4-30-2017

Please Ignore Those Gestures: Does Warning Reduce the Gestural Misinformation Effect?

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Honors Thesis

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Abstract

The accuracy of eyewitness memory is influenced by the *verbal misinformation effect* and the *gestural misinformation effect*. Extensive research has documented effective safeguards to reduce eyewitness' susceptibility to verbal influences; however, safeguards protecting against nonverbal influences have received minimal attention. The goal of this study is to examine the effects of safeguards (i.e., warning about the misleading nature of nonverbal communication) in attempt to reduce the gestural misinformation effect. Sixty-six participants were recruited to watch a staged crime video and answer critical questions about the crime video. A 3(gestures: no, misleading, factual) x 2(warning: yes, no) between-subjects factorial design was conducted. The overall accuracy of participants' answers served as the dependent variable. A two-way factorial ANOVA was used to examine if warning participants about gestures made them less susceptible to their influence. No significant main effect of warning or gesture type was found and no significant interaction was observed. Results do show a pattern consistent with the hypothesis, such that participants who received misleading gestures and warning performed better than those who did not receive warning. However, more power is needed. Future research directions are discussed.

Acknowledgements

First and foremost, the author would like to extend their gratitude and thanks to Marcie Penner-Wilger and Laura Melnyk of King's University College of Western University, and Daniel Gurney of the University of Hertfordshire, for their continued support and exceptional guidance in the completion of this research. The author would also like to acknowledge and extend their gratitude to Andrew Salisbury, Matt Crocker, Lindsay Dickson, Bryan Wilger, Spencer Haynes, and Matt Simmons for their assistance in the creation of the stimuli and data collection.

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Despite being the largest contributing factor to the conviction of innocent people (Wise, Sartori, Magnussen, & Safer, 2014), eyewitness testimony is recognized as one of the most important forms of evidence in a criminal case. The criminal justice system places a great amount of confidence in eyewitness memory, regardless of the large number of documented errors (Wells & Olson, 2003; Wise et al., 2014). For instance, about 75% of the 312 DNA exonerated cases in the U.S. involved eyewitness error (Innocence Project, n.d.). Human memory is malleable, reconstructive, and unreliable, such that an original memory for a witnessed event can be significantly influenced and altered when exposed to post-event information and suggestive influences (Greene & Loftus, 1984). Given that eyewitness evidence is incredibly crucial in criminal cases, yet prone to many errors, it is imperative to investigate contributing factors that lead to inaccurate testimonies, and examine ways to reduce the errors, ultimately reducing wrongful convictions.

The persuasive forces that strongly impact eyewitness memory are known throughout the eyewitness literature as verbal and nonverbal influences (i.e., gestures), both of which often occur unintentionally (Loftus & Palmer, 1996; Gurney, 2015). Extensive research has demonstrated the strong effect of verbal communication on eyewitness memory (Gurney, 2015; Loftus, 1975; Loftus & Palmer, 1974). The ability to reshape one's memory for an event, or introduce new misleading information, through the use of verbal communication, is known as the v*erbal misinformation effect* (Loftus & Hoffman, 1989). Verbal influences present themselves as closed-ended questions and leading questions. Closed-ended questions limit eyewitnesses to respond in a yes/no fashion rather than allowing them to report what they remember from the

witnessed event in an open manner. Similarly, leading questions contain presuppositions that are either factual or misleading (portraying information that exists or does not exist in the witnessed event, respectively) (Loftus, 1975). In their now classic study, Loftus and Palmer (1974), had participants watch a video of a car accident and asked them to estimate how fast the cars were going upon contact. The experimenters had manipulated a single verb in the question, such that some participants were asked "How fast were the cars going when they *hit* each other?", whereas others were asked "How fast were the cars going when they *smashed* into each other?". The manipulation of a single verb led participants to report different speeds, such that those who heard *smashed* reported a faster speed estimation than those who heard *hit* (41mph and 34mph, respectively). Additionally, participants in the *smashed* condition were more likely to report seeing broken glass in the crime video when in fact, no broken glass was visible (Loftus & Palmer, 1974). This exemplifies the v*erbal misinformation effect* and illustrates how the manipulation of a single verb in the wording of a question can modify and impact one's memory for an event. Importantly, it also demonstrates how verbal communication can subtly introduce new information to an eyewitness, skewing their memory while leading them to inaccurately recall details of a witnessed event.

The accuracy of an eyewitness's testimony can be affected by the type of question asked during an investigative interview. When eyewitnesses are presented with closed-ended questions, such as "Did the suspect have a gun?" or "Did the suspect have a knife?", individuals are more likely to accept the information presented in the question (gun and knife, in this case) (Gurney, 2015; Gurney, Ellis, & Vardon-Hynard, 2016; Loftus, 1975). As such, they are increasingly likely to report seeing the respective information in the witnessed event, whether it is factual or

misleading. For example, when presented with a question that portrays accurate information (e.g., the suspect wielded a knife), eyewitnesses will accept the information and answer accordingly, giving a correct response (identifying that the suspect had a knife). When presented with a question that portrays misleading information (e.g., the suspect had a gun), eyewitnesses are just as likely to accept the misinformation, leading them to report an inaccurate response (identifying that the suspect had a gun) (Gurney, 2015). As stated previously, memory is reconstructive and post-event information can change an individual's memory of a crime and of a perpetrator. Questions conveying misleading information can lead individuals into giving an incorrect answer consistent with the information in the leading question.

Given the strong effects of the v*erbal misinformation effect* and its ability to inhibit the accuracy of eyewitness memory, many safeguards have been established to protect against these verbal persuasive forces, in an attempt to reduce their undesirable effects on memory. The unwanted effects of closed-ended questions have led to the practice of asking eyewitnesses open-ended questions, allowing them to freely recall a witnessed event. Further, in an attempt to induce resistance to misleading information, researchers have examined the effects of warning individuals about possible future misinformation prior to being asked questions about an event (Blank & Launay, 2014; Chambers & Zaragoza, 2001; Greene, Flynn, & Loftus, 1982). Research indicates that exposure to a warning about possibly receiving misinformation during the questioning period increased resistance to the misinformation (eyewitnesses were less likely to accept the misleading information), further reducing their susceptibility to verbal suggestive influences (Chambers, et al., 2001; Greene, et al., 1982).

Recently, nonverbal communication, such as gestural information, has gained attention in the eyewitness literature, with research demonstrating that nonverbal communication has a powerful influence in eyewitness interviews. Gestures are just as influential as verbal communication in altering a memory for an event (Broaders & Goldin-Meadow, 2010; Gurney, 2015; Gurney et al., 2016; Gurney, Pine, & Wiseman, 2013). Like verbal influences, gestures can reshape an individual's memory and introduce misleading post-event information, affecting the accuracy of the memory for the witnessed event. This *gestural misinformation effect* (Gurney et al., 2013) has been documented in both children (Broaders & Goldin-Meadow, 2010; Kirk, Gurney, Edwards, & Dodimead, 2015) and in adults (Gurney, 2015; Gurney et al., 2016; Gurney et al., 2013).

Individuals are more likely to remember parts of an exchange that are accompanied by gestures than those that are presented in speech alone, according to Kelly, Barr, Church, and Lynch (1999). In their research, participants were provided with the statement, "My brother went to the gym," accompanied by a "shooting a basketball" gesture. Not only did participants extract the critical "basketball" information portrayed through the gesture, they also remembered it as being part of the speech. Participants reported that they remembered the experimenter saying, "My brother went to the gym to play basketball" (Kelly et al., 1999). In a forensic setting, this becomes problematic as gestures can alter a memory, leading to inaccurate memories for witnessed events, ultimately leading to wrongful convictions. To control for the *verbal misinformation effect*, eyewitnesses are asked open-ended questions, such as "What did the suspect look like?" or "Did the suspect have a weapon? If so, what kind of weapon?". However, when an open-ended question is accompanied by a gesture (e.g., "What did the suspect look

like?" + *beard gesture*), it transforms the question into a closed-ended, leading question, conveying information the interviewer may not intend to express. The eyewitness incorporates the gesture as being part of the question, and instead of encoding the open-ended question into memory, they instead encode the question as "Did the suspect have a beard?" (Broaders & Goldin-Meadow, 2010). The transformation of an open-ended question into a leading question via nonverbal communication is concerning because, similarly to verbal communication, individuals are more likely to report the information that was portrayed through the gestures. Critically, not only are eyewitnesses susceptible to the influential powers of nonverbal communication, Gurney (2015) suggests that gestures often influence the accuracy of eyewitnesses' memories without even having a trace of doing so. Unlike verbal communication, where eyewitnesses are able to report feeling misled by speech, eyewitnesses are unlikely to recognize, distinguish, and report feeling missed by gestures (Gurney et al., 2016). Arguably, nonverbal communication poses as a greater threat to eyewitness testimonies than verbal communication since nonverbal communication often occurs outside of one's awareness, and is thereby harder to control. As such, the capacity of gestures to suggest misinformation (and to do so covertly), appears to make them ideal contenders for influence in eyewitness interviews. Since nonverbal communication has the strong ability to influence eyewitness reports, it is imperative to investigate whether any safeguards can be established in order to reduce the *gestural misinformation effect*. Whereas the *verbal misinformation effect* can be controlled for by advising forensic interviewers to ask open-ended questions, the *gestural misinformation effect* cannot be reduced that easily. It is not practical to simply advise forensic interviewers to discontinue the use of gestures, as gestures are ubiquitous and occur simultaneously with speech (McNeil, 1985).

Warning participants about the misleading information portrayed in questions has been shown to reduce the *verbal misinformation effect*; the warning has demonstrated to be more effective when presented to individuals in between witnessing an event and being interviewed (Greene, et al., 1982). However, safeguards reducing eyewitnesses' susceptibility to the *gestural misinformation effect* has received minimal attention. As demonstrated throughout the research, if an open-ended question is accompanied by gestures, it becomes transformed into a closed-ended question (Broaders & Goldin-Meadow, 2010). Eyewitnesses then incorporate the gestures into their memory as having been part of speech. Since gestures are just as influential as speech in altering a memory for an event, it appears that the next practical step is to examine whether the safeguards used to protect against verbal persuasive forces will also protect against nonverbal persuasive forces.

The goal of this research is to examine if warning individuals about the misleading nature of gestures will serve as an effective way to reduce the *gestural misinformation effect* by increasing the resistance of eyewitness suggestibility to gestural influences. It is hypothesized that participants who receive misleading gestures will perform worse when responding to the critical questions when compared to participants who are presented with factual gestures or no gestures at all. Additionally, it is also predicted that participants who are exposed to a warning, prior to being interviewed about a witnessed event, will be less susceptible to the gestural influences and perform better when answering critical questions than those who do not receive warning. It is further predicted that an interaction between gesture type and warning will be observed, such that individuals who are presented with misleading gestures and receive a warning will achieve a greater overall accuracy score than those presented with misleading

gestures without a warning. In this study, all participants watched a short crime video and answered eight critical questions regarding the witnessed event. The critical questions were accompanied by either misleading gestures, factual gestures, or no gestures (see Appendix A for complete script). Half of the participants received a warning, while the other half did not. The answers to the critical questions were examined and an overall accuracy rate was calculated, which served as the dependent variable.

Method

Participants

Participants were 66 undergraduate students (M_{age} = 18.4 years, age range: 17-24, 21 male) recruited from King's University College in London, Ontario, Canada. Participants signed up for the research study via SONA and were compensated with a bonus mark in their class for completing a relevant assignment. Participants were required to be fluent in the English language and were required to have normal or corrected-to-normal vision.

Materials

Staged crime video. A 30-second staged crime video was prepared as the stimulus. The video took place in a parking lot and showed two cars in close proximity, facing each other. The drivers of the cars exited their vehicles and started yelling at each other. One of the drivers (the victim) attempted to back away as if to surrender. The other driver (the culprit) continued to approach the victim. Once close enough, the culprit grabbed the victim by the shoulders and pushed him up against his car. The victim tried to fight off the culprit, resulting in a fist fight between the two, ending as the culprit knocked the victim down. The culprit then stole a cell

phone out of the victim's coat pocket. There were two individuals acting as bystanders. The video was filmed on a cell phone and did not include audio.

Distractor task. For the distractor task, participants completed the addition subtest of the Kit of Factor-Referenced Cognitive Tests (French, Ekstrom, & Price, 1963). Each subtest of this paper-and-pencil task consists of two pages of multi-digit arithmetic problems. Participants are given two minutes per page to solve as many questions as possible. The Kit took approximately five minutes to complete.

Verbal warning. A verbal warning was given to the participants in the *warning* conditions, prior to the interviewing process. The warning was administered in person by an experimenter other than the one in the interview videos. Warning verbatim: "The interviewer may be gesturing and some of the gestures may be misleading. Please do your best to respond with what you actually remember seeing in the crime video."

Interview videos. A total of eight questions were created, which will be referred to as the critical questions. An experimenter conducted the interview, asking the eight critical questions pertaining to the crime video (refer to Appendix A for interview script). The questions administered by the experimenter were filmed and shown to the participants (on an iPad) during the interviewing process. For the *no gesture* condition, the experimenter asked questions without gesturing, for example, "Did the suspect have any identifiable features?". For the *misleading gesture* condition, the experimenter asked questions while providing misleading gestures (gestures conveying information that did not correspond to the crime video), such as "Did the suspect have any identifiable features?" + BEARD GESTURE. For the *factual gesture* condition, the experimenter asked questions while providing a factual gesture (gestures conveying

information that corresponded to the crime video), such as, “Did the suspect have any identifiable features?” + GLASSES GESTURE. Each question in every condition was followed by a black screen with a white fixation cross, which allowed the participant to write their answer down before proceeding to the next question. Therefore, three interview videos were made specifically for the *no gesture*, *misleading gesture*, and *factual gesture* conditions. The same experimenter administered the same questions, in the exact same order, in each of the videos. A pilot test was conducted prior to the current experiment to confirm that the verbal and nonverbal aspects of the interview videos were balanced, such that the gestures did not stand out or appear to be obvious.

Pre-debrief questions. Before debriefing the participants, an experimenter administered final questions regarding the gestures. The questions asked participants if they had noticed any gestures and, if so, to state which ones. The experimenter also asked participants if they felt influenced by any of the gestures when giving their responses to the critical questions.

Procedure

The method used was adapted from Gurney, Pine, and Wiseman (2013). After providing consent, participants were individually tested in a single session lasting not more than 20 minutes. Experimenters displayed the staged crime video to participants via an iPad and instructed participants to “watch the video carefully as they will be asked to recall information pertaining to the crime at a later time.” Following the crime video, participants completed the addition subtest of the Kit of Factor-Referenced Cognitive Tests (French, Ekstrom, & Price, 1963). Upon completing the pen-and-paper task, participants were randomly assigned to one of the three investigative interview videos (*no gestures*, *misleading gestures*, or *factual gestures*) in

addition to being randomly assigned to receive warning or not. Researchers provided a warning to participants in the *warning* conditions prior to viewing the investigative interview video. All participants were told that they were going to be shown a video with a series of questions regarding the crime video they had previously viewed. Experimenters displayed one of the three interview videos (i.e., *no gestures*, *misleading gestures*, or *factual gestures*) to each of the participants. The researcher paused the video after each critical question (when the black screen with the white fixation cross was shown), allowing participants time to write their responses before progressing to the next question. Before starting the interview video, participants were told that this portion of the study was not timed and they were allowed to take as much time as needed to answer the questions. They were also informed that if they did not remember or know the answers to any of the questions, it was acceptable to write that down as a response. After completing the interview task, experimenters administered a pre-debrief, asking participants three questions regarding the interview video they saw: (1) "Did you notice the interviewer gesturing at all when asking you questions about the crime video?" (2) "If so, please list the gestures you remember seeing." (3)" Did you feel influenced by the gestures when giving your response to the questions during the interview video?" Participants were instructed to give written responses to the three pre-debrief questions. Participants were then debriefed and notified that the mathematical task was only used as a distractor task and as such, their score was irrelevant to the study and not examined, they were then thanked for their time.

Design

A 3(gestures: no, misleading, factual) x 2(warning: yes, no) between-subjects factorial design was employed using participants' overall accuracy to the eight critical questions as the

dependent variable. A two-way factorial ANOVA was used as the statistical analysis to examine whether warning participants about the misleading nature of gestures made them less susceptible to their influence. Responses to the critical questions were evaluated as "hits" or as "misses." A response was marked as a hit if the answer was correct, such that it corresponded to what happened in the crime video. In contrast, misses referred to an answer that was incorrect, such that it did not correspond to what happened in the crime video. It is predicted that participants will score more hits, characterized by a greater overall accuracy, when presented with the no gesture and the factual gesture interview videos, while those presented with the misleading gestures will score more misses and therefore have a lower overall accuracy. With regard to warning, it is predicted that participants who are warned about the misleading nature of gestures, prior to being interviewed about a witnessed event, will be less susceptible to the gestural influences and perform better when answering critical questions than those who do not receive warning. Lastly, it is hypothesized that an interaction between gesture type and warning will be observed, such that participants who are presented with misleading gestures and exposed to a warning will generate a greater accuracy score than those who received misleading gestures without a warning.

Results

Comparison between Gesture Type and Warning

Means and standard deviations can be found in Table 1. A 3x2 factorial ANOVA with gesture type (none, factual, misleading) and warning (no, yes) as between-subject factors was conducted with overall accuracy (%) to the eight critical questions as the dependent variable. As shown in Figure 1, no significant main effect of gesture type was observed, $F(2, 60) = 1.815$, $p =$

.172, partial η^2 = .057, power = .365. Shown in Figure 2, no significant main effect of warning was observed, $F(1, 60) = 0.017$, p = .897, partial η^2 = .000 , power = .052. Finally, depicted in Figure 3, no significant interaction between warning and gesture type was observed, $F(2, 60) = 1.287$, p = .284, partial η^2 = .041, power = .269.

Table 1

Means and Standard Deviations for Overall Accuracy Across All Conditions

	Warning		No Warning	
Gesture Type	*n*	*M* (SD)	*n*	*M* (SD)
None	8	67.19 (11.45)	11	64.77 (12.27)
Factual	10	66.25 (13.24)	11	73.86 (11.80)
Misleading	11	64.77 (13.48)	15	60.83 (14.07)

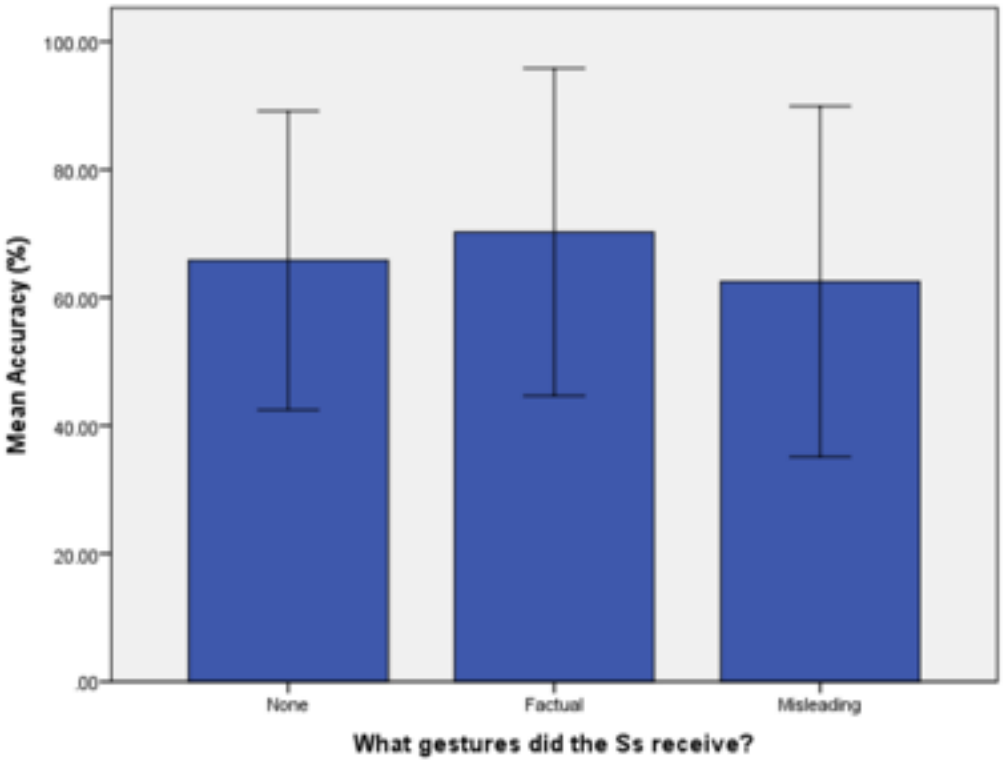

Figure 1. Mean accuracy on the critical questions as a function of gesture type. Error bars reflect the standard deviation.

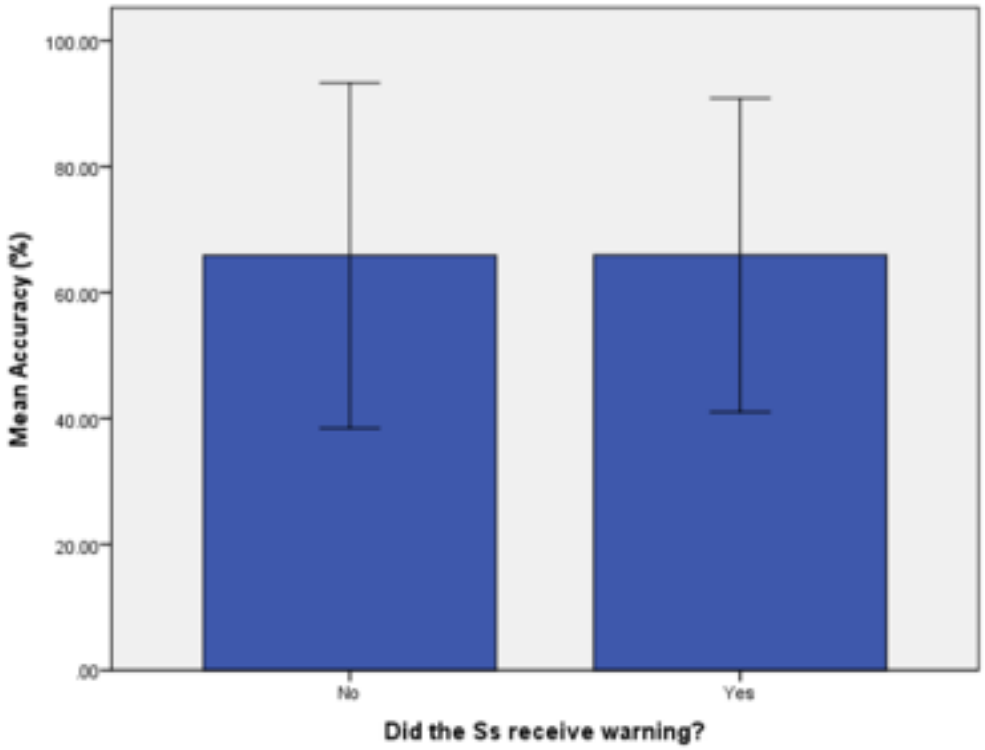

Figure 2. Mean accuracy on the critical questions as a function of warning. Error bars reflect the standard deviation.

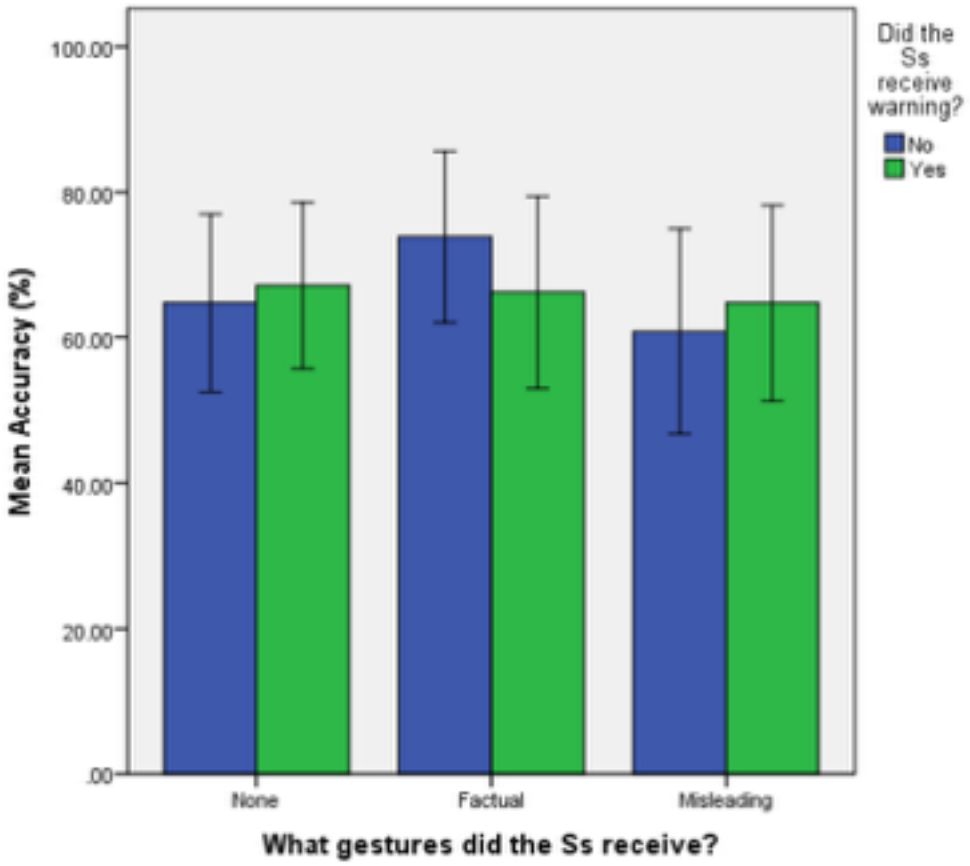

Figure 3. Mean accuracy on the critical questions as a function of gesture type and warning. Error bars reflect the standard deviation.

Discussion

In sum, results yielded no significant main effects of gesture type or warning, and no significant interaction between the two conditions. These data suggest that warning participants about the misleading nature of gestures did not make them significantly less susceptible to the nonverbal influences. Thus no evidence was found supporting that warning reduces the gestural misinformation effect.

On the subject of the effect of gesture type on participants' overall accuracy across the eight critical questions, there was no observed significant main effect. However, given the power, there was only a 36.5% chance of finding a main effect of gesture type, should one exist. This result does not support the first hypothesis, predicting a greater overall accuracy for participants who received no gestures and factual gestures compared to misleading gestures. Nonetheless, the means (depicted in *Figure 1*) do illustrate a pattern consistent with the first prediction, such that participants who received misleading gestures did perform worse than the *no gesture* and *factual gesture* conditions; although the differences were not statistically significant.

Pertaining to the effect of warning on participants' overall accuracy across the eight critical questions, results revealed no significant main effect. The observed power of the main effect of warning (5.2%) suggests that if participants' performance would have been effected by exposure to warning, the likelihood of detecting such effect was low. The findings did not support the second hypothesis, which predicted that participants who received a warning regarding the misleading nature of gestures would perform better. The data show that participants' overall accuracy was not effected by warning, and the means (depicted in *Figure 2*) illustrate that participants' performance was in fact similar across the warning conditions.

It was predicted that the results would yield a significant interaction between gesture type and warning, such that participants who received a warning prior to being exposed to misleading gestures would perform better than individuals who were exposed to misleading gestures without a warning. This would support the theory that safeguards, such as warnings, would reduce one's susceptibility to nonverbal communication. However, the data did not reveal a significant interaction between gesture type and warning. Again, the observed power was low, suggesting that there was only a 26.9% possibility of detecting a significant interaction between gesture type and warning, such that warning would reduce an individual's susceptibility to the misleading nature of gestures. Participants in the misleading gesture with warning condition did not significantly outperform participants who were exposed to misleading gestures without warning. Interestingly, results (depicted in *Figure 3*) characterized a pattern consistent with the hypothesis, such that those who received misleading gestures and a warning achieved a greater overall accuracy score than those presented with misleading gestures alone; however, the observed difference was not statistically significant. Alternatively, the lack of significant findings with regard to the interaction between gesture type and warning may speak to the influential power of nonverbal communication and their ability to reshape memory in a covert manner (Gurney et al., 2016).

Moreover, the means for the factual gesture conditions (depicted in *Figure 3*) revealed an unexpected outcome: participants who were given a warning before being presented with factual gestures ended up performing worse than those who were presented with factual gestures alone. Although this difference was not statistically significant, the pattern may speak to a potential limitation of warnings. This could signify that participants may second-guess themselves after

having been warned about the misleading nature of gestures, such that they notice the gestures during the investigative interview (in this case, factual) but are concerned that the nonverbal communication is conveying false information. As such, participants may avoid reporting the information portrayed through the factual gestures, even if they believe it to be correct, due to their concern that the gestures are misleading.

In sum, these findings did not support the three predicted hypotheses. Gesture type and warning did not have a significant effect on participants' overall accuracy across the eight critical questions. Further, results revealed no significant interaction between gesture type and warning. Taken together, these data illustrate that warning participants about the misleading nature of gestures did not make them significantly less susceptible to the influences of the nonverbal communication. Therefore, no evidence was found supporting that warning can reduce the gestural misinformation effect.

One limitation of the study was the lack of power, characterized by the small sample size. Although findings yielded no significant effects, results regarding the main effect of gesture type and the interaction between gesture type and warning do show a pattern consistent with the hypothesis, such that individuals presented with no gestures and factual gestures outperformed those presented with misleading gestures. Further, individuals who were exposed to misleading gestures and presented with a warning achieved a greater overall accuracy compared to participants who received misleading gestures alone. However, these differences were not statistically significant, illustrating that more power is needed. Should more participants had been recruited, the mean differences may have revealed significant effects, especially across the gesture conditions, which has already been demonstrated in previous research (Broaders et al.,

2010; Gurney, 2015; Gurney et al., 2016; Gurney, 2013; Kirk, 2015). A second limitation pertains to the internal and external validity trade-off. Participants in this study were aware that the experiment included watching a crime video and answering critical questions about the video; therefore, it is expected that participants would be attentive, focusing on specific details they might deem important for the critical questions. However, those who witness a crime first hand are not always aware that a crime is about to take place, so they may not be as attentive to specific details. Further, witnessing a crime first hand, in comparison to a laboratory setting, may actually be fear inducing; this fear may have different effects on how memory and specific details are later recalled. Furthermore, the time allotted between watching the crime video and being asked critical questions was only five minutes. This is not indicative of reality, such that eyewitnesses may not undergo an investigative interview right after having witnessed an event. Investigative interviews may take days, weeks, or sometimes even months. The greater difference in time between witnessing a crime and being interviewed, outside of the laboratory setting, may have greater implications on memory. The short amount of time allotted in the experiment does not accurately reflect what happens in real situations involving criminal events and eyewitnesses.

Although no significant results were found, this study serves as an excellent pilot study, allowing future research to examine these hypotheses further with a greater sample size. Ideally, future research should include a greater distance between witnessing a criminal event and experiencing the investigative interview in order to make it more generalizable to witnessing a criminal event outside of the laboratory setting.

Moreover, it might demonstrate to be beneficial for future research to examine a specific way of wording the warning. Although not statistically significant, the interaction effect for factual gestures and warning characterized a pattern such that participants exposed to factual gestures while being presented with a warning achieved a lower overall accuracy than participants who were exposed to factual gestures without a warning. This could be due to the way the warning was worded, thereby leaving participants feeling uncertain of their answers.

Nonetheless, this study is one of the first of its kind in the eyewitness literature to examine potential safeguards aimed at reducing the gestural misinformation effect by attempting to instil resistance to the powerful influences posed by nonverbal communication. The data revealed no significant findings; overall accuracy was not affected by gesture type, warning, or an interaction between gesture type and warning. Therefore, presenting participants with a warning regarding the misleading nature of gestures did not make them significantly less susceptible to the nonverbal influences. Thus, no evidence was found supporting that warning serves as a successful safeguard that reduces the gestural misinformation effect. However, it is encouraged that future research replicates this novel study with a larger sample size. If future research can find support for the hypotheses predicted here, practical implications can be sought. The findings can then be applied to the legal field, bringing about awareness to the influential power of nonverbal communication and the effects in can have on memory. Doing so may prove to be beneficial in the reduction of eyewitness error, ultimately reducing wrongful convictions.

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Appendix A

The following eight questions were used for all three of the investigative interview videos. Questions were asked in the same order by the same experimenter. The only difference was whether the interviewer did not gesture at all, gestured misleading information, or factual information. Gestures are represented in Italics with misleading gestures preceding factual gestures (*misleading* versus *factual*). Parentheses indicate when the experimenter gestured during the questions. For the control condition (no gestures), the experimenter proceeded through the questions in the same order without presenting any gestures.

1. "During the beginning of the video, two men got out of their cars and started arguing with each other. The suspect then [approached the victim] and grabbed him. Where, on the body, did the suspect grab the victim?" *Neck* versus *shoulders.*

2. "[Two cars] can be seen in the video. Was there any contact between the cars?" *Fists touching* versus *fists apart*.

3. "[How many bystanders] were there?" *Three fingers* versus *two fingers.*

4. "Did the suspect have any [identifiable features]? If so, what features did you notice?" *Beard gesture* versus *glasses gesture*.

5. "Did the suspect [have a weapon]? If so, what was the weapon?" *stabbing gesture* versus *open hands and shrug*.

6. "After a dispute, the suspect threw the victim on the ground [and attacked him]. Where, on the body, did the suspect attack the victim?" *punching head* versus *punching stomach*.

7. "[What item] did the suspect steal from the victim?" *headphone gesture* versus *phone gesture*.

8. "What was [the suspect wearing]?" *glove gesture* versus *coat gesture.*