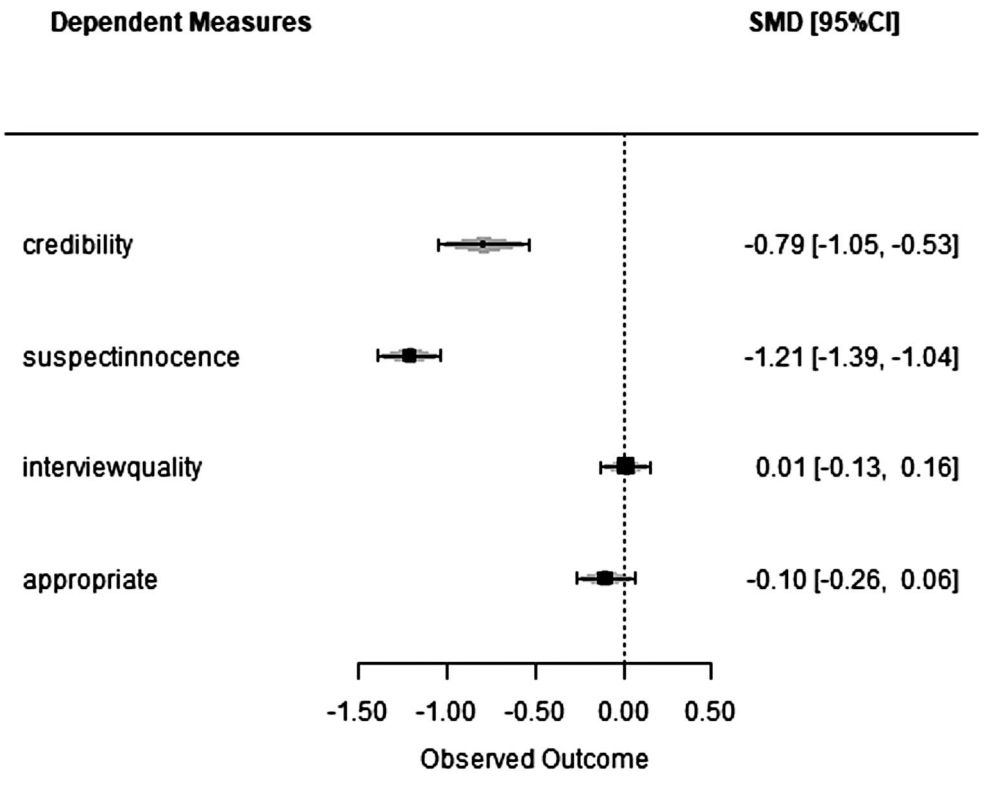

Figure 5. Subgroup Effects of Account Change (Dependent Measures).

Table 6. Predicted Estimates with Interview Strategy or Dependent Measures as Moderator.

Study Variable		Estimate	SE	95% *CI*
Interview Strategy				
	Control	−0.65	0.21	[−1.06, – 0.23]
	Memory	−0.42	0.18	[−0.77, – 0.07]
	Major Threat	−0.51	0.21	[−0.92, – 0.09]
	Threat	−0.64	0.18	[−1.00, – 0.29]
Dependent Measures				
	Credibility	−0.79	0.09	[−0.96, – 0.61]
	Suspect Innocence	−1.22	0.09	[−1.40, – 1.03]
	Interview Quality	0.01	0.09	[−0.17, 0.18]
	Appropriateness	−0.10	0.10	[−0.30, 0.09]

– 1.21), while those on the interview quality and interviewer appropriateness were negligible (M_ds = 0.01, – 0.10). These findings reinforced conclusions drawn from Experiments 1–3 that there were negative effects of account change, which differed by interview strategy, on perceived alibi witness credibility and suspect innocence.

General discussion

Across three experiments, we found that irrespective of the use of persuasive tactics, changes in an alibi witness' statement as the interview progressed lead to a reduction

in beliefs in the innocence of the suspect and perceptions of the witness' credibility but had little impact on views about the quality of the interview or appropriateness of the interviewer's behavior. We also found that the effect of an account change varied slightly as a function of the interview strategy that preceded that change.

We found that an account change during an interview had a large effect on how participants rated the credibility of the witness, and an even larger effect on ratings of suspect innocence. Such findings are consistent with previous alibi research showing that a change in a witness account causes people to view those witnesses as less credible (e.g. Culhane & Hosch, 2012), and with social psychological findings that people prefer consistency in others and view those who present a consistent message as more persuasive (e.g. Johnson-Laird, 2012; Moscovici et al., 1969). One possible explanation is that account change caused a gap in people's understanding of the event and increased uncertainty about the alibi and what to believe (Lewandowsky et al., 2012). We suspect that the change in the certainty of the account (i.e. inconsistency in human behavior) caused participants to also become uncertain about the account itself, as well as uncertain about the witness' goals, intentions, motives, and dispositions. People generally dislike uncertainty because it hinders humans from meeting desires to control and predict their environment (Frewer et al., 2003). The lack of information clarity likely made it difficult for participants to make decisions based on the alibi evidence. The uncertainty, in turn, may have led to collateral damage with respect to the lowering of participants' perceptions of suspect innocence. As such, a change in the alibi witness' account appears to have led to distrust and the formation of less favorable attitudes towards the witness and the suspect.

We also found that the effect of an account change varied as a function of the interview strategy that preceded the account change. It seems that type of explanation for the inconsistency slightly altered the degree of uncertainty faced by the participants. For instance, there was an unanticipated moderate effect of account change when the change occurred spontaneously (i.e. control group, $d = -0.65$). It appears that participants faced the most uncertainty when there was no explanation for the inconsistency, perhaps because such a change was viewed as highly illogical. Interestingly, an identical sized effect was found for the implicit threat conditions (i.e. threat, $d = -0.65$), which suggests that participants in this condition did not perceive implied maximization tactics as a more logical reason for the inconsistency than the baseline (i.e. control group). This finding is consistent with previous findings that lay people may not recognize subtle persuasion and its potential risk in eliciting false statements (e.g. Fallon & Snook, 2020; Kassin & McNall, 1991). In other words, participants may not have believed that the implied threat would lead the alibi witness to change his account and raised doubt due to the inexplicable nature of the change.

The effect size for the explicit threat conditions (i.e. major threat, $d = -0.51$) was also moderate and slightly lower than the baseline and threat conditions, thus suggesting that participants in this condition, on average, were more convinced the overt threat may have caused the inconsistency. The effect size for the memory conditions was the smallest across all interview strategy conditions ($d = -0.42$), which suggests that the explanation about the fallible nature of memory appears to be the most plausible reason for the inconsistency. That is, participants might have reasoned that the description of how memory works persuaded the witness to rethink his statement, which better

fills in the coherence gap to justify the alibi change; however, it did not completely reduce the negative impact of inconsistency in the alibi witness' behavior. For instance, one participant indicated that 'It seems Brian was less sure of himself after being told how memory may not always be accurate. However, I still believe Brian is telling the truth to the best of his knowledge'. It is also possible that participants did not realize the memory explanation was used by the interviewer as a persuasive tactic and they simply used this piece of information to comprehend the inconsistency. Either way, participants in the memory condition appear to have achieved the greatest degree of certainty about the account change.

While the inconsistency between the witness statements planted doubts, what is concerning is that the perceptions of the suspect were impacted negatively more than the witness. As aforementioned, the effect of account change on suspect innocence ($d = -1.21$) was larger than that on witness credibility ($d = -0.79$). It is likely that the suspect was not only penalized by the uncertainty regarding the evidence and the witness but also by the retraction of the alibi evidence. In other words, when the witness changed his account, participants might have accepted both the initial statement (i.e. the witness was certain that he was inside with the suspect at the time of the shooting) and the changed statement (i.e. the witness was no longer certain that he was with the suspect) and became unsure what to believe. Some research suggests that a temporary acceptance of information as true serves as a tacit norm of everyday conversational conduct: message receivers by default proceed with a conversation on the assumption that the source tries to be truthful and clear (Gilbert, 1991; Grice, 1975; Schwarz, 1994, 1996). This truth bias might make participants perceive a dramatic weakening of the evidence for the suspect, which took a toll on perceptions of the suspect's innocence.

Limitations and future directions

Although the memory explanation was not intended to be used as an interview tactic (but as an honest, open conversation with the witness about memory processes), the open-ended responses revealed that some participants viewed the memory explanation as a persuasive strategy. For example, one participant noted 'By telling the witness that memory is a fickle thing etc., he (the interviewer) definitely did taint the answer about what happened'. Given that we did not expect an explanation of memory to be viewed as explicit persuasion, this manipulation was not fully perceived as intended. While we proposed that participants might view it as a plausible explanation to fill in the logic gap left by account change, future studies may want to examine how they perceive the memory manipulation as plausible or pre-test the explanation to ensure it is having the intended effect. For example, is it because they think it forces the witness to change the account or it simply persuades the witness to think again about the account cautiously?

The current study also manipulated the account change variable only in the direction of weakening the suspect's alibi. That is, the alibi witness changed his statement from certain to not certain that he was inside with the suspect when the crime occurred. Although we found that account change could negatively affect the perceptions of witnesses and suspects in general, our research did not examine the effect that the direction of change would have on judgements. Future research should examine what would

happen if a witness account changed from against a suspect to supporting evidence. It might be rare for the police to threaten a witness to change in this direction (i.e. strengthening of the alibi), but such changes can happen in scenarios where no strategy or memory explanation is used. Future research should compare different directions of change to determine whether the strength of the evidence or the inconsistency within the accounts has more impact to lay perceptions of suspect innocence.

Moreover, it is important for future research to explore various aspects of account change, such as confidence in change and different levels of change (e.g. partial change vs. complete recantation). It is worth noting that the source who changed the account also matters. The alibi witness in our study was set up as an acquaintance of the suspect. Future research could manipulate the relations the alibi witness has with the suspect and see if different roles of the alibi witness (e.g. friend, family member, stranger) would moderate the effect of account change on lay perceptions of witness and suspect.

While we attempted to make the materials as immersive and valid as possible (e.g. real-world case, audio-taped interview), the studies remain artificial in many ways. For example, participants completed the study online, were only presented with a basic overview of the overall case details, and made their decision individually as opposed to group deliberations. The lack of realism remains a concern with most experimental research on applied questions, and we therefore interpret the real-world applicability of our results with caution and encourage further replication with more ecologically valid methodologies.

Conclusion

As has been evidenced by recent criminal cases in the media (e.g. CBC, 2014; R. v. Morgan, 2013), psychologically persuasive police interview tactics are no longer exclusively used with suspects. Given the documented use of these tactics against witnesses, it is imperative that research is conducted to learn more about the impact and perceptions of such tactics on witness accounts. The current research demonstrated that laypeople are distrustful when witnesses change their accounts, and that the presence of a persuasive strategy (e.g. threat) does not mitigate this attitude change. These findings suggest that it is critical to learn more about changes in the account and the impact of persuasive interview tactics on crime witnesses so we can take any necessary action to prevent witness-driven miscarriages of justice in the future.

Open Scholarship

This article has earned the Center for Open Science badges for Open Data and Open Materials through Open Practices Disclosure. The data and materials are openly accessible at and .

Data availability statement

The data that support the findings of this study are openly available in OSF at https://osf.io/smxy7/.

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