On a busy street in the middle of the day, Scott W. was working as a construction worker when he noticed a man in his truck, starting to drive away. Scott ran up to the truck and tried to block his way, but the driver escaped with the vehicle and his property inside. Scott told the police that he got a very good look at the culprit and described him as a white male in his 30s with reddish facial hair. While Scott was completing his report to the responding officer, their conversation was interrupted by a radio dispatch announcing that the truck was recovered, a suspect was in custody, and they wanted the witness to come make an identification. Scott W. was then driven to the location where the suspect was detained, and upon arrival at the scene, he was given his keys and phone (which were found in the vehicle), and he could see the stolen truck parked nearby. One of the officers then read Scott the standard departmental pre-showup admonition, which instructed the witness not assume the person in custody was the actual culprit. The witness was then shown the suspect, Darwin Romero, who was handcuffed and in police custody. Surprisingly, Mr. Romero was not a white male in his 30s with reddish facial hair, but rather a Hispanic male with black hair and olive skin, who just happened to be in the park near the stolen vehicle. Despite the fact that the suspect differed so significantly from his initial description, Scott identified Romero as the thief. To sort out the obvious discrepancy between his initial description and the suspect’s appearance, Scott reasoned that he must have confused the blemishes on his pockmarked face for red facial hair.

At trial, the defense argued Scott W. likely decided Romero must have been the thief due to the circumstances of his detention (i.e., the appearance that he was found shortly after the crime with the truck and the property). To counter this argument, the prosecutor reasoned that reading the admonishment to the witness prior to the field identification procedure (i.e., the showup) should have provided a safeguard against the witness assuming that the police must have caught the actual thief (People vs. Darwin Romero, 2015, San Francisco County, 15022282).

The prosecutor’s argument in this case was certainly not without merit, as two different meta-analyses have shown that witnesses who are admonished prior to an identification test are less likely to falsely identify an innocent suspect (Clark, 2005; Steblay, 1997). However, in actual cases, it is not entirely clear how robust the protective effect of the admonition is, particularly with showups. The fluid and uncontrolled nature of the pursuit of a suspect in the field presents many opportunities for witnesses to be exposed to potentially suggestive information that can raise their expectation that police have caught the actual perpetrator. Moreover, recent research indicates that suggestions from the person administering an identification test that the actual culprit is likely present could dramatically limit the protective qualities of unbiased pre-identification instructions (Quinlivan et al., 2012). Quinlivan and her colleagues coined the term pre-admonition suggestion to describe this phenomenon.

Pre-admonition Suggestion

Quinlivan et al. (2012) proposed that suggestions made to a witness prior to being read unbiased pre-lineup instructions could mitigate the prophylactic effect of the admonition. The logic is straightforward: any suggestion made to a witness indicating that the actual culprit is present in an identification test runs directly counter to the gist of the admonition that he/she may or may not be there, and therefore increases the likelihood that a witness will make an identification, even if recognition is weak or absent. These investigators argued that unlike the perfunctory reading of pre-lineup instructions, suggestions made to witnesses prior to the admonition may be viewed as more personalized and relevant to the case at hand, thus increasing the effect of this information relative to the admonition. Quinlivan et al. (2012) tested this proposition by showing participants a video of a mock crime followed by the administration of a culprit-absent photo array, in which participants were offered a suggestion that the culprit would be present in the six-pack.
prior to being instructed in either a biased or unbiased manner. In this study, the pre-admonition suggestion came in the form of telling witnesses, ‘Surely you can pick the perpetrator.’ These investigators found that offering this suggestion, which directly inferred that the actual culprit was likely present in the six-pack, essentially mitigated the protective effect of the admonition, leading to increased choosing, and increased confidence in the selections made.

The current study was designed to build on the work carried out by Quinlivan and her colleagues by comparing participants who were exposed to the suggestion that the police believed they had caught the guy before being properly admonished, to those who were admonished without having heard this suggestion. Also, since these investigators only used a culprit-absent condition, they could not examine whether the pre-admonition suggestion would also have increased choosing when the actual culprit was present in the lineup and the suspect’s match to the witnesses’ memory was strong. Moreover, the pre-admonition suggestion used by these investigators was fairly direct, indicating that the task was easy and the culprit was likely there. The current study examined the effect of a more subtle form of indirect suggestion that we believe is more likely to occur in actual investigations (i.e., overhearing radio communications indicating that the police believed they had caught the actual culprit). In addition, this phenomenon was examined in showups conducted under highly realistic field conditions.

Showups in the Field
It can be argued that pre-admonition suggestion is an even greater concern in showups than lineups. With a fair lineup, if a witness does not recognize any of the suspects but concludes that the police must have the actual culprit and consequently decides to make a selection anyway, their errors should be evenly distributed across the lineup members. However, with a showup, because there is only one person being presented, the decision to choose will always result in the suspect being picked. Moreover, recent research indicates that showups conducted in the field may be even more suggestive than previously thought and that admonitions may have limited protective properties in field conditions (Eisen, Smith, Olaguez, & Skerritt-Perta, 2017).

Recently, Eisen et al. (2017) conducted three controlled experiments using a field-simulation paradigm to compare how witnesses performed at showups when they were led to believe the showup was part of an actual investigation, compared with conditions in which the participants were informed that the showup was being performed for research purposes. These investigators had participants witness a staged crime (the theft of a laptop computer) and were immersed in what they were led to believe was an actual police investigation that involved the pursuit and apprehension of a suspect. In the field-simulation condition, a uniformed officer responded to the crime scene, and the witnesses were escorted to a location where local law enforcement conducted a live showup with a suspect in custody. The lab condition was performed without police involvement, and participants were debriefed before the showup was conducted. Results of these experiments revealed that the field conditions induced a criterion shift, in which participants were more likely to make an identification (accurate or false) when they thought they were involved in an actual investigation, regardless of whether the culprit was present or not (Experiments 2 and 3).

To explain what was driving this criterion shift, these investigators argued that when showups are conducted by police in the field, witnesses are faced with a host of ‘hot’ affective components related to the unique situational factors involved in the event that can influence their decision making. Specifically, they argued that presenting a similarly dressed person in police custody, near the scene, soon after the crime, would prime witness expectations that the police have likely caught the culprit, which would in turn increase choosing.

Pressure to Choose
Eisen and his colleagues proposed that heightened expectations triggered by showups conducted in the field would result in witnesses feeling increased pressure to identify the suspect presented to them. Indeed, data pooled from over 800 participants across the three field-simulation experiments revealed that 46% of participants in the field condition reported feeling pressured to identify the suspect, compared with only 28% of participants in the lab condition, who knew the showup was being conducted solely for research purposes. Eisen and his colleagues postulated that this increased pressure to choose played a central role in driving participants to adopt more lenient decision criteria for making their identification decisions. The current study employed a version of this same field-simulation paradigm to see if pre-admonition suggestion would result in even greater pressure to identify the suspect.

Instructional Bias and Suspect Similarity
Eisen and his colleagues also examined the protective effect of reading witnesses an admonition (i.e., may-or-may-not instruction) before conducting a showup (Eisen et al., 2017, Experiment 1). In this experiment, suspect similarity was manipulated by having the innocent suspect be either the same height and weight as the thief, or approximately six inches taller and 50 pounds heavier. Otherwise, they were dressed similarly (i.e., same common baseball cap, jeans, and black tee shirt) and were both Latino men who were about the same age. Results of this experiment revealed that when the suspect was a poor match to the culprit in terms of height and weight, the admonition reduced false identifications in the field-simulation condition by 31%. However, when the suspect was a good physical match to the culprit in terms of both clothing and build, the admonition was far less effective, and choosing in the field condition decreased by only 8%. In essence, when the suspect was a better match to the culprit, instructions designed to reduce bias had little effect on choosing; but when the suspect was clearly a poor match, the instructions had a large effect.
Brewer and Wells (2006) also examined the effect of instructional bias with high and low similar suspects. These investigators created sequential lineups in which the foils were either high or low in similarity to the culprit. Brewer and Wells found that in culprit-absent conditions, the may-or-may instruction reduced choosing to a greater extent when the foils were low in similarity to the culprit, compared with when similarity was high. Taken together, the findings from these experiments suggest that it may be easier to influence the decision criteria of witnesses when the suspect is a poor match to their memory for the perpetrator.

**Match-to-Memory and Eyewitness Decision Making**

Steblay (2013) proposed that when eyewitnesses approach an identification test, they will likely assume the police have caught the actual culprit. If expectations that the police have the culprit are high, but the witness is presented with a suspect who is a poor match-to-memory, they may question themselves, doubting their own perceptions in the face of the contextual factors that indicate that this should be the culprit. Steblay argued that the absence of recognition in the face of expectations that the actual culprit is likely present will often prompt witnesses to shift to a more deliberative decision making process (i.e., secondary process), in which non-memorial information that might help resolve this dilemma is more likely to be considered. However, when the match-to-memory is strong (i.e., when the actual culprit or someone who is very similar in appearance is presented), the identification will most likely be driven by the witness’ internal sense of ecphory. Since recognition memory happens quite quickly (Brewer & Weber, 2008), identifications made under these conditions are likely to occur with a great deal of automaticity, and as such, contextual factors that might otherwise be considered by the witness, are not required, and are therefore less likely to play a role in the identification decision. This account would explain why unbiased instructions have been found to raise decision criterion to a greater extent when considering non-similar compared with similar suspects (Brewer & Wells, 2006; Eisen et al., 2017, Experiment 1).

More recently, Smith, Wells, Lindsay, and Myerson (Under review) put forth the present/absent discrepant-criteria hypothesis to explain how identification decisions made in culprit-absent conditions are likely different than those made when the culprit is present. These investigators argue that when a suspect is a weak match to an eyewitness’ memory, as is the case in culprit-absent conditions, witnesses will use a more lenient decision criterion than when the suspect is a stronger match-to-memory. This new hypothesis is rooted in work by Verde and Rotello (2007), which indicates that when match-to-memory is weaker, people set lower decision criteria than when it is stronger. Verde and Rotello demonstrated this by manipulating the memory strength of word lists presented in blocks (strong versus weak) and found that when participants encountered blocks of weak words, they set a lower criterion for choosing then when they encountered the blocks of words with greater memory strength. Smith and his colleagues noted the importance of this finding, as it demonstrated that participants were not simply setting a single criterion apriori, but rather adjusted their criterion at the time of the memory test based on how well the stimuli matched their memory.

Like Steblay’s dual-process account, the present/absent discrepant-criteria hypothesis predicts that witnesses who are presented with innocent suspects at showups must explain why they are experiencing such a weak match-to-memory: Is it because the suspect is not the actual culprit, or is it because their memory is not very good (e.g., maybe they did not get a good view)? If the witnesses’ expectations that the police must have the right guy have been elevated by pre-admonition suggestion, but match-to-memory is weak, then witnesses are more likely to lower their criterion, thus increasing the chances of choosing. On the other hand, if match-to-memory is strong, it is more likely that the identification decision will be driven exclusively by the witnesses’ potent experience of ecphory, and extraneous factors like instructions and suggestion are less likely to be considered by the witness.

**The Current Study**

This study was designed to examine pre-admonition suggestion in showups using a highly realistic field-simulation paradigm where witnesses were led to believe that the theft and showup were all part of an actual investigation and that their identification would presumably lead to the arrest and prosecution of the suspect. Specifically, we were interested in the potential suggestive effects of overhearing communications between officers revealing their belief that they had ‘caught the guy’ on making both accurate and false identifications. The current study builds directly on the work of Eisen et al. (2017, Experiment 1); but, rather than comparing participants who were and were not admonished, this study examined the effect of pre-admonition suggestion by having the police admonish all the participants, and then comparing those who were and were not exposed to suggestive information indicating that the police believed they had caught the actual culprit.

It was predicted that participants who overheard the suggestive radio call would be significantly more likely to identify an innocent suspect despite being properly admonished and would be more confident in that false identification when compared with those who were not exposed to the suggestive communication. Moreover, we expected that the pre-admonition suggestion would be most potent in influencing witnesses when the suspect differed from the thief in terms of height and weight. However, when the suspect was a better match to the witnesses’ memory (same clothes and same height and weight), then choosing would be driven mainly by the better match-to-memory, and the effect of extraneous factors like the pre-admonition suggestion would be minimized. Following this same logic, we did not expect that the suggestion would have a significant effect on accurate identifications in culprit-present conditions, because choosing would be driven primarily by the very strong match-to-memory for the culprit who was viewed just 20 minutes earlier.
We also examined other aspects of the witnesses’ experience to see how various internal pressures may have affected their identification decisions. Specifically, we predicted that the pre-admonition suggestion would result in participants feeling more pressure to choose the suspect and that this effect would be greatest when the culprit was absent—when the expectations were elevated but the match-to-memory was weakest. Additionally, it was predicted that the pressure to make an identification would be related to increased self-efficacy overall. Finally, we examined cross-race effects in a multicultural urban setting.

METHOD

Participants

Two hundred thirty-four undergraduate psychology students were recruited at a state university in Southern California from the participant pool in exchange for course credit. Participants were 75.1% female and 24.9% male. The sample ranged in age from 18 to 63 years old with a mean age of 21.14 (SD = 4.2). When asked to identify their race, 61.1% identified themselves as Latino, 19.2% identified as Asian, 3.8% identified as African American, 3.4% identified as Anglo, and 12.4% identified themselves as ‘Other’ or did not specify. This distribution reflects the general makeup of the campus community and surrounding area.

Procedures

Participants were told that this was an experiment on memory and personality. The procedures were conducted on six separate occasions (once per quarter). Participants were sequestered in a single room while they waited to participate to make sure they were not exposed to law enforcement activity or in contact with other students who had already participated. While in the waiting room, participants completed the NEO-PI-R (Costa & McCrae, 1992). Participants were escorted in groups of seven to take part in the procedures. The confederate/thief (hereafter, ‘the thief’) was embedded in each group as they were escorted to the lab where the theft was to be staged.

Exposure to the thief and the staged crime

Once they arrived at the lab, students were seated around a table. The thief always sat at the head of the table and interrupted the reading of the informed consent by taking a cell phone call, and he continued talking on his phone for approximately 20 seconds while the experimenter repeatedly asked him to end the call. This was carried out to draw attention to himself and maximize exposure. After taking the call, the thief set the timer on his cell phone for 7 minutes. Immediately after completing the consent procedures, participants were assigned to work stations around the room where they were administered the Minnesota Multiphasic Personality Inventory-2, via computer. The thief was always seated at a laptop workstation by the door. Seven minutes after taking the cell phone call, the thief’s phone timer went off (silently, on vibrate), and he ran out of the room with the laptop computer he had been using. The experimenter gave chase, and then returned to the room and stated aloud, ‘That guy just stole our laptop.’ The second experimenter then said, ‘You had better call Dr. Eisen.’

The crime report

The experimenter then made a phone call to report the theft in front of the participants so they could all hear what he/she said. The experimenter accurately described the thief as a ‘medium-height, medium-weight, Latino male with a dark shirt, jeans, and a Dodgers cap’ (baseball hat from the Los Angeles Dodgers baseball team). The experimenter described the laptop as a ‘silver Mac’. The experimenter was prompted on what to say by the party on the other end of the call in order to ensure uniformity across all trials. The experimenter then ended the call and stated aloud, ‘Dr. Eisen will call the police, and he said you guys should finish the procedures to make sure you get your research credit.’

Ten minutes after the crime was reported, a campus police officer in full uniform responded to the scene. The officer took brief reports from the research assistants first, and the participants never got the opportunity to make statements. The research assistant only reported what was already discussed in front of the group when the crime was called in (e.g., reiterating that he was a medium height, medium weight, Latino male with a dark shirt, jeans, and a Dodger cap who ran off with a silver Mac laptop computer during the procedures).

The experimental manipulation

Two minutes into taking the reports from the experimenters, and before the participants/witnesses could make their reports, the officer received a radio call. His radio was set to high volume to ensure that all six participants heard the message clearly. In the control condition, the voice on the radio stated, ‘The L.A. County Sheriff has detained an individual who matches the description of the thief and they want you to bring the witnesses down to the loading dock behind King Hall to make an identification.’ In the experimental condition, the voice on the radio stated, ‘The L.A. County Sheriff caught the guy behind the building and they want you to bring the witnesses down to the loading dock behind King Hall to make an identification.’ The sheriff’s department headquarters is less than a mile away, and they have a significant presence on campus. Plus, the campus was fairly empty on the day of the experiment, adding to the plausibility of the sheriff’s involvement in catching the thief outside the building. Groups were randomly assigned to either control (N = 90) or suggestion conditions (N = 99), as every other group heard either the suggestive or non-suggestive radio call.

The identification procedure

The campus police officer escorted the participants/witnesses to the ground floor of the building (near the door to the loading dock) where they met with a uniformed Los Angeles County Sheriff’s Deputy.

The Showup

After instructing the participants as a group, the officer escorted each witness individually to view the suspect, who
was located just outside the building in handcuffs standing next to another sheriff’s deputy by a patrol car. The participants stood indoors and viewed the suspect though two full length glass doors to protect the witness from being seen by the suspect. The officer took notes during the showup procedure to document confidence ratings for both positive identifications and correct rejections of the innocent suspect. Confidence was assessed by asking the witnesses to rate how confident they were in their identification decision (yes or no) on a 0–100 scale, with 100 being perfectly confident and 0 being not confident at all. After making their identification decision, each witness was escorted to a separate area about 20 yards from the witnesses who had not yet viewed the suspect.

Similarity: The innocent suspect versus the thief

Participants were assigned to either culprit-present ($N = 84$) or culprit-absent conditions ($N = 105$). Participants in the culprit-absent conditions were assigned to either similar ($N = 49$) or non-similar conditions ($N = 56$). In the similar condition, the thief was approximately the same height and weight as the innocent suspect. In the non-similar condition, the thief and the innocent suspect differed by approximately six inches and 50 pounds, one being approximately 5’6” and weighing 150–180 pounds and the other being approximately 6’0” tall and weighing 240–260 pounds. Otherwise, they were both Latino men and their clothes were generally similar. Both wore blue jeans and a black T-shirt, and both were wearing a blue Los Angeles Dodgers baseball cap. Latino men wearing this standard style Dodger cap on campus is very common. The use of the cap also controlled for differences in hair styles between the actors.

Groups were randomly assigned to suggestion versus no suggestion conditions, and within culprit-absent conditions, similarity was systematically varied. However, target-present and target-absent trials were carried out at different times of day (e.g., half of the day TA and second half TP). This was carried out because of logistical issues of getting the actual thief to the showup with the police after the theft, rather than the innocent suspect.

Stimuli: Thieves and innocent suspects

For culprit-absent conditions, three different matched similar/non-similar innocent suspect/thief pairings were used to conduct the showups for the field condition. In each case, the pairs were clean-shaven Latino men in their early 20s. One was always approximately 5’6” and the other was approximately 6’ tall, and they differed in weight by approximately 50 pounds. This approach both offered the clear advantage of stimulus variability but also introduced the potential for differences across groups run on different dates. Although there was expected variation in performance across the different dates within conditions, the basic pattern of results did not vary across days, and chi-square analyses revealed no significant differences in choosing within

1 Group sizes were uneven due to unpredictable attrition related to participants failing the manipulation checks or whole groups being dropped due to procedural errors in running the field-simulation paradigm.

Administrator variability that one would hope for in a field experiment of this type but also introduced the potential for differences across groups run on different dates. As noted earlier, chi-square analyses revealed no significant differences in choosing within conditions across days when different actors and/or officers were used.

Post-event questionnaire

After the identification procedures were completed and participants were debriefed about the deception, participants were asked to complete a questionnaire about the experience related to the following issues: (1) their identification decision and confidence rating; (2) their belief that the theft and showup procedures were real; (3) whether they heard the radio call and could recall the gist of the message; (4) if they had heard the theft was staged for research; (5) if seeing the suspect in handcuffs made them assume that that person was guilty; (6) whether they felt pressured or obligated to identify the suspect in custody at the showup; and (7) why they thought the suspect was or was not the actual culprit in their own words.

Manipulation check and screening for prior knowledge of the staged crime

As part of the post-event questionnaire, participants were asked if they had heard the radio call, and if so, they were to write down what they had heard. Ninety-five percent of the participants (223/234) reported having heard the dispatch and were able to describe the gist of the communication correctly. Since the experimental manipulation and simulation as a whole were dependent on hearing the radio call, the 11 participants who reported either not hearing the dispatch or recalling the details were dropped from all analyses.

Participants were also asked if they had heard from anyone else that the theft and identification procedures were staged for research. Thirty-three participants reported having heard about the study before participating, and they were also dropped from the analyses, creating a sample of 189 participants.

How persuasive was the deception?

The post-event questionnaire also asked if the participants believed the identification procedures were real, or thought it was staged for research purposes. If participants indicated that they thought the procedures were staged, they were asked to rate how sure they were that the identification procedures were staged for research on a scale of 1–100, where
A hierarchical binary logistic regression was conducted with effects. Latino for all analyses to examine potential cross-race Latino, ethnicity was dummy coded as Latino versus non-similar). Since more than half of the participants were suspect similarity was systematically varied (similar versus was employed. Also, within the culprit-absent condition, × 2 (culprit presence: present versus absent) design A 2 (suggestion: we got the guy versus no suggestion control), target presence (present versus absent), race (Latino versus other), and gender as predictors. In the following predictors: suggestion (we got the guy versus no suggestion control), target presence (present versus absent), race (Latino versus other), and gender as predictors. In the first block, all main effects were entered. See Table 1 for choosing rates across all conditions. The predictor model was a significant improvement over the constant-only model, $X^2 (4, N = 189) = 24.80, p < .001$. Results revealed that participants who overheard the suggestive radio call were 42% more likely to identify the innocent suspect ($B = -.88, SE = .32, Wald = 7.45, p < .01, \phi^2 = .42$). Also, when the actual culprit was presented at the showup, participants were 3.4 times more likely to make an identification than when an innocent suspect was presented ($B = 1.23, SE = .32, Wald = 14.74, p < .001, \phi^2 = 3.42$). However, race did not predict choosing ($B = .25, SE = .33, Wald = .54, p = .46, \phi^2 = 1.28$), and neither did gender ($B = .01, SE = .36, Wald = .001, p = .98, \phi^2 = 1.01$).

The second block examined two-way interactions between each of the variables entered. These analyses showed a significant improvement in the model $X^2 (6, N = 189) = 27.79 p < .001$ and revealed a significant interaction between culprit presence and suggestion ($B = 1.91, SE = .75, Wald = 6.47, p = .01, \phi^2 = 6.76$). Supplemental chi-square analyses revealed that when the culprit was absent, participants who heard the pre-admonition suggestion were significantly more likely to mistakenly choose the innocent suspect (52.0%) than those in the control condition (23.2%), $X^2 (1, N = 106) = 9.41, p < .01, \phi = .30$. However, when the culprit was present, participants who heard the pre-admonition suggestion were not significantly more likely to accurately choose the culprit (69.4%) than those in the control condition (65.7%), $X^2 (1, N = 84) = 1.26, p = .72, \phi = .04$ (Table 1). These analyses also revealed a significant interaction between race and suggestion ($B = 3.06, SE = .83, Wald = 11.89, p < .01, \phi^2 = 21.23$). Supplemental chi-square analyses revealed that when the participant was a different race than the thief and innocent suspect (non-Latino), participants who heard the pre-admonition suggestion were significantly more likely to choose the suspect (71.1%) than those in the control condition (17.2%), $X^2 (1, N = 74) = 20.47, p < .001, \phi = .53$. However, when the participant and innocent suspect were the same race (both Latino), those who heard the suggestion were not significantly more likely to choose (51.9%) than those in the control group (50.0%), $X^2 (1, N = 116) = .40, p = .84, \phi = .02$. In the third block of the hierarchical regression, three-way interactions were examined. No significant three-way interactions were observed.

**Results**

A hierarchical binary logistic regression was conducted with identification decision as the dependent variable, and the following predictors: suggestion (we got the guy versus no suggestion control), target presence (present versus absent), race (Latino versus other), and gender as predictors. In the first table, all main effects were entered. See Table 1 for choosing rates across all conditions. The predictor model was a significant improvement over the constant-only model, $X^2 (4, N = 189) = 24.80, p < .001$. Results revealed that participants who overheard the suggestive radio call were 42% more likely to identify the innocent suspect ($B = -.88, SE = .32, Wald = 7.45, p < .01, \phi^2 = .42$). Also, when the actual culprit was presented at the showup, participants were 3.4 times more likely to make an identification than when an innocent suspect was presented ($B = 1.23, SE = .32, Wald = 14.74, p < .001, \phi^2 = 3.42$). However, race did not predict choosing ($B = .25, SE = .33, Wald = .54, p = .46, \phi^2 = 1.28$), and neither did gender ($B = .01, SE = .36, Wald = .001, p = .98, \phi^2 = 1.01$).

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**Table 1. Rates of identifications across all conditions**

<table>
<thead>
<tr>
<th>Suggestion: ‘we got the guy’</th>
<th>No suggestion control</th>
</tr>
</thead>
<tbody>
<tr>
<td>Target absent</td>
<td>Target present</td>
</tr>
<tr>
<td>% N</td>
<td>% N</td>
</tr>
<tr>
<td>---</td>
<td>---</td>
</tr>
<tr>
<td>All participants</td>
<td>52.0% (26/50)</td>
</tr>
<tr>
<td>Non-similar</td>
<td>48.1% (13/27)</td>
</tr>
<tr>
<td>Similar</td>
<td>56.5% (13/23)</td>
</tr>
</tbody>
</table>

After removing the 56 doubts who suspected the procedures were being carried out for research purposes

| All participants | 56.3% (24/40) | 75.0% (29/39) | .51 | .42 | 43.7% (11/31) | 65.2% (15/23) | .55 | .12 |
| Non-similar | 55.0% (11/20) | 75.0% | .55 | .40 | 26.7% (4/17) | 65.2% | .55 | .12 |
| Similar | 65.0% (13/20) | 75.0% | .29 | .53 | 50.0% (7/14) | 65.2% | .39 | .20 |

The regression analyses were conducted a second time after excluding the 56 participants in the field condition who reported that they suspected the procedures were staged for research purposes. These analyses revealed the same pattern of results.

Suspect similarity
The regression analyses were repeated with only the culprit-absent participants to examine the potential effect of suspect similarity on identifications. For these analyses, identification decision was the dependent variable, and the same set of predictors were used (suggestion, race, and gender), except culprit presence was replaced with suspect similarity (similar versus non-similar). In the first block of the analysis, all main effects were entered, and the predictor model was found to be a significant improvement over the constant-only model, $X^2 (4, N = 103) = 16.76, p = .002$. The participants were 2.4 times more likely to identify the similar suspect who was about the same height and weight as the culprit than the non-similar suspect ($B = .88, SE = .46, Wald = 3.73, p = .05, e^B = 2.41$). Also, in this regression, which was restricted to only the culprit-absent conditions, participants who overheard the suggestive radio call were 22% more likely to identify the innocent suspect than the participants in the no suggestion control condition ($B = -1.53, SE = .46, Wald = 11.01, p = .001, e^B = .22$). However, gender did not predict choosing ($B = .34, SE = .51, Wald = .45, p = .50, e^B = 1.41$), and neither did race ($B = -.72, SE = .49, Wald = 2.19, p = .14, e^B = .06$). See Table 1 for choosing rates across all conditions. In the second block, two-way interactions were entered, and in the third block, three-way interactions were entered. No significant interactions emerged.

The regression analyses were conducted a second time after excluding the 56 participants in the field condition who reported that they suspected the procedures were staged for research purposes, and the same pattern of results was revealed.

Confidence
A 2 (suggestion: suggestive radio call versus no suggestion control) × 2 (culprit presence: present versus absent) × 2 (identification decision: yes versus no) ANOVA was conducted to examine the relative effects of the suggestion, culprit presence, and identification decision on witness confidence. Given that suspect similarity was not perfectly crossed (as similarity was only varied in the culprit-absent condition), participants were collapsed across similarity for purposes of these analyses. Descriptive data from these analyses can be found in Table 2. A main effect was revealed for identification decision, as choosers displayed higher confidence in their identification decisions, $M = 78.99, 95\% \text{ CI} [72.33, 85.66]$, than non-choosers, $M = 39.26, 95\% \text{ CI} [31.87, 46.65], F(1, 184) = 62.12, p < .001, \eta^2_p = .26$. However, no difference in confidence was found between culprit-present or absent identifications, $F(1, 184) = 0.55, p = .46$, or decisions made in the suggestive versus non-suggestive conditions, $F(1, 184) = 0.13, p = .72$.

These analyses revealed a significant interaction between culprit presence and identification decision, $F(1, 184) = 15.00, p < .001, \eta^2_p = .08$. Not surprisingly, choosers were far more confident in their decisions when the culprit was present ($CP$) than when he was absent ($CA$). In essence, choosers were more confident in accurate compared with false identifications. This difference was quite large in the control group ($CP: M = 87.82, CA: M = 62.31, Cohen’s d = 1.25$) but was relatively small in the suggestive condition ($CP: M = 85.97, CA: M = 79.89, Cohen’s d = .30$).

An interaction between choosing and experimental condition was also revealed, $F(1, 184) = 3.70, p < .06, \eta^2_p = .02$. Close examination of Table 2 shows that when the actual culprit was present at the showup, choosers showed comparably high levels of confidence in both the suggestive ($M = 85.97$) and control conditions ($M = 87.82$) and non-choosers showed comparably low levels of confidence in their incorrect rejections across conditions (suggestion $M = 29.20, control M = 26.07$). However, when an innocent suspect was presented, participants in the suggestion condition were substantially more confident in their false identifications ($M = 79.89$) than the controls ($M = 62.31$), Cohen’s $d = .71$, and were also less confident in their correct rejections than the controls (suggestion $M = 40.91$, control $M = 60.86$), Cohen’s $d = .47$.

These analyses were repeated after removing the 56 participants who reported that they suspected the procedures were staged for research purposes. Again, a main effect was revealed for identification decision, as choosers displayed higher confidence in their identification decisions, $M = 77.55, 95\% \text{ CI} [70.57, 84.53]$, than non-choosers.

Table 2. Confidence across all conditions

<table>
<thead>
<tr>
<th>No suggestion control</th>
<th>Suggestion: We got the guy</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Identification</strong></td>
<td></td>
</tr>
<tr>
<td></td>
<td>M (SD)</td>
</tr>
<tr>
<td></td>
<td></td>
</tr>
<tr>
<td>All participants</td>
<td>78.34 (22.48)</td>
</tr>
<tr>
<td>Culprit absent</td>
<td>62.31 (25.30)</td>
</tr>
<tr>
<td>Culprit present</td>
<td>87.82 (14.11)</td>
</tr>
<tr>
<td>No doubters: After removing the 56 participants who suspected the procedures were staged for research</td>
<td></td>
</tr>
<tr>
<td>All participants</td>
<td>73.92 (22.79)</td>
</tr>
<tr>
<td>Culprit absent</td>
<td>60.00 (24.57)</td>
</tr>
<tr>
<td>Culprit present</td>
<td>84.13 (15.21)</td>
</tr>
</tbody>
</table>

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Pressure to choose

Chi-square analyses were conducted to examine self-reports of feeling pressured to make an identification by participants across the experimental conditions. Results of these analyses revealed that participants in the suggestion condition were more likely to report feeling pressured to make an identification (43.4%) than were participants in the control condition (27.8%), $X^2(1, 189) = 5.02, p < .05, \phi = .16$. However, further analyses showed that the difference was only evident when the culprit was absent $X^2(1, 105) = 4.84, p < .03, \phi = .16$, and no relationship was found in culprit-present conditions $X^2(1, 84) = .77, p < .001, \phi = .09$ (Table 3). Moreover, participants who were reported feeling pressured to choose were more likely to identify the suspect (63.2%), compared with those who reported no such pressure (43.8%). $X^2(1, 189) = 6.58, p = .02, \phi = .19$. Again, further analyses revealed that this difference was only evident when the culprit was absent $X^2(1, 105) = 15.32, p < .001, \phi = .38$, and was not significant when in culprit-present conditions $X^2(1, 84) = .25, p = .64, \phi = .06$. These analyses were repeated after removing the doubters, and although participants who felt pressured were still more likely to choose in culprit-absent conditions, pressure was no longer significantly related to suggestion.

DISCUSSION

This experiment was designed to examine the effect of overhearing suggestive information indicating that the officers thought they had ‘caught the guy’ on making an identification at a showup conducted by police in the field. This experiment was conducted in a highly realistic setting where witnesses were led to believe they were involved in an actual criminal investigation, and their decision would result in the suspect being arrested and prosecuted.

As predicted, when the culprit was absent, participants who overheard the suggestive radio communication indicating that the officers believed they had caught ‘the guy’ were substantially more likely to mistakenly identify the innocent suspect presented at the showup. Table 1 shows that when considering the sample as a whole, participants who overheard the suggestive radio call falsely identified the innocent suspect more than twice as often as those in the control condition (52.0% vs. 23.6%), and the difference was even greater when the suspect was not a good match to the culprit in terms of height and weight (48.1% vs 13.8%). These results replicate and extend the work of Quinlivan et al. (2012) and show that the pre-admonition suggestion effect generalizes to showups conducted under highly realistic field-simulation conditions and is potent even when the suggestion is quite subtle (i.e., overhearing radio communications between officers). These data highlight important limits to the protective effect of the admonition and show that when witnesses are exposed to suggestive information that runs counter to instructions designed to warn them against assuming that the person being presented is the actual culprit, the cautionary effect of the admonition is largely eliminated.

Culprit-present choosing

Although overhearing the suggestive radio call indicating that the police believed they had caught ‘the guy’ had a large effect on choosing in culprit-absent conditions, when the actual culprit was presented at the showup, the effect was much smaller and not statistically significant. In essence, the suggestion did not simply result in a criterion shift that increased choosing equally across the board. Rather, the suggestion had a differential impact on choosing dependent on the presence of the culprit.

This predicted pattern of findings fits well with the present/absent discrepant-criteria hypothesis described earlier (Smith et al., under review) and suggests that when participants were faced with a suspect who was a poor match-to-memory (i.e., when presented with an innocent suspect), they may have lowered their criterion for choosing. If witnesses do in fact lower their criterion for choosing when faced with a suspect who is a poor match-to-memory,
then it may be easier to influence the decision criteria of eyewitnesses who encounter innocent suspects than it is for those who encounter guilty suspects. Some evidence of this comes from research on the post-identification feedback effect (e.g., Bradfield, Wells, & Olson, 2002; Charman & Wells, 2012). Bradfield et al. (2002) found that confirming feedback increased confidence in innocent suspect identifications to a greater extent than confidence in culprit identifications. According to their Selective Cue Integration Framework, eyewitnesses use external information when they do not have a strong match-to-memory experience. Because eyewitness confidence is really just an extension of an eyewitness’ decision criterion (Wixted & Gaitan, 2002), the logic of the Selective Cue Integration Framework can also be applied to an eyewitness’ identification decision.

**Similarity, same race bias, and match-to-memory**

If eyewitnesses are more reliant on external information when match-to-memory is weak, then pre-admonition suggestion should be most potent when the innocent suspect is clearly a poor match to the culprit in terms of physical appearance. Indeed, as expected, pre-admonition suggestion increased choosing significantly in the non-similar condition when the innocent suspect was dressed similarly but was otherwise a very poor match to the culprit in terms of physical build, but not in the similar condition when the thief and innocent suspect were a good match in regards to both clothing and build. This is consistent with the pattern of results reported by Eisen et al. (2017, Experiment 1), who found that contextual factors designed to induce response bias (i.e., not reading the admonition to participants before the showup), significantly increased choosing in the non-similar, but not the similar condition. In both the current study and in this previous experiment, when the physical appearance of the innocent suspect was quite similar to the thief (i.e., same clothes and same height and weight), contextual factors like pre-identification instructions and pre-admonition suggestion had a more minimal effect on choosing. However, in the non-similar condition, when the match-to-memory was designed to be poor, biased instructions and pre-admonition suggestion significantly increased false identifications.

**Cross-race effects**

Previous research has shown that people are better at recognizing faces from their own race compared with other races (Meissner & Brigham, 2001). Therefore, it should logically be more difficult for witnesses to match other race faces to their memory for the culprit. Although this experiment was conducted in a large multicultural metropolitan area, a cross-race effect emerged. Specifically, interactions emerged between race and both suggestion and culprit presence. In culprit-absent conditions, innocent suspect identifications were significantly higher in the cross-race group, but, when the culprit was present, accuracy was not affected. Also, when only considering culprit-absent conditions, pre-admonition suggestion dramatically increased choosing for the cross-race group (5% to 55%) but had a more modest and non-significant effect on same race choosing (33% to 50%). Taken together, the pre-admonition suggestion clearly had its greatest effect in the conditions when match-to-memory was presumably weakest; when the culprit was absent, when the innocent suspect was a poor physical match to the culprit, and when the witness was from a different race.

**Pressure to choose**

The results of the current study replicate the findings of Eisen et al. (2017, Experiment 2), who used the exact same paradigm and also found that participants who reported feeling pressure to choose were significantly more likely to falsely identify the innocent suspect in culprit-absent conditions, but pressure was not related to choosing when the actual culprit was presented at the show up. Moreover, in the current experiment, this effect was clearest in the suggestion condition. In essence, the pre-admonition suggestion appeared to heighten the expectation that the police had caught the actual culprit, and then, when the witness was faced with an innocent suspect who did not match their memory of the thief, they were put in a rather difficult situation where all of the contextual factors indicated that he must be the thief, but they were not experiencing a strong sense of recognition. This situation appeared to induce added pressure to choose, which made it more difficult to reject the innocent suspect. The confidence data shed additional light on this pattern of findings.

**Confidence**

Choosers exhibited heightened confidence across conditions relative to rejecters regardless of whether they were making accurate or false identifications. This replicates the results reported by Eisen et al. (2017), who observed this same pattern of responding when using a very similar version of this field-simulation paradigm. Eisen and his colleagues postulated that heightened expectations provoked by being presented with a suspect in custody, in what they are lead to believe is an actual police investigation, both enhanced confidence in identifications, and made witnesses doubt themselves when they rejected the suspect. These investigators argued that pressure to choose the suspect led to a criterion shift, resulting in more lenient criterion for choosing and a more stringent criterion for rejection. In essence, the pressure to choose made it more difficult to reject, and when they did reject, they did so with lower confidence.

In the current study, when the culprit was present, no difference in confidence was found between choosers or rejecters across the suggestion and control conditions. However, when the culprit was absent, participants who overheard the suggestive radio call were substantially more confident in their false identifications compared with those in the control condition, both when considering the sample as a whole and after removing the doubters. It appears that over hearing the suggestive radio call not only increased choosing, but also bolstered the witnesses’ confidence in mistaken identifications. This replicates the results reported by Quinlivan et al. (2012), who also found that pre-admonition suggestion bolstered confidence in false identifications.
When examining correct rejecters in culprit-absent conditions, participants who overheard the suggestive radio call were less confident in their correct decision to not identify the innocent suspect compared with controls, both when looking at all participants and after removing the doubters. It appears that the increased pressure to choose induced by the pre-admonition suggestion made it more difficult to reject, and when they did reject, they did so with lower confidence. Overall, overhearing the suggestion that the police believed they had caught the guy boosted expectations that the police had detained the actual culprit, leading to increased confidence among choosers, and also suppressed confidence among rejecters.

**SUMMARY AND CONCLUSIONS**

Overall, these data replicate the work of Quinlivan et al. (2012) and show that the pre-admonition suggestion effect generalizes to showups conducted under highly realistic conditions where the witnesses were led to believe that their identifications would lead to the arrest and prosecution of the suspect. Moreover, these new data indicate that the dangerous effect of this type of suggestion may be limited to culprit-absent conditions and is most likely to increase false identifications when the innocent suspect is a poor physical match to the culprit and when the witness is from a different race. Under these conditions, match-to-memory is presumably weakest, and the suspect is more likely to be influenced by contextual factors surrounding the identification procedures that have the potential to induce response bias.

Although these data give us a look at how witnesses perform when they learn that the police think they have caught the actual culprit under real-world conditions, these findings are clearly limited to the conditions examined in this experiment. It is possible that different types of pre-admonition suggestions introduced using other field-simulation paradigms may yield different results. More field-simulation studies are needed using different paradigms with more complete random assignment schemes to see how these findings generalize to other conditions and different types of identification procedures.

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