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Does Anyone Else Look Familiar? Influencing Identification Decisions by Asking Witnesses to Re-Examine the Lineup

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Two experiments were conducted to see if asking witnesses to take another look at the lineup after they voiced their identification decisions would alter their choices, and if confirming feedback could then be used to solidify the selections they shifted to. Participants watched a simulated crime and were asked to identify the culprit from a photographic lineup. After voicing their identification decisions, participants were prompted to re-examine the lineup. Half of the participants then received confirming feedback for their decisions, regardless of whether they shifted to a new picture or not. Later on, a different experimenter escorted participants to a second room and administered the same lineup again. In Experiment 1 (N = 432), biased instructions were used to encourage choosing, and when participants were prompted to re-examine the lineup, 70% changed their identification decisions and selected a different picture. When that new selection was reinforced with feedback and participants were given a second opportunity to identify the culprit at a later time, 72% selected the picture they shifted to as the culprit. Participants who made their decisions more quickly were less likely to shift, but accuracy did not predict shifting. This general pattern of findings was replicated using unbiased instructions in Experiment 2 (N = 237). Results suggest that prompting witnesses to re-examine the lineup can often lead witnesses to change their identification decisions, and when the altered choice is reinforced, they will often stay with that influenced decision over time, asserting it with a high degree of confidence.

Public Significance Statement
Results of this study revealed that seemingly innocuous comments made by lineup administrators can have a significant impact on witness identification decisions. The results of these experiments add to the growing number of studies showing the importance of using double-blind controls when administering photographic lineups.

Keywords: eyewitness, lineups, suggestibility

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It is a well-established principle that one person's expectations can be conveyed to another in such a manner that it will influence their response, leading them to behave as expected (Rosenthal & Rubin, 1978). The social influence exerted by expectancy effects can occur quite inadvertently, without intent, and without the person exerting the influence even being aware it is happening (see Rosenthal, 2002 for a review). It is also generally accepted among eyewitness researchers that this basic principle of social influence applies to the interaction between the person administering a photographic lineup and the eyewitness who is attempting to make an identification, as the expectations of the lineup administrator can influence the witness's choice (Charman & Quiroz, 2016; Greathouse & Kovera, 2009; Kovera & Evelo, 2017). The potential for influence in this context can be negated by creating conditions in which the person administering the lineup is *blind* to who the suspect is, and where they are positioned in the group. This is commonly referred to as a *double-blind* procedure, in which the witness and the administrator are both blind to the position of the suspect in the lineup. Eyewitness experts have identified the use of double-blind lineup procedures as one of the most important reforms to be implemented in day-to-day police work to reduce the risk of misidentification (Kovera & Evelo, 2017; Rodriguez & Berry, 2013; Wells et al., 1998; Wells, Memon, & Penrod, 2006). Although there is no real disagreement about the notion that nonblind lineup administrators can influence

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the witness's decision-making, there is some debate about the form this influence will most likely take, and its likely impact on the prosecution of eyewitness cases.

Many investigators have argued that the expectations of nonblind administrators will often lead to a shift away from filler picks toward suspect identifications (Charman & Quiroz, 2016; Greathouse & Kovera, 2009; Rodriguez & Berry, 2013; Steblay & Dysart, 2016; see Kovera & Evelo, 2017 for a recent review). These investigators emphasize the importance of witness steering (Greathouse & Kovera, 2009), which involves the investigator guiding the witness away from filler choices, toward suspect identifications with cues that can be either quite subtle and inadvertent, or in some cases, consciously intended and overtly blatant. Other investigators, who rely on cognitively based models of eyewitness decision-making that do not account for social influence, have noted that the use of nonblind administrators should lead to a simple shift in the witnesses' criterion for making a selection, resulting in proportional increases in both correct and incorrect identifications (Clark, Brower, Rosenthal, Hicks, & Moreland, 2013; Clark, Marshall, & Rosenthal, 2009). Researchers who support the steering perspective have argued that the influence of the nonblind lineup administrator will not simply lead to a criterion shift, but rather, will result in a redistribution of choices among participants who are already willing to make a selection; specifically, away from fillers and toward the suspect (see Kovera & Evelo, 2017 for a recent review).

Steering, Influence, and Confidence

The behavior of a lineup administrator can also influence witness confidence. Greathouse and Kovera (2009) hypothesized that witnesses with a weaker memory for the perpetrator would be more affected by administrator influence than those who have stronger memories. Clark et al. (2013) reasoned that because low-confidence witnesses are more likely than high-confidence witnesses to be affected by the steering behaviors of biased lineup administrators, suspect identifications made by witnesses who were influenced to shift their decisions are more likely to be made with lower confidence. Clark and his colleagues examined this issue by training lineup administrators to provide the type of influence prompts that biased, nonblind examiners might use in actual cases. These administrators were trained to respond to tentative filler identifications by saying, "Are you saying #__ is the guy, or that #__ looks similar to the guy from the video?", and to nonidentifications by saying, "If you see the guy just let me know, take your time, there's no rush, just look at the photographs carefully." As expected, Clark and his colleagues found that the low-confidence witnesses were more likely to be influenced by the administrator's behaviors, and that the influenced identifications tended to be made with lower confidence. Clark and his colleagues reasoned that since identifications resulting from administrator influence are likely to be made with low confidence, these identifications will likely be given less weight by the trial court, and, ultimately, by jurors. Of course, this argument does not account for the very real possibility that many of these low-confidence identifications will be reinforced with some form of confirming feedback, and that they will evolve into high-confidence identifications by the time the case goes to trial.

How Low-Confidence Influenced Decisions Can Become High-Confidence Identifications

Wells and Quinlivan (2009) proposed that the suggestive administration of lineups should increase both false identifications and witness confidence expressed in the mistaken decisions. Consistent with this hypothesis, Charman and Quiroz (2016) found that identifications obtained by nonblind administrators were made with higher confidence compared with identifications made when double-blind controls were used (also see Garrioch & Brimacombe, 2001). Charman and Quiroz argued that the postidentification behaviors of the nonblind experimenters likely reinforced suspect identifications. Specifically, Charman and Quiroz observed that nonblind administrators often responded to suspect identifications with a smile, which many participants may have interpreted as confirmation that their choices were correct. It is well-established that confirming postidentification feedback can have a profound effect on bolstering a witness's confidence in their identification (Wells & Bradfield, 1998; see Steblay, Wells, & Douglass, 2014 for a recent review). Charman and Quiroz argued that subtle postidentification behaviors by administrators, like smiling when the suspect is identified, can function as a form of reinforcement, which would likely inflate witness confidence in the selected photo. These authors also point out that this type of response to suspect identifications made by nonblind administrators has been observed in other studies (Garrioch & Brimacombe, 2001; Zimmerman, Chorn, Rhead, Evelo, & Kovera, 2017).

Ultimately, there is general agreement among researchers that biased administrator behaviors that *precede* the final selection can alter witness decision-making. There is also no disagreement about the notion that administrator influence should have the greatest effect on low-confidence witnesses. There is though, some debate about the adverse effect these influenced decisions will likely have on the prosecution of any given case, and whether double-blind controls are urgently needed to protect against the potential dangers of administrator influence. Some theorists who ascribe to a strict cognitively based model of witness decision-making play down concerns over the adverse effects of administrator influence and the need for double-blind controls. For example, Clark et al. (2013) argue that because influenced decisions are likely to be made with low confidence, identifications that are the result of influence are unlikely to affect the prosecution of cases that are based solely on the eyewitness evidence. Other theorists strongly disagree with this assessment and have argued that administrator influence can have a profound effect on the prosecution of eyewitness cases, and that double-blind controls are sorely needed, not just to protect against steering, but also to guard against the potential for nonblind examiners to engage in postidentification behaviors that can bolster witness confidence (Charman & Quiroz, 2016; Zimmerman et al., 2017). Specifically, Charman and Quiroz argue that nonblind administrators frequently engage in *post*-identification behaviors, such as smiling when the suspect's photo is selected, which can quickly change these low-confidence selections into high-confidence identifications. In actual cases, even if the administrator does not immediately respond to the suspect choice with a smile or any other type of confirmatory behavior and/or comment, some type of confirmation will likely occur at some point in time, like a call from the government noting that they are taking the case to trial and need the witness to come to

court to testify about their identification of the suspect/defendant. The current study addressed these issues by examining the effect of an influence prompt that precedes the final identification decision, in combination with confirming feedback given after the final identification was documented, to test the effectiveness of the postidentification feedback in solidifying decisions participants were steered to.

The Current Study

The current study used a modified version of the administrator influence paradigm used by Clark et al. (2013). Specifically, the lineup administrator responded to all identification decisions by asking the witnesses, "Take another look, does anyone [else] look familiar?" The current study builds on and extends the work of Clark and his colleagues in a couple of ways. First, Clark et al. (2013) only offered the influence prompts when tentative filler identifications were made, and did not attempt to influence suspect identifications, definitive filler choices, or definitive rejections. In the current study, all participants were prompted to re-examine the lineup regardless of what they decided or how quickly those decisions were made. This procedure allowed us to test the potency of this form of social influence, even in the face of quick and/or accurate decisions. Also, unlike Clark, we did not provide specific prompts designed to keep participants on track, as we were most interested in the effect of the influence prompts on witnesses *after* they had already voiced their identification decisions. Moreover, Clark and his colleagues did not report how frequently participants responded to the influence prompts by shifting to another picture, and did not examine the accuracy and/or confidence of those influenced participants who shifted their decisions. Eisen, Perez, Ushibishi, Montes, and Ritter (2005) tested a variation of the influence prompt used by Clark and his colleagues, and found that asking participants, "Are you sure, does anyone else look familiar?" after they had voiced their identification decisions led the majority of the participants to change their decisions and select a different photo. The current study also extends Clark's work by examining whether accurate witnesses were more or less likely to shift compared with inaccurate witnesses, and whether those who made more immediate decisions were more likely to shift than participants who took longer to make their identification decisions. In addition, in the current study, after the identification decisions were made, half of the participants were given confirming feedback to examine confidence in the altered decisions. This also allowed us to examine a behavioral manifestation of the postidentification feedback effect, to see if the confirming feedback led participants to select the pictures they shifted to when given a second chance to identify the culprit at a later time.

Two experiments were conducted. In the first experiment, biased instructions were used to encourage choosing. In the second experiment, unbiased instructions were used.

Experiment 1

Participants viewed a simulated crime and were asked to make an identification from a culprit-present or culprit-absent six-person photo array. The administrator responded to all identification decisions by prompting each witness to take another look at the photos to see if anyone else looked familiar. After being prompted to re-examine the lineup, half of the participants then received confirming feedback for whatever decisions they settled on. Later on, participants met with a different experimenter, were shown the same photo array a second time, and were asked again to identify the culprit.

Preidentification Administrator Behaviors and Postidentification Feedback

This experiment was designed to look at two levels of administrator influence that can potentially affect eyewitnesses: preidentification behaviors by the administrator that can influence decision making, and postidentification behaviors that can affect confidence in the influenced decisions. Preidentification administrator behaviors were defined as behaviors of the lineup administrator that precede documentation of the final identification decision which could influence decision-making.

Hypotheses

Preidentification administrator behaviors. Based on previous work by Eisen et al. (2005), it was expected that prompting participants to take another look at the lineup to see if anyone else looked familiar would lead the majority of participants to shift to a different selection. We also predicted that participants who made more immediate identification decisions (under 12 s) would be less likely to shift when prompted to re-examine the lineup than those who took longer to make their decisions. In addition, we expected that inaccurate witnesses would be more likely to shift when prompted to re-examine the lineup compared with those who had initially made accurate identifications.

Postidentification feedback. In regard to feedback, we expected that confirming feedback would be effective in solidifying influenced identifications. Specifically, we predicted that participants who changed their decision after being prompted to re-examine the lineup, and then had that new selection reinforced with confirming feedback, would be more likely to select the pictures they shifted to when given a second chance to identify the culprit at a later time. Alternatively, when participants shifted and did not get feedback for the altered choice, they would be more likely to revert to their original decisions when given a second chance to identify the culprit at a later time. Finally, we predicted that once feedback was given, accurate witnesses would show similar levels of confidence as inaccurate witnesses regardless of whether they shifted or not.

Method

Participants. Participants were 432 undergraduate students recruited from introductory to psychology courses at California State University, Los Angeles ($F = 74\%$, $M = 26\%$). Their ages ranged between 18–37 years ($M = 19.25$ years, $SD = 1.90$ years). The racial background of the sample was varied, with 70.4% identifying as Hispanic, 17.8% Asian, 4.4% White, 3.7% African American, and the remaining 3.7% reporting that they do not identify with any of these groups.

Procedure.

Overview. Participants viewed a crime video, and 12 min later, were presented with a culprit-present or -absent photo array. After

voicing an identification decision, all participants were prompted to re-examine the lineup. Specifically, participants who selected a picture were told, "Take another look, does anyone else look familiar?" If they did not choose, they were told, "Take another look, does anyone look familiar?" (the word *else* was omitted). Participants who stayed with their initial decisions were prompted a second time to re-examine the lineup. Next, regardless of whether they shifted or stayed with their original decisions, half of the participants were given confirming feedback for the decisions they had settled on, and half were not. Ten minutes after that, participants were directed to a second room to meet with a new experimenter, who presented them with the same lineup and asked them to identify the perpetrator (the final decision). This experimenter also obtained a confidence rating for theses final identification decisions.

Crime video. Participants were taken to a room individually to watch a 90-s video of a carjacking on a 20-in. monitor. The perpetrator was visible in the forefront of the scene on his cell phone for most of the video, as he watched his intended victim buy a parking permit and then return to her car to place it on the dashboard. When she returned to the car, the culprit ran up behind her, produced a handgun, and demanded that she get out of the car. He then fled with her vehicle. The perpetrator was a Latino male, and his face was visible for 22 s of the 90-s video, although there was only an unobstructed full frontal view of his face for 9 of those 22 s. The gun was only presented for a brief time at the end of the video, and was only visible for 2 s.

Instructions. Before watching the video, participants were asked to pay close attention, and were informed that they would be asked to identify the culprit at a later time. Participants were also told that they would receive a modest prize if they could make an accurate identification. This was done to increase participants' incentive to put their best effort into attending to the video and identifying the culprit to simulate the motivation of an actual percipient witness to remembering and identifying a perpetrator if he or she thought they were witnessing a carjacking. The following instructions were read verbatim.

> I am going to show you a video of a staged crime. Please pay close attention. Later on you will be asked to identify the culprit in the video from a lineup. If you can identify the man from the video, you will win a modest prize.

After watching the video, participants returned to the waiting room and were instructed to wait silently until they were called upon for the next phase of the experiment.

Initial identification. Twelve minutes after watching the video, each participant was escorted to a new room to meet with a different experimenter. Participants were read the following instructions verbatim: "I'm going to show you a set of photographs to see if you can identify the culprit from the carjack video you watched. You will get a prize from this box if you can make a correct choice." A six-person photo array was then administered to the participants and response time was recorded. The photo array consisted of six color photos printed out on an 8.5" × 11" sheet of paper that was placed in front of the participants (see below for details of lineup construction). Unbiased instructions (i.e., admonishments) were not used to encourage choosing, and the experimenters were not blind to the position of the culprit.

Influence prompt. After making an identification decision, the lineup administrator prompted participants to re-examine the lineup. Participants who selected a picture were told, "Take another look, does anyone else look familiar?" When participants rejected the lineup, they were told, "Take another look, does anyone look familiar?" (the word *else* was omitted). If participants did not change their decisions, a second prompt was given: "Take one more look and tell me if any of the *other* pictures look familiar to you." If participants rejected the lineup, they were told, "Take one more look and tell me if any of the pictures look familiar to you." (the word *other* was omitted).

Confirming feedback. After the prompting, half the participants received confirming feedback for whatever decisions they settled on, by being told, "That's the guy, you get the prize!" If participants rejected the lineup, they were told, "The guy was not there, you get the prize!" Counterbalancing was accomplished by giving confirming feedback to every other participant who either shifted after one prompt, shifted after two prompts, or did not shift at all.

The final identification: Session 2. Ten minutes after the initial identification/feedback session, participants were guided to a different room to meet with a new experimenter who presented them with the same six-person photo array and were again asked to identify the perpetrator. Before being asked to make their identifications, the participants who received confirming feedback were told: "I see you got the prize . . ." Following their final identifications, all participants were asked to rate their confidence in their decisions on a scale of 0–100.

Lineup construction. A pool of 40 pictures was assembled to select potential fillers to be used in the six-person photo array. Next, the pool was narrowed down to a dozen fillers who were judged by the research group to be most similar to the culprit in terms of age, race, hairstyle, and general appearance. A group of seven research assistants then rated each of the remaining 12 pictures in regard to how similar they were to the culprit's photo on a 0–10 scale. The picture that was judged to be most similar to the culprit was used as the designated suspect, and his picture replaced the culprit in target-absent trials. The next five most highly rated photos were used to create the lineups. Pilot testing of the procedures revealed that participants who viewed the culprit-absent lineup were unlikely to select one of the photos used. This picture was then replaced by the next highest-rated, similar photo. This process of pilot testing continued until a culprit-absent lineup was obtained in which none of the photos were selected less than 10% of the time in multiple trials.

Ultimately, 12 versions of the lineup were assembled: six for culprit-present and six for culprit-absent, with each member rotated to a different position of the six-person photographic lineup. For the culprit-absent lineup, the target was replaced with a picture of the designated suspect, who was rated most similar to the culprit during pilot testing. The 12 lineups were administered in a counterbalanced manner, alternating between culprit-presence and -absence, and also rotating the positioning of the pictures within each condition. The lineups were printed out on 8.5" × 11" sheets of paper and were placed in front of the participants. The experimenters were not blind to the position of the culprit, and as noted above, biased instructions were used to encourage choosing.

Design. The experiment followed a 2 (confirming feedback) × 2 (culprit absent vs. present) between-subjects design, in

which all of the participants were prompted to reconsider their initial identification decisions. The procedures were approved by the Institutional Review Board of California State University, Los Angeles.

Results and Discussion

The results are presented in two general sections. The first section examines behaviors of the lineup administrator that precede documentation of the final identification decision, which could influence decision-making. This section opens with a discussion of shifting rates and describes the results of regression analyses examining factors related to shifting. The second section describes the effects of postidentification feedback on solidifying influenced decisions.

Shifting. As expected, the majority of participants shifted their decisions when prompted to take another look at the photos. Table 1 shows that 69.9% of participants shifted when prompted to re-examine the six-person photo array, and an additional 11.3% shifted when given a second prompt. Table 2 shows the direction of shifting for participants who identified the suspect, identified a filler, or rejected the lineup. The very high rate of shifting in this study may be related to the difficulty of the lineup task. Although 40.6% of participants accurately identified the culprit when he was present, the rate at which the other photos were selected showed that participants viewed at least two of the foils as being highly similar to the culprit (22.1, 17.5, 8.3, 5.5, and 4.6%; No choice 1.4%). When considering participants' second choices (selections made by participants after the prompt to re-examine the lineup), the identifications were fairly evenly distributed across the photos (28.2, 25, 16.7, 13.4, 8.8, and 6.0%; No choice 1.4%). When the culprit was absent, the designated suspect was selected most often (25.1%), and, like the target-present lineups, two of the other fillers were selected more than 20% of the time (24.2, 20.0, 9.3, 7.4, and 5.6%; No choice 8.4%). After being prompted to re-examine the lineup, the designated suspect was still selected most often (27%) and filler selections were fairly evenly distributed (21.0, 17.8, 13.6, 7.9, and 7.5%; No choice 5.1%). These results suggest that when faced with a high-similarity lineup, many witnesses can be influenced to shift away from their initial selections by simply asking them to take another look at the photos.

Regression analyses examining predictors of shifting. Logistic regressions were conducted to examine what factors predicted shifting. Preliminary analyses showed no difference between participants who shifted after one versus two prompts on any of the key variables examined (i.e., first choice accuracy, confidence, response time, gender, or race). Thus, shift was dichotomized (Yes/No) by collapsing the groups who shifted after one versus two prompts. Also, because the culprit was Latino, and more than half of the participants were Latino, race was dichotomized (Latino vs. others) to examine potential cross-race effects. In addition, response time was dichotomized to compare identifications made in 12 s or less to those made after a 12-s delay (see Table 1). A hierarchical logistic regression was conducted with shift as the dependent variable, and culprit-presence, first-choice accuracy, race, response time, and gender as predictors. In the first model, all main effects were entered, and then two-way interactions and three-way interactions were entered in subsequent blocks. For the first model, the predictor model was a significant improvement over the constant-only model, $\chi^2(5, N = 432) = 19.13$, $p = .002$.

Response time. As predicted, participants who made their decisions in less than 12 s were significantly less likely to shift than those who took longer, $B = .71$, $SE = .26$, Wald's $\chi^2(1) = 7.45$, $p = .01$, odds ratio (OR) = .51 (95% confidence interval, CI [0.31, 0.84]). Participants were also significantly more likely to shift when the culprit was present (53.3%) compared with when he was absent (46.7%), $B = -.76$, $SE = .29$, Wald's $\chi^2(1) = 6.99$, $p = .01$, $OR = .47$ (95% CI [0.27, 0.82]). However, both of these main effects were qualified by a significant interaction between response time and culprit-presence, $B = 1.35$, $SE = .62$, Wald's $\chi^2(1) = 4.83$, $p = .03$, $OR = 3.87$ (95% CI [1.16, 12.93]). To break down this significant interaction, we examined the simple main effects of response time in culprit-present and culprit-absent conditions. These analyses revealed that when the culprit was present, participants who initially made their identification decisions in under 12 s were significantly less likely to shift (23.2%) compared with those who took more than 12 s (76.7%), $B = -.674$, $SE = .26$, Wald's $\chi^2(1) = 6.84$, $p < .001$, $OR = 0.51$ (95% CI [0.31, 0.84]). When the culprit was absent, although those who made faster decisions (45.3%) were still less likely to shift than those who took longer (54.7%), the difference was not statistically significant, $B = -.02$, $SE = .33$, Wald's $\chi^2(1) = .002$, $p = .96$, $OR = 0.98$ (95% CI [.51, 1.89]). Overall, these results indicate that although participants who made quick decisions were less likely to shift when asked reconsider the photo array (particularly when the culprit was present), many participants who made quick decisions still shifted when prompted to reconsider the photos. These findings also show that this form of social influence can lead to alterations in decisions, even among witnesses who make quick and presumably more definitive identification decisions.

Accuracy. Contrary to expectations, accurate participants were not less likely to shift ($B = -.28$, $SE = .34$, Wald's $\chi^2(1) = .68$, $p = .41$, $OR = 1.32$ (95% CI [.68, 2.55]). However, this finding was qualified by a significant interaction between accuracy and culprit-presence, $B = 2.88$, $SE = .71$, Wald's $\chi^2(1) = 16.98$, $p < .001$, $OR = .56$ (95% CI [.01, 22]). To break down this significant interaction, we examined the simple main effects of accuracy in culprit-present and culprit-absent conditions. When the culprit was absent, accurate participants who initially made the correct decision to reject the lineup were significantly less likely to shift (44.4%) compared with those who mistakenly identified one of the fillers (79.2%), $B = 2.11$, $SE = .54$, Wald's $\chi^2(1) = 15.23$, $p < .001$, $OR = .12$ (95% CI [0.04, 0.35]). However, when the culprit was present, no difference in shifting was found between those participants who initially made correct identifications (90.9%) and those who mistakenly either rejected the lineup, or selected a filler (82.9%), $B = .77$, $SE = .45$, Wald's $\chi^2(1) = 2.97$, $p = .09$, $OR = 2.16$ (95% CI [0.90, 5.18]).

The low rate of shifting among nonchoosers may have been related to the use of biased instructions. Previous research has found that the use of biased instructions (i.e., not admonishing witnesses that the actual culprit may-or-may-not be present in the photo array), implicitly encourages choosing by providing an inference that the culprit is likely present (Steblay, 1997; see Steblay, Tix, & Benson, 2013 for a recent review). Indeed, Table

Table 1
Rates of Shifting by Response Time, for Accurate and Inaccurate Participants, in Culprit Present and Absent Conditions

	Experiment 1 (N = 432)								
		Time to make the initial decision			Time to make the initial decision			Time to make the initial decision	
	Shift rates after first prompt	Under 12 s	Over 12 s	Shift rates after second prompt	Under 12 s	Over 12 s	Did not shift	Under 12 s	Over 12 s
All participants	69.9% (302/432)	40.8%	59.2%	11.3% (49/432)	44.9%	55.1%	18.8% (81/432)	55.6%	44.4%
First choice correct	67.0% (71/103)	39.4%	60.6%	16.0% (17/106)	35.3%	64.7%	17.0% (18/106)	44.4%	55.6%
Culprit present	76.1% (67/88)	41.8%	58.2%	14.8% (13/88)	46.2%	53.8%	9.1% (8/88)	87.5%	12.5%
Culprit absent	22.2% (4/18)	.0%	100%	22.2% (4/18)	.0%	100%	55.6% (10/18)	10.0%	90.0%
First choice error	70.9% (231/326)	41.2%	58.8%	9.8% (32/326)	50.0%	50.0%	19.3% (63/326)	58.7%	41.3%
Culprit present	76.0% (98/129)	35.7%	64.3%	7.0% (9/129)	22.2%	77.8%	17.1% (22/129)	72.7%	27.3%
Culprit absent	67.5% (133/197)	45.4%	54.6%	11.7% (23/197)	60.9%	39.1%	20.8% (41/197)	51.2%	48.8%

	Experiment 2 (N = 237)					
		Time to make the initial decision			Time to make the initial decision	
	Shift rates	Under 12 s	Over 12 s	Did not shift	Under 12 s	Over 12 s
All participants	76.8% (182/237)	29.7%	70.3%	23.2% (55/237)	44.4%	55.6%
First choice correct	74.5% (35/47)	40.0%	60.0%	25.5% (12/47)	18.2%	81.8%
Culprit present	78.3% (18/23)	55.6%	44.4%	21.7% (5/23)	25.0%	75.0%
Culprit absent	70.8% (17/24)	23.5%	76.5%	29.2% (7/24)	14.3%	85.7%
First choice error	77.4% (147/190)	27.2%	72.8%	22.6% (43/190)	51.2%	48.8%
Culprit present	77.1% (74/96)	24.3%	75.7%	22.9% (22/96)	50.0%	50.0%
Culprit absent	77.7% (73/94)	30.1%	69.9%	22.3% (21/94)	52.4%	47.6%

Table 2
Pattern of Shifting for Culprit/Suspect IDs, Filler Picks, and Rejections, From the Initial Decision Through the Final Identification

Experiment 1 (N = 432)																
Culprit present (n = 217)																
					All shifters-second choice						Final identification decision (Room #2)					
	Initial ID decision		Participants who shifted		Culprit ID		Filler ID		No ID		Culprit ID		Filler ID		No ID	
	%	(n)	%	(n)	%	(n)	%	(n)	%	(n)	%	(n)	%	(n)	%	(n)
Culprit ID	40.6%	(88)	90.9%	(80)	—	—	100%	(80)	0%	(0)	35.2%	(31)	64.8%	(57)	0%	(0)
Filler ID	58.1%	(126)	84.1%	(106)	52.4%	(55)	47.6%	(50)	0%	(0)	26.2%	(33)	73.8%	(93)	0%	(0)
No ID	1.4%	(3)	33.3%	(1)	0%	(0)	100%	(1)	—	—	0%	(0)	66.7%	(2)	33.3%	(1)
Culprit absent (n = 215)																
					All shifters-second choice						Final identification decision (Room #2)					
	ID decision		Initial who shifted		Suspect ID		Participants filler ID		No ID		Suspect ID		Filler ID		No ID	
	%	(n)	%	(n)	%	(n)	%	(n)	%	(n)	%	(n)	%	(n)	%	(n)
Suspect ID[a]	25.1%	(54)	72.2%	(39)	—	—	100%	(39)	0%	(0)	63%	(34)	35.2%	(19)	1.9%	(1)
Filler ID	66.5%	(143)	81.8%	(117)	34.2%	(40)	65%	(76)	.9%	(1)	18.2%	(26)	81.1%	(116)	.7%	(1)
No ID	8.4%	(18)	44.4%	(8)	25%	(2)	75%	(6)	—	—	11.1%	(2)	33.3%	(6)	55.6%	(10)
Experiment 2 (N = 237)																
Culprit present (n = 119)																
					All shifters-second choice						Final identification decision (Room #2)					
	Initial ID decision		Participants who shifted		Culprit ID		Filler ID		No ID		Culprit ID		Filler ID		No ID	
	%	(n)	%	(n)	%	(n)	%	(n)	%	(n)	%	(n)	%	(n)	%	(n)
Culprit ID	19.3%	(23)	78.3%	(18)	—	—	100%	(18)	0%	(0)	65.2%	(15)	34.8%	(8)	0%	(0)
Filler ID	64.7%	(77)	85.7%	(66)	30.3%	(20)	68.2%	(45)	1.5%	(1)	14.3%	(11)	81.8%	(63)	3.9%	(3)
No ID	16%	(19)	42.1%	(8)	12.5%	(1)	87.5%	(7)	—	—	10.5%	(2)	31.6%	(6)	57.9%	(11)
Culprit absent (n = 118)																
					All shifters-second choice						Final identification decision (Room #2)					
	Initial ID decision		Participants who shifted		Suspect ID		Filler ID		No ID		Suspect ID		Filler ID		No ID	
	%	(n)	%	(n)	%	(n)	%	(n)	%	(n)	%	(n)	%	(n)	%	(n)
Suspect ID	12.7%	(15)	80%	(12)		—	100%	(12)	0%	(0)	100%	(15)	0%	(0)	0%	(0)
Filler ID	66.9%	(79)	77.2%	(61)	32.8%	(20)	67.2%	(41)	0%	(0)	0%	(0)	100%	(79)	0%	(0)
No ID	20.3%	(24)	70.8%	(17)	17.6%	(3)	82.4%	(14)	—	—	0%	(0)	62.5%	(15)	37.5%	(9)

Note. Suspect ID[a] = nominated suspect ID.

2 shows that less than 10% of participants correctly rejected the photo array when the culprit was absent, and less than 2% did not choose when he was present. It is possible that those participants who rejected the lineup, despite the implied inference that the culprit was likely present in the group, represented a more discerning group of rejecters who were not inclined to choose despite this inference, and were, therefore, more resistant to shifting when prompted to reconsider their decision. Perhaps, if the participants were given unbiased instructions, we would have observed more shifting among nonchoosers. To address this issue, a second experiment was conducted in which participants were admonished that the actual culprit may or may not be present before viewing the first photo array.

Examining the effect of confirming feedback on solidifying influenced decisions. This next section examines the effect of confirming feedback on solidifying influenced decisions. In this section we discuss how feedback affected the likelihood that participants would commit to their influenced decisions and select the picture they shifted to when offered a second chance to make an identification.

The final identification session. Once participants settled on their identification decisions (after the influence prompts), half

were given confirming feedback. Then, after a 12-min delay, participants were escorted to a different room to meet with a new experimenter who showed them a copy of the same photo array and asked them to select the man they believed was the culprit in the video. We hypothesized that shifters who received confirming feedback would be more likely to stay with the photos they shifted to when asked to identify the culprit in the final session.

The shifters. Shifters fell into one of three categories: (a) *Shift commit* – Those participants who shifted when prompted to take another look at the photos, and then *selected the pictures they shifted to* when asked to identify the thief in the second lineup session; (b) *Shift revert* – Those who shifted when prompted to take another look at the photos, but then *reverted back to their original selection* (the decision made before shifting) when asked to identify the thief in the second lineup session; and (c) *Shift change* – Those who shifted when prompted to take another look at the photos, and then made a third choice when asked to identify the thief in the second lineup session (not the original choices or the choices they were steered to).

A 2 (confirming feedback) × 3 (shift type: shift commit, shift revert, shift change) χ^2 test was conducted to see if participants who received confirming feedback were more likely to stay with the choices they shifted to when shown the photo array a second time. As predicted, participants who shifted to a new picture when prompted to re-examine the lineup and then received confirming feedback for that new choice, were substantially more likely to select the pictures they shifted to in the final session (78%) compared with shifters who did not get confirming feedback (28.7%) $\chi^2(2, 349) = 89.93$, $p < .001$ (see Table 3). Also, as expected, the majority of participants who shifted when prompted to re-examine the lineup but did *not* get confirming feedback for their second choices, reverted back to their original decisions (56.2%).

Nonshifters. We also examined the consistency of identification decisions by participants who did not shift when prompted to re-examine the lineup (nonshifters). Table 3 shows that nonshifters were very consistent in their selections when shown the lineup again in the final session; so much so, that the lack of variance in their performances precluded formal statistical analyses. Indeed, 100% of the nonshifters who received confirming feedback chose the same pictures when asked to make a selection in the final session, and 90% of the shifters who received no feedback also remained consistent.

Taken together, these data show that for participants who changed their decisions when prompted to re-examine the lineup, confirming feedback appeared to be very effective in solidifying the selections that they shifted to. Of course, it is not only important to understand how often the participants stayed with the decisions they shifted to, but also how confident they were in those influenced decisions.

Confidence in the final decisions. It was predicted that shifters who received confirming feedback would be more confident in their identification of the photos they shifted to. To test this prediction a 2 (Confirming feedback) × 2 (Final choice accuracy) × 2 (Shift vs. No shift) analysis of variance (ANOVA) was conducted to examine the relative effects of confirming feedback, accuracy, and shifting on participants' confidence in their final selections made in the second session. These analyses revealed a predicted main effect for feedback in boosting confidence $F(1, 431) = 21.32$, $p < .001$, $d = 0.75$ (95% CI [10.51, 22.28]). A main effect for shifting was also revealed, as participants who shifted off their original choices were less confident in their ultimate decision,

Table 3
Final Identification Decisions for Those Who Shifted and Either (1) Committed to Their Shifted Decision, (2) Reverted to Their Original Decision, or (3) Changed Their Decision to a New Photo Entirely; and for Those Who Did Not Shift and Either (1) Stayed Consistent in All of Their Decisions, or (2) Changed Their Decision to a New Photo (Across Confirming Feedback Conditions)

Experiment 1 ($N = 432$)

	Final decisions for all shifters						Final decisions for all nonshifters			
	Commit to the photo they shifted to		Revert to the original photo		Change to select a new photo		Consistent		Change	
	%	(*n*)	%	(*n*)	%	(*n*)	%	(*n*)	%	(*n*)
All participants	53.0%	(186)	37.6%	(132)	8.8%	(31)	95.1%	(77)	4.9%	(4)
Confirming feedback	78.0%	(135)	18.5%	(32)	2.3%	(4)	100%	(41)	.0%	(0)
No feedback	28.7%	(51)	56.2%	(100)	15.2%	(27)	90.0%	(36)	10.0%	(4)

Experiment 2 ($N = 237$)

	Final decisions for all shifters						Final decisions for all nonshifters			
	Commit to the photo they shifted to		Revert to the original photo		Change to select a new photo		Consistent		Change	
	%	(*n*)	%	(*n*)	%	(*n*)	%	(*n*)	%	(*n*)
All participants	48.9%	(89)	39.6%	(72)	11.5%	(21)	89.1%	(49)	10.9%	(6)
Confirming feedback	70.0%	(63)	26.7%	(24)	3.3%	(3)	89.3%	(25)	10.7%	(3)
No feedback	28.3%	(26)	52.2%	(48)	19.6%	(18)	88.9%	(24)	11.1%	(3)

Note. Two participants were missing data regarding their second identifications, and could not be coded into the proper shift subgroups. They were included in the *total* numbers.

$F(1, 431) = 27.84$, $p < .001$, $d = 0.55$ (95% CI [6.86, 18.63]). In addition, a main effect for final choice accuracy was revealed, as those participants who were accurate in their final selections were more confident $F(1, 431) = 4.52$, $p < .03$, $d = 0.19$ (95% CI [0.48, 12.25]). However, each of these main effects were qualified by a significant three-way interaction between confirming feedback, shift, and final choice accuracy, $F(1, 431) = 4.23$, $p = .04$, $\eta^2 = .01$. Although the confirming feedback boosted confidence across all conditions, the effect was different for accurate and inaccurate shifters and nonshifters.

Confidence of shifters. For participants who shifted to another choice when prompted to reconsider the lineup, feedback had a large effect on confidence in the witnesses' final decision, regardless of whether that identification was accurate or not. When considering only participants who shifted from an error to an accurate identification decision, those who got confirming feedback were substantially more confident in their final selections ($M = 88.67$, $SD = 10.47$) than those who did not get feedback ($M = 64.78$, $SD = 22.98$), $F(1, 56) = 22.36$, $p < .001$, $d = 1.10$ (95% CI [69.11, 80.92]). Similarly, for participants who shifted to inaccurate choices, those who got confirming feedback were significantly more confident in their erroneous final decisions ($M = 80.53$, $SD = 20.40$) than those who did not get feedback ($M = 67.16$, $SD = 21.60$), $F(1, 294) = 29.80$, $p < .001$, $d = 1.10$ (95% CI [71.36, 76.42]).

Confidence of nonshifters. When considering participants who did *not* shift when prompted to re-examine the lineup, feedback had a differential effect on accurate versus inaccurate participants. Table 4 shows that accurate participants who resisted the influence and did not shift when prompted to re-examine the lineup were quite confident in their final selections regardless of whether they received confirming feedback ($M = 96.50$, $SD = 6.69$), or not ($M = 89.40$, $SD = 16.74$), $F(1, 20) = 1.55$, $p = .23$, $d = 0.56$ (95% CI [77.42, 101.38]). In contrast, when participants made a wrong decision and then stuck with it, feedback had a large effect, as inaccurate participants who received confirming feedback were far more confident ($M = 93.71$, $SD = 11.94$) than those who did not ($M = 72.50$, $SD = 24.41$), $F(1, 60) = 18.75$, $p < .001$, $d = 1.10$ (95% CI [63.3, 81.6]).

These findings are consistent with predictions made by Clark et al. (2013) who postulated that influenced decisions are likely be asserted with lower confidence. Indeed, in this experiment, shifted identification decisions that were not reinforced, were generally made with low levels of confidence regardless of accuracy. That said, the data from this experiment showed that confidence in the influenced choices can be bolstered with confirming feedback, and when this happens, the influenced decisions are generally asserted with a high degree of confidence and look very much like decisions that were not influenced.

Summary and limitations. As predicted, simply asking witnesses to re-examine the photo array resulted in a majority of participants shifting their decisions; 69.9% after one prompt and an additional 11.3% after two prompts. Also, as predicted, reinforcement was quite effective in solidifying the altered decisions, as 78% of participants who shifted when prompted to re-examine the lineup selected the picture they shifted to when asked to identify the culprit on a second occasion, and asserted these reinforced altered decisions with high degrees of confidence. Also, as predicted, participants who made more immediate decisions (under 12 s) were less likely to shift when prompted to re-examine the lineup. However, contrary to expectations, accurate participants were just as likely to shift as their inaccurate counterparts. Taken together, these results suggest that quick and definitive decisions are less likely to be affected by the type of influence prompt used in this study, independent of accuracy.

Limitations. Two important limitations should be highlighted. First, it is possible that the confirming feedback effect could have been affected by an artifact of the procedures. For example, when participants came into the last session and were shown the photo array a second time to make their final identification, the experimenter told participants in the feedback condition, "I see you got the prize." This instruction essentially informed participants that the new lineup administrator had knowledge of their previous decisions and that this choice was purportedly correct. This state-

Table 4
Confidence in Accurate and Inaccurate Final Decisions for Shifters and Nonshifters

	Shifters						Nonshifters					
Experiment 1 ($N = 432$)	Confirming feedback		No feedback		All shifters		Confirming feedback		No feedback		All nonshifters	
	($n = 172$)		($n = 178$)		($n = 350$)		($n = 41$)		($n = 40$)		($n = 81$)	
Accurate	88.67	(10.47)	64.78	(22.98)	75.02	(22.04)	96.50	(6.69)	89.40	(16.74)	92.95	(12.93)
Inaccurate	80.53	(20.40)	67.16	(21.60)	73.89	(22.01)	93.71	(11.94)	72.50	(24.41)	83.28	(21.76)
Experiment 2 ($N = 237$)	Confirming feedback		No feedback		All shifters		Confirming feedback		No feedback		All nonshifters	
	($n = 89$)		($n = 91$)		($n = 180$)		($n = 28$)		($n = 27$)		($n = 55$)	
Accurate	79.00	(14.66)	68.75	(23.27)	74.44	(19.29)	95.00	(8.66)	62.50	(13.33)	83.18	(19.16)
Inaccurate	84.55	(14.14)	64.41	(19.46)	74.15	(19.81)	93.05	(10.63)	72.65	(21.65)	82.39	(19.96)

ment may have served to reinforce the participants' choices over and above the initial confirming feedback from the previous session. To address this issue, in the second experiment, when participants came to the final session, the new experimenter did not express any prior knowledge of who they had originally selected, or if they received confirmation of any sort.

Second, as noted earlier, the use of biased instructions appears to have resulted in very few participants rejecting the culprit-absent lineup, and those few participants who accurately rejected the lineup were unlikely to shift when prompted to reconsider their decisions. Indeed, encouraging more participants to make a choice may have limited our ability to study the effects of the influence prompt on choosing. Moreover, because it is policy in most jurisdictions across the United States and United Kingdom to admonish witnesses before viewing a lineup with some form of the may-or-may-not be there instruction, not using an admonition affected the ecological validity of the procedures. To address this issue, a second experiment was conducted in which all participants were admonished that the actual culprit may-or-may-not be present when they viewed the first photo array.

Experiment 2

Method

Participants. Participants were 237 undergraduate students enrolled in an introductory psychology course at California State University, Los Angeles (M = 25%, F = 75%). Ages ranged between 18–27 years (M = 19.32, SD = 1.51). The racial distribution of participants was 80.2% Hispanic, 10.1% Asian, 5.1% African American, and 1.7% White, with the remaining 3.0% not identifying with any of the above groups.

Procedure. Procedures were identical to those used in Experiment 1 with the following exceptions. Unlike Experiment 1, unbiased instructions were used. Specifically, participants were read the following admonition: "This group of photos may or may not contain a picture of the person who committed the crime. Pay no attention to markings or numbers that may appear on the photos or any other differences in the type of style of photograph." Also, in the current experiment, the lineup administrator in the second session did not reveal that they knew anything about the participants' initial choices, and simply asked, "Can you tell me which one of these is the man that you saw in the video with the gun who stole the car?" Finally, in Experiment 1, participants were given two prompts to take another look at the photos to see if they would shift to another picture. Because the second prompt did not result in a substantial increase in shifting, only one prompt was used in this second experiment.

Hypotheses. We expected to replicate the findings of Experiment 1, showing that the majority of participants would shift when prompted to reconsider their initial identifications regardless of the accuracy of that initial decision, and that shifting would be higher when the identification decisions were made more slowly. Also, it was predicted that shifters who received confirming feedback would be more likely than those who did not get feedback to commit to their altered decisions and select the picture they were steered to in the second session when they were shown the photo array for a second time. We also expected that the use of unbiased instructions would create a larger group of nonchoosers. As a result, we expected that nonchoosers in the culprit-absent conditions would no longer be less likely to shift. Also, in this second experiment, participants in the final session were not given any information to alert them that the new lineup administrator knew anything about their previous decisions. We did not expect that removing this confound would change the rate at which participants stayed with altered selections that were reinforced.

Results and Discussion

Results of this experiment replicated the findings of Experiment 1, showing that prompting participants to re-examine the lineup to see if anyone else looked familiar after voicing their decisions resulted in the majority of participants shifting their choices. Table 1 shows that the shift rate in this second experiment was even higher than the shift rate observed after one prompt in Experiment 1 (Experiment 1, 69.9% vs. Experiment 2, 76.8%).

Accuracy and shifting. As expected, the addition of the admonition led to a decrease in choosing overall (Experiment 1, 95.1% vs. Experiment 2, 81.9%). In this second experiment, accuracy in culprit-present conditions was lower (Experiment 1, 40.1% vs. Experiment 2, 20.2%), and correct rejections when the culprit was absent were higher (Experiment 1, 8.4% vs. Experiment 2, 19.5%). The fact that accurate identifications dropped even more than correct rejections was likely related to the difficulty of the identification test. Indeed, previous research has demonstrated that the may-or-may-not instruction has been found to be far less effective in reducing choosing in target-absent conditions when the foils were high in similarity to the culprit in lineups (Brewer & Wells, 2006) and if the innocent suspect was highly similar to the culprit in showups (Eisen, Smith, Olaguez, & Skerritt-Perta, 2017).

Regression analyses examining predictors of shifting. A hierarchical logistic regression was conducted with shift as the dependent variable, and culprit-presence, first-choice accuracy, race, response time, and gender as predictors. In the first block, all main effects were entered, then two-way interactions and three-way interactions were examined in subsequent blocks.

Response time and accuracy. Accuracy did not directly predict shifting, $B = -.03$, $SE = .39$, Wald's $\chi^2(1) = .01$, $p = .93$, $OR = .97$ (95% CI [0.45, 2.09]), but response time did, as participants who made their identification decisions in under 12 s were significantly less likely to shift (30.8%), than those who took longer than 12 s (81.0%), $B = .62$, $SE = .32$, Wald's $\chi^2(1) = 3.80$, $p = .05$, $OR = 1.87$, (95% CI [0.97, 1.99]). However, this effect was qualified by a significant interaction between response time and accuracy, $B = -2.12$, $SE = .94$, Wald's $\chi^2(1) = 5.16$, $p = .02$, $OR = .12$ (95% CI [0.19, 0.75]). To break down this significant interaction, we examined the simple main effects of response time for participants who had initially made accurate versus inaccurate identification decisions. These analyses revealed that the effect for response time was larger for those who initially made inaccurate compared with accurate decisions. For those who initially made inaccurate identification decisions, participants who took less than 12 s to make their decisions were significantly less likely to shift (27.2%) than those who took longer to make their decisions (72.8%), $B = -.98$, $SE = .36$, Wald's $\chi^2(1) = 7.65$, $p = .01$, $OR = 3.74$ (95% CI [.19, .75]). For accurate witnesses, those who made quick decisions were still significantly less likely to shift (40%) than those who took longer (60%), but the difference

was not as large, $B = 1.72$, $SE = .88$, Wald's $\chi^2(1) = 3.87$, $p = .05$, $OR = 5.61$ (95% CI [1.01, 31.23]).

These results replicate the findings of Experiment 1 showing that although participants who made quick decisions were generally less likely to shift when asked reconsider the photo array, many participants who made quick decisions did change their decisions when prompted to reconsider the photos. These findings show that this form of social influence can lead to alterations in decisions even among witnesses who make quicker and presumably more definitive decisions.

The admonition, culprit-presence, and shifting. We believed that the low rate of shifting in the culprit-absent condition observed in Experiment 1 was related to the use of biased instructions, and expected that when an admonition was used, culprit-presence would no longer predict shifting. As expected, in this second Experiment, no main effect for culprit-presence was found, $B = -.10$, $SE = .31$, Wald's $\chi^2(1) = .10$, $p = .76$, $OR = 1.10$ (95% CI [.57, 2.04]). It is worth noting that the overall effect for shifting found in Experiment 1 was replicated in this effort, as the shift rate in the culprit-present and -absent conditions were generally comparable across the two experiments (Experiment 1 CP = 86.2%, CA = 76.3%; Experiment 2 CP = 77.3%, CA = 76.3%).

The final identification: Session 2. As done in Experiment 1, 10 min after making their initial identifications, participants were escorted to a different room to meet with a new experimenter, who showed them a copy of the same photo array and asked them to select the man who they believed was the culprit. In this second experiment, the lineup administrator in the second session did not reveal any knowledge of the participant's first choice when obtaining this final identification decision.

The shifters. A 2 (Feedback vs. no feedback) × 2 (shift commit vs. shift revert) χ^2 test was conducted to see if participants who received confirming feedback were more likely to commit to their shifted selections and choose that same photo when shown the photo array in a later session. As predicted, results replicated the findings of Experiment 1 and showed that shifters who received confirming feedback were substantially more likely to select the picture they shifted to when asked to identify the culprit in the final session (70%) than those who did not get feedback (28%), $\chi^2(2, 89) = 34.08$, $p < .001$. Also, as expected, those shifters who did not get the feedback were likely to revert to their original choices (52.2%). Regarding accuracy, the rate of reverting was greater when the first choice was accurate versus inaccurate.

Nonshifters. As found in Experiment 1, participants who did not shift when prompted to take another look at the photos were very consistent when asked to make a final identification in the second session, regardless of feedback. 89.1% of nonshifters remained consistent in their decisions regardless of whether they received feedback or not.

Confidence. A 2 (Confirming feedback) × 2 (Shift vs. no shift) × 2 (Final choice accuracy correct/incorrect) ANOVA was conducted to examine the relative effects of receiving confirming feedback, final choice accuracy, and shifting on participants' confidence. As predicted, a significant main effect of confirming feedback was revealed, as participants who received confirming feedback were more confident in their final selections ($M = 85.99$, $SD = 14.02$) than participants who did not get feedback ($M = 66.39$, $SD = 19.91$), $F(1, 235) = 35.43$, $p < .001$, $d = 1.14$, 95% CI [13.91, 27.67]. However, as found in Experiment 1, participants who were accurate in their final decisions were not more confident ($M = 76.97$, $SD = 19.41$) than their inaccurate counterparts ($M = 75.99$, $SD = 20.09$), $F(1, 235) = .46$, $p = .50$, $d = .05$, 95% CI [−4.51, 9.20]. Also, as found in Experiment 1, shifters showed lower confidence overall ($M = 74.19$, $SD = 19.68$) compared with nonshifters ($M = 82.54$, $SD = 19.63$), but this effect did not reach traditional levels of statistical significance, $F(1, 235) = 3.62$, $p = .06$, $d = .53$, 95% CI [−.24, 13.48].

Table 3 shows that among shifters who got confirming feedback for that altered decision, participants who were mistaken in their final identification decisions looked very much like those who were accurate (Accurate = 79.00 vs. Inaccurate = 84.55). This pattern of results matches the findings of previous feedback studies showing that confirming feedback given to both accurate and mistaken witnesses makes these witnesses virtually indistinguishable (Smalarz & Wells, 2014a).

Summary. The results of this second experiment replicate the effect for shifting observed in Experiment 1, showing that simply asking individuals to re-examine the lineup altered the identification decisions of a large majority of participants regardless of the accuracy of their initial decisions. These results also replicate the effect of response time, as participants who made quicker decisions were less likely to be influenced to shift their decisions than those who took more than 12 s to make their choices.

Also, as predicted, participants who shifted when prompted to reconsider their decisions and then received confirming feedback were more likely to choose the picture they shifted to when given another chance to make an identification in the second session. This replicates the results of Experiment 1 and shows that changing the procedures so-that the second lineup administrator did not show any knowledge of the participants' previous choices (by not saying "I see you got the prize"), did not appear to affect the likelihood of participants committing to their reinforced decisions. Also, as found in Experiment 1, when participants did not get confirming feedback for their altered choices, they were more likely to revert to their original decisions, and the reversion rate was highest among those whose initial decisions before shifting were accurate.

General Discussion

These experiments were designed to examine whether asking witnesses to take another look at the lineup after they had voiced their identification decisions would alter their choices, and if confirming feedback could then be used to solidify the selections they shifted to. Results revealed that in both experiments, prompting participants to re-examine the photo array after they had already voiced their identification decisions consistently led the majority of participants to change their decisions. These results have profound implications for what can happen when double-blind procedures are not used and show that simply suggesting that witnesses re-examine the photos after they have already provided a response (by either choosing a picture or rejecting the lineup), has the very real potential of inducing doubt in their initial choices and can lead many people to shift their identification decisions.

The results of this study build on the work of Clark et al. (2013) who showed that witnesses who made tentative filler identifications could be steered away from those decisions when the lineup administrator responded to their choices by questioning if they

thought the picture they selected *looked like* the culprit or *was* the culprit. The current experiments replicated this effect using a different version of this influence prompt and added to this work in a couple of ways. First, Clark and his colleagues showed that the influence prompt used in that experiment was potent enough to alter the decisions of many participants who made tentative filler identifications (i.e., filler choices made after some hesitation and expressed with the use of hedge-words). The current study builds on this work by showing that the influence prompt used in this study led many people to shift, regardless of whether they were making filler identifications or positive suspect identifications. Moreover, the current findings show that this type of influence prompt can alter decision-making among many witnesses who expressed their decisions without hesitation (i.e., under 12 s).

Shift and Stick: Solidifying Influenced Decisions With Confirming Feedback

In both experiments, over 60% of participants who shifted their identification decisions when asked to reconsider the lineup, and then received confirming feedback for those altered decisions, selected the picture they shifted to when given the opportunity to identify the culprit again at a later time. Because we used the same photo array in the second session (with the photos in the same positions), it is not clear whether sticking with the reinforced choice in the second session provided tangible evidence of memory change. Indeed, this could simply be evidence of a commitment effect (Deffenbacher, Bornstein, & Penrod, 2006; Dysart, Lindsay, Hammond, & Dupuis, 2001), as participants may have come to believe that the photo they shifted to was the correct choice, and then looked to find that photo in the same position in the second session. From an applied perspective, we do not believe this is an important distinction. Indeed, in an actual case, if a witness gets confirming feedback for their selection of an innocent suspect, and then comes to believe that this is the actual culprit, they are likely to commit to that choice regardless of memory change, particularly in the short time frame we are working with here. Moreover, even if the identification decision is initially driven purely by administrator influence, when a witness truly comes to believe that the photo they shifted to is *the actual culprit*, memory change will likely follow. Indeed, there is reason to believe that this type of memory change can happen quite rapidly. Previous research by Smalarz and Wells (2014b) showed that confirming feedback of a mistaken identification can impair memory for the culprit in the short-term, as evidenced by the fact that confirming feedback reduced the ability of the witness to identify the actual culprit on a subsequent memory test.

Influence, Confidence, Feedback, and the Importance of Double-Blind Procedures

In their original study examining witness steering, Greathouse and Kovera (2009) observed that low-confidence identification decisions are more likely to be influenced than high-confidence decisions. Clark et al. (2013) proposed that because identifications made with low confidence are more likely to be influenced by various types of administrator behaviors, decisions that are the result of influence will likely be made with lower confidence. The findings from the current study provide some support for this proposition, as participants who shifted and did not have their altered decisions reinforced with confirming feedback were generally less confident in their influenced decisions regardless of accuracy, and were more likely to revert back to their original choices when offered a second opportunity to make an identification. However, when the influenced decisions were reinforced with confirming feedback, differences in confidence were largely eliminated, and as such, the influenced witnesses were virtually indistinguishable from those who did not shift when prompted to re-examine the lineup.

Clark et al. (2013) minimize concerns about administrator influence and argue that even when influence does occur, the influenced identification decisions are more likely to be made with lower confidence, and as a result, the triers of fact would likely give influenced decisions less weight. Specifically, in referring to how influenced decisions might affect a legal case, Clark and his colleagues proposed that, "The lower confidence could, at least in principle, raise an appropriate concern for the trial court about the reliability (and hence admissibility), of the additional suspect identifications generated through suggestive influence" (Clark et al., 2013, p. 164). Although these authors acknowledge the possibility that confidence in the influenced decisions could be bolstered though feedback, they downplay this concern, and assert that accurate documentation of lower confidence decisions should provide protection against the adverse effects of administrator influence. Based on this argument, these investigators caution against pressing police agencies to alter their procedures due concerns among eyewitness researchers related to administrator influence.

Research in this area suggests that in some cases, nonblind administrators will not only use tactics that have the strong potential to influence witness identification decisions, but also display behaviors that can bolster confidence (Charman & Quiroz, 2016; Garrioch & Brimacombe, 2001). Charman and Quiroz (2016) observed that nonblind administrators frequently exhibit subtle behaviors that could be interpreted by witnesses as confirmatory at the time the identification was made, like smiling when the correct picture is chosen (also see Garrioch & Brimacombe, 2001). When this happens, if the administrator's behavior is perceived by the witness as confirming the correctness of their decision, then accurate documentation of confidence at the time of the decision will not provide any protection against the adverse effects of influence. Similarly, in other cases, poorly trained and/or less conscientious administrators may communicate confirmation in a not so subtle manner at the time the witness makes their selection. Again, when this happens, properly documenting the witness's confidence in their decision would obviously not be helpful in limiting the potential damage done when the identification decision was influenced. Beyond that, as noted earlier, even if the administrator does not reinforce the witness's decision in some manner at the time the identification was made, in actual cases, confirming feedback will inevitably come at some point, often in the form of a communication from the authorities that they are prosecuting the case and may need the witness to testify at trial. In this instance, judges and jurors will often be faced with a very confident witness at trial, who feels much better about their identification after learning that the police and prosecutor firmly believe in the defendant's guilt. Even when the initial identification is asserted with a modest degree of confidence, and this tentative decision is well-

documented at the time it was made, jurors will often be faced with very powerful and persuasive trial testimony from a witness who is now 110% confident in their belief that the person on trial is in fact the culprit. Moreover, because confirming feedback affects retrospective testimonial judgments related to a witness's viewing experience and ease of making the identification itself (Wells & Bradfield, 1998), the testimony of a witness who received confirming feedback is likely to be judged as quite credible and persuasive (Douglass, Neuschatz, Imrich, & Wilkinson, 2010).

Response Time and Accuracy

Contrary to expectations, accurate participants were equally likely to shift as their inaccurate counterparts when prompted to re-examine the lineup. However, in both experiments, participants who made quicker and presumably more definitive decisions were less likely to shift when prompted to re-examine the lineup. This latter finding suggests that under the conditions examined, accuracy was less important than quick decision-making in regard to predicting how easily someone can be influenced to change their identification decision. The lack of findings regarding accuracy are notable and may be related to the difficulty of the identification test used in this study. Indeed, there is reason to believe that if participants either got a better view of the culprit and/or were presented with an easier lineup, then accurate witnesses would not be as easily influenced to shift.

Match-to-Memory and Witness Susceptibility to Influence

Evidence from studies examining the postidentification feedback effect suggest that witnesses are easier to influence when match-to-memory is weak (e.g., Bradfield, Wells, & Olson, 2002). Bradfield et al. (2002) found that confirming feedback increased confidence in innocent-suspect identifications to a greater extent when match-to-memory was weak than in culprit identifications when match-to-memory is presumably stronger. Charman and Wells (2012) reported very similar results using the same paradigm and argued that confirming and disconfirming feedback will have a greater effect on witnesses when their ecphoric experience is weak rather than strong. Charman and Wells proposed that these results could be explained by the cues-based inference hypothesis, which predicts that when a witness's ecphoric experience is strong, they will rely more on internal cues related to their recognition of the culprit to make an identification. However, when ecphory is weak, then witnesses will be more reliant on external cues to guide their judgments, like feedback from the lineup administrator.

Findings from the current study suggest that the difficulty of the identification test created conditions in which participants were more likely to rely on external cues to make their decisions. These conditions likely maximized the suggestive effects of both the influence prompt and the confirming feedback, creating a general vulnerability to suggestion. This account fits well with arguments made by Wells and Quinlivan (2009) who argued that suggestiveness increases both false identifications and the confidence witnesses express in those identifications. In essence, participants who found the lineup task to be more difficult were simply more open to external suggestions to guide their judgments, whether it was a suggestion to reconsider their initial identification decision, or confirming feedback suggesting that the choice they settled on was accurate. It is likely that the effect would be attenuated under conditions when match-to-memory is stronger and/or the lineup tasks are not as difficult. Future studies can examine the boundary conditions of this effect.

Second Viewings Can Lead to Shifting Even Without Personalized Suggestions

In the current study, personalized communications from the lineup administrator, suggesting that participants should examine the lineup again after they had already voiced their identification decisions, had a clear negative impact on witness performance. There is also some evidence from the eyewitness literature that a simple computer prompt inviting participants to take another look at the lineup can increase choosing and lead to a shift in decision-making, even without any personalized suggestion or implied feedback. Steblay, Dietrich, Ryan, Raczynski, and James (2011) had participants watch a crime video and then were given either culprit-present or—absent sequential lineups. The task was computer-generated and once the photos were viewed the computer program randomly generated one of three prompts, either asking the participants if they would like to see the lineup again, telling them the pictures were going to be shown again, or thanking them for their participation and ending the procedure. Steblay and her colleagues reported that just over a third of the participants who voluntarily accepted the computer-generated invitation to view the photos again changed their identification decisions (Experiment 1, 36%, Experiment 2, 33%) and the majority of those participants who shifted, changed their choice to a false identification of a foil. Steblay and her colleagues coined the term *the sequential lap effect* to describe how witnesses who elect to view a sequential lineup a second time show an increase in errors. Of course, in Steblay's experiments the instructions were computer-generated, so there was little reason for the participants to read anything into this message regarding the accuracy of their initial decisions or likelihood that the culprit was or was not present. However, in an actual case when a lineup administrator responds to a witness's choice by asking her to take another look at the photos, the witness is likely to view this communication as an important cue from a credible source who has inside information about the investigation, suggesting that the actual culprit is likely present and that they should keep trying in an effort to figure out who it is.

Criterion Shift Versus Redistribution of Selections

Cognitively based models of eyewitness decision-making that do not account for social influence would predict that the type of influence prompt used in this study should lead to a criterion shift and increase the likelihood that someone will be identified (Clark et al. 2009, 2013). In the current study, the influence prompt used was more likely to lead to a redistribution of selections among participants who were already inclined to choose than an increase in choosing overall. That said, this effect was clearest when biased instructions were used. In Experiment 1, choosers were substantially more likely to shift than nonchoosers in both culprit-present and -absent conditions, but in Experiment 2 this pattern was only evident in the culprit-present conditions. Overall, these results are

consistent with predictions made by Kovera and Evelo (2017) and Charman and Quiroz (2016) who have argued that steering behaviors of nonblind examiners are more likely to result in a redistribution of choices among those who are inclined to choose, rather than a simple criterion shift that would increase choosing. That said, we did not have a no-influence condition in either of the experiments, so we cannot make clear causal inferences about this pattern of results. Moreover, it is important to note that in the current study, the experimenters were not motivated to steer participants toward or away from any particular picture, so we could not directly examine a filler-to-suspect shift.

Conclusions and Limitations

Results of these experiments indicate that simply prompting witnesses to re-examine a photographic lineup after they had already voiced their identification decisions can have a profound effect on performance. Moreover, these data show that once a witness has been influenced to choose a different picture, confirming feedback can be used to solidify this altered choice. Indeed, when confirming feedback is administered, any advantages for initial accuracy are wiped out, and it becomes very difficult to distinguish those participants who initially selected the correct picture, from those who were guided to shift away from their initial decisions.

As noted earlier, the difficulty of the identification test may have played a role in the very high shifting rates observed across these two experiments. Indeed, future studies should examine shifting under circumstances when match-to-memory is stronger and/or the identification test is easier. One would imagine that increasing and/or decreasing the ease of the task could lead to a predictable variation in the number of participants who would be influenced to shift, with participants being more likely to shift under poorer viewing conditions or when faced with a more difficult lineup, and witnesses being less likely to shift under more optimal viewing conditions and/or when faced with an easier low-similarity lineup. That said, the difficult conditions in these experiments likely match the common experience of many witnesses in actual cases who are faced with poor viewing conditions and do not recall the perpetrator's face well, and are then presented with several similar faces in a photo array. Indeed, in actual cases, exposure to the culprit can vary greatly, and it is not uncommon for witnesses to be asked to make identifications after weeks, or even months—sometimes based on a partial and/or obstructed view made during a chaotic moment.

The results from these experiments add to the growing number of studies showing the importance of using double-blind controls when administering photographic lineups. These findings also highlight the importance of recording the procedures to make a transparent record of the interaction between the lineup administrator and the witness. Indeed, even if double-blind controls are used, there is still the potential that a poorly trained and/or ill-informed administrator might respond to a rejection of the lineup by asking the witness if anyone looked familiar. If the procedures are not recorded, there is no way to know what actions on the part of the lineup administrator, if any, may have contributed to the witness's final identification decision, or if the decision was reinforced in some manner once it was made. It is worth noting that the use of video recorded double-blind procedures would not only help prevent misidentifications but will also provide more potent prosecutorial eyewitness evidence that cannot be easily challenged in court.

References

Bradfield, A. L., Wells, G. L., & Olson, E. A. (2002). The damaging effect of confirming feedback on the relation between eyewitness certainty and identification accuracy. *Journal of Applied Psychology, 87,* 112–120. http://dx.doi.org/10.1037/0021-9010.87.1.112

Brewer, N., & Wells, G. L. (2006). The confidence-accuracy relationship in eyewitness identification: Effects of lineup instructions, foil similarity, and target-absent base rates. *Journal of Experimental Psychology: Applied, 12,* 11–30. http://dx.doi.org/10.1037/1076-898X.12.1.11

Charman, S. D., & Quiroz, V. (2016). Blind sequential lineup administration reduces both false identifications and confidence in those false identifications. *Law and Human Behavior, 40,* 477–487. http://dx.doi.org/10.1037/lhb0000197

Charman, S. D., & Wells, G. L. (2012). The moderating effect of ecphoric experience on post-identification feedback: A critical test of the cues based inference conceptualization. *Applied Cognitive Psychology, 26,* 243–250. http://dx.doi.org/10.1002/acp.1815

Clark, S. E., Brower, G. L., Rosenthal, R., Hicks, J. M., & Moreland, M. B. (2013). Lineup administrator influences on eyewitness identification and eyewitness confidence. *Journal of Applied Research in Memory & Cognition, 2,* 158–165. http://dx.doi.org/10.1016/j.jarmac.2013.06.003

Clark, S. E., Marshall, T. E., & Rosenthal, R. (2009). Lineup administrator influences on eyewitness identification decisions. *Journal of Experimental Psychology: Applied, 15,* 63–75. http://dx.doi.org/10.1037/a0015185

Deffenbacher, K. A., Bornstein, B. H., & Penrod, S. D. (2006). Mugshot exposure effects: Retroactive interference, mugshot commitment, source confusion, and unconscious transference. *Law and Human Behavior, 30,* 287–307. http://dx.doi.org/10.1007/s10979-006-9008-1

Douglass, A. B., Neuschatz, J. S., Imrich, J., & Wilkinson, M. (2010). Does post-identification feedback affect evaluations of eyewitness testimony and identification procedures? *Law and Human Behavior, 34,* 282–294. http://dx.doi.org/10.1007/s10979-009-9189-5

Dysart, J. E., Lindsay, R. C. L., Hammond, R., & Dupuis, P. (2001). Mug shot exposure prior to lineup identification: Interference, transference, and commitment effects. *Journal of Applied Psychology, 86,* 1280–1284. http://dx.doi.org/10.1037/0021-9010.86.6.1280

Eisen, M. L., Perez, C., Ushibishi, H., Montes, O., & Ritter, A. (2005, March). *The effects of subtle disconfirming feedback on line-up decisions and eyewitness confidence judgments*. Paper presented at the annual meeting of the American Psychology-Law Society, L. A. Jolla, CA.

Eisen, M. L., Smith, A. M., Olaguez, A. P., & Skerritt-Perta, A. S. (2017). An examination of showups conducted by law enforcement using a field-simulation paradigm. *Psychology, Public Policy, and Law, 23,* 1–22. http://dx.doi.org/10.1037/law0000115

Garrioch, L., & Brimacombe, C. A. E. (2001). Lineup administrators' expectations: Their impact on eyewitness confidence. *Law and Human Behavior, 25,* 299–315. http://dx.doi.org/10.1023/A:1010750028643

Greathouse, S. M., & Kovera, M. B. (2009). Instruction bias and lineup presentation moderate the effects of administrator knowledge on eyewitness identification. *Law and Human Behavior, 33,* 70–82. http://dx.doi.org/10.1002/acp.1815

Kovera, M. B., & Evelo, A. J. (2017). The case for double-blind lineup administration. *Psychology, Public Policy, and Law, 23,* 421–437. http://dx.doi.org/10.1037/law0000139

Rodriguez, D. N., & Berry, M. A. (2013). Eyewitness science and the call for double-blind lineup administration. *Journal of Criminology, 2013,* 1–10. http://dx.doi.org/10.1155/2013/530523

Rosenthal, R. (2002). Covert communication in classrooms, clinics, courtrooms, and cubicles. *American Psychologist, 57,* 839–849. http://dx.doi.org/10.1037/0003-066X.57.11.839

Rosenthal, R., & Rubin, D. B. (1978). Interpersonal expectancy effects: The first 345 studies. *Behavioral and Brain Sciences, 1,* 377. http://dx.doi.org/10.1017/S0140525X00075506

Smalarz, L., & Wells, G. L. (2014a). Post-identification feedback to eyewitnesses impairs evaluators' abilities to discriminate between accurate and mistaken testimony. *Law and Human Behavior, 38,* 194–202. http://dx.doi.org/10.1037/lhb0000067

Smalarz, L., & Wells, G. L. (2014b). Confirming feedback following a mistaken identification impairs memory for the culprit. *Law and Human Behavior, 38,* 283–292. http://dx.doi.org/10.1037/lhb0000078

Steblay, N. M. (1997). Social influence in eyewitness recall: A meta-analytic review of lineup instruction effects. *Law and Human Behavior, 21,* 283–297. http://dx.doi.org/10.1023/A:1024890732059

Steblay, N. K., Dietrich, H. L., Ryan, S. L., Raczynski, J. L., & James, K. A. (2011). Sequential lineup laps and eyewitness accuracy. *Law and Human Behavior, 35,* 262–274. http://dx.doi.org/10.1007/s10979-010-9236-2

Steblay, N. K., & Dysart, J. E. (2016). Repeated eyewitness identification procedures with the same suspect. *Journal of Applied Research in Memory & Cognition, 5,* 284–289. http://dx.doi.org/10.1016/j.jarmac.2016.06.010

Steblay, N. K., Tix, R. W., & Benson, S. L. (2013). Double exposure: The effects of repeated identification lineups on eyewitness accuracy. *Applied Cognitive Psychology, 27,* 644–654.

Steblay, N. K., Wells, G. L., & Douglass, A. L. (2014). The eye-witness post-identification feedback effect 15 years later: Theoretical and policy implications. *Psychology, Public Policy, and Law, 20,* 1–18. http://dx.doi.org/10.1037/law0000001

Wells, G. L. (1999). Improving eyewitness identification evidence. *Psychological Science Agenda, 12,* 8–10.

Wells, G. L., & Bradfield, A. L. (1998). "Good you identified the suspect": Feedback to eyewitness distorts their reports of the witnessing experience. *Journal of Applied Psychology, 83,* 360–376. http://dx.doi.org/10.1037/0021-9010.83.3.360

Wells, G. L., Memon, A., & Penrod, S. D. (2006). Eyewitness evidence. *Psychological Science in the Public Interest, 7,* 45–75. http://dx.doi.org/10.1111/j.1529-1006.2006.00027.x

Wells, G. L., & Quinlivan, D. S. (2009). The eyewitness post-identification feedback effect: What is the function of flexible confidence estimates for autobiographical events? *Applied Cognitive Psychology, 23,* 1153–1163. http://dx.doi.org/10.1002/acp.1616

Wells, G. L., Small, M., Penrod, S. J., Malpass, R. S., Fulero, S. M., & Brimacombe, C. A. E. (1998). Eyewitness identification procedures: Recommendations for lineups and photospreads. *Law and Human Behavior, 22,* 603–647. http://dx.doi.org/10.1023/A:1025750605807

Zimmerman, D. M., Chorn, J. A., Rhead, L. M., Evelo, A. J., & Kovera, M. B. (2017). Memory strength and lineup presentation moderate effects of administrator influence on mistaken identifications. *Journal of Experimental Psychology: Applied, 23,* 460–473. http://dx.doi.org/10.1037/xap0000147

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