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# Eyewitness identification confidence

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# Eyewitness identification confidence

## Abstract

The production has been staged many times over the last decade. Although the plot and cast of characters have often varied, the story always involves a crime, a number of unsuspecting eyewitnesses, and an attempt to identify the criminal. Despite these variations, the ending usually remains the same: Some eyewitnesses feel certain they have identified the perpetrator; others lack that certainty. The accuracy of a witness's testimony cannot, however, necessarily be garnered from the certainty he or she expresses. Eyewitness confidence has been found to account for less than 10 percent of the variance in eyewitness identification accuracy (Wells & Murray, 1984).

Eyewitness confidence and eyewitness accuracy are often poorly calibrated (for example, Bothwell, Deffenbacher, & Brigham, 1987; Deffenbacher, 1980; Leippe, 1980; Wells & Murray, 1983, 1984). However, jurors tend to rely heavily on eyewitness confidence to infer witness accuracy (for example, Cutler, Penrod, & Stuve, 1988; Lindsay, Wells, & Rumpel, 1981; Wells, Lindsay, & Ferguson, 1979). For example, Wells, Lindsay, and Ferguson found that subject-jurors' ascriptions of eyewitness confidence accounted for 50 percent of the variance in their assessments of eyewitness accuracy. Furthermore, the United States judiciary recognizes confidence as a key factor to be considered in deciding the accuracy of eyewitness testimony (Neil v. Biggers, 1972). Given the persuasive power that eyewitness confidence can have in the criminal justice system, it is important to understand the factors that influence eyewitness confidence, particularly those factors that can weaken or destroy an existing confidence-accuracy relationship.

## Disciplines

Cognition and Perception | Criminology and Criminal Justice | Law and Psychology | Psychology

## Comments

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The production has been staged many times over the last decade. Although the plot and cast of characters have often varied, the story always involves a crime, a number of unsuspecting eyewitnesses, and an attempt to identify the criminal. Despite these variations, the ending usually remains the same: Some eyewitnesses feel certain they have identified the perpetrator; others lack that certainty. The accuracy of a witness's testimony cannot, however, necessarily be garnered from the certainty he or she expresses. Eyewitness confidence has been found to account for less than 10 percent of the variance in eyewitness identification accuracy (Wells & Murray, 1984).

Eyewitness confidence and eyewitness accuracy are often poorly calibrated (for example, Bothwell, Deffenbacher, & Brigham, 1987; Deffenbacher, 1980; Leippe, 1980; Wells & Murray, 1983, 1984). However, jurors tend to rely heavily on eyewitness confidence to infer witness accuracy (for example, Cutler, Penrod, & Stuve, 1988; Lindsay, Wells, & Rumpel, 1981; Wells, Lindsay, & Ferguson, 1979). For example, Wells, Lindsay, and Ferguson found that subject-jurors' ascriptions of eyewitness confidence accounted for 50 percent of the variance in their assessments of eyewitness accuracy. Furthermore, the United States judiciary recognizes confidence as a key factor to be considered in deciding the accuracy of eyewitness testimony (*Neil v. Biggers*, 1972). Given the persuasive power that eyewitness confidence can have in the criminal justice system, it is important to understand the factors that influence eyewitness confidence, particularly those factors that can weaken or destroy an existing confidence-accuracy relationship.

To date, four separate reviews of the accuracy-confidence relationship have concluded that we should not necessarily expect a relationship between eyewitness accuracy and confidence (Bothwell, Deffenbacher, & Brigham, 1987; Deffenbacher, 1980; Leippe, 1980; Wells & Murray, 1984). These reviews offered suggestions as to why eyewitness accuracy and confidence are often

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poorly related. Wells and Murray (1984) suggested that the variation in accuracy–confidence correlations across studies might reflect variation in the researchers' procedures and statistical analyses. Deffenbacher (1980) and Bothwell et al. (1986) suggested that the confidence–accuracy relationship is moderated by the quality of the encoding conditions existing at the time an eyewitness observes a crime; the better the encoding conditions, the stronger the accuracy–confidence relationship. Leippe (1980) proposed that eyewitness accuracy and confidence could be controlled by different mechanisms. That is, some factors could influence accuracy while having no effect on confidence and other factors could influence confidence but not accuracy.

In this chapter, we will review each of these suggestions. More specifically, we will review literature concerning methodological issues involved in assessing confidence–accuracy relationships, moderators of the confidence–accuracy relationship, and the malleability of eyewitness confidence independent of eyewitness accuracy. In addition, we will present some of our recent findings concerning confidence malleability.

Eyewitness confidence can be broadly defined to include witnesses' beliefs in the accuracy of their judgments concerning various aspects of a witnessed event (for example, what was said, the sequence of events, the perpetrator's appearance and attire, the victim, the duration of the event). We will restrict our review to studies of eyewitnesses' confidence in their lineup identification decisions. Furthermore, our discussion is restricted to forensically relevant situations rather than a general confidence–accuracy relation. This focus reflects the differences that exist between lineup identification tasks and other tests of recognition memory (see Wells, *in press*).

For example, whereas subjects in some memory experiments might attempt to recognize an array of previously encountered stimuli, eyewitnesses faced with a lineup identification task typically attempt to identify only one individual from the lineup. Hence, in contrast to many other recognition memory tests, the eyewitness confidence–accuracy relation is derived from an interindividual (between-subjects) rather than an intraindividual (within-subjects) analysis. Each witness contributes only two data points to the correlation; one accuracy score and one confidence rating. The analysis then compares the identification decisions and confidence ratings of different witnesses rather than the responses of a single witness across a number of face recognition trials. It cannot, therefore, separate individual differences in confidence among eyewitnesses from the identification decisions those witnesses make (see Smith, Kassin, & Ellsworth, 1989). Yet researchers interested in the confidence–accuracy relation will likely remain committed to an interindividual focus given its forensic relevance. In actual cases, the court is concerned with a witness's ability to recognize one particular individual rather than his or her facial recognition performance across a number of identification tasks.

## **Methodological considerations in assessing the confidence–accuracy relationship**

### *The need for target-absent lineups*

Wells and Murray's (1984) review identified thirteen studies that found a significant positive correlation between eyewitness accuracy and confidence and eighteen studies that found a negative or no relation between accuracy and confidence. They suggested that methodological factors might account for the inconsistencies in the literature. In particular, they noted that some studies included a target-absent lineup and others did not.

Target-absent conditions must be included in order to make a true assessment of the confidence–accuracy relation, because this assessment does not depend on an analysis of whether witnesses who choose the target are more confident in their choice than witnesses who instead choose a foil. (In actual cases, the police cannot know whether the perpetrator is present in the lineup.) Instead, the relevant comparison is between witnesses who choose the target when he or she is present in the lineup and witnesses who choose an innocent replacement for the target in a target-absent lineup (Wells & Lindsay, 1985). This reasoning follows from the premise that there is (or ought to be) only one suspect in real lineups and therefore the choice of a foil in a target-present lineup is a "known error" (see Wells & Turtle, 1986). A witness's confidence in a known error is forensically irrelevant because such an identification would never lead to prosecution of the individual identified.

In comparing studies that yielded a significant accuracy–confidence correlation with those that did not, Wells and Murray noted that many of the former investigations used only target-present lineups. Studies that include target-present and target-absent lineups commonly obtain a significant relation between confidence and accuracy when the target is present, but yield no such relation when the target is absent from the lineup. "This suggests that any positive relationship between confidence and accuracy with perpetrator-present lineups may be cancelled by a negative relationship that obtains with perpetrator-absent lineups!" (p. 163).

### *Errors of commission versus errors of omission*

Wells and Lindsay (1985) also stressed the importance of discerning between incorrect choices from lineups (that is, errors of commission) and incorrect rejections (that is, errors of omission). Collapsing across errors of choosers and nonchoosers in calculating the confidence–accuracy correlation obscures the forensic value of such an analysis. Consider, for example, the possibility that choosers are more likely to be correct than nonchoosers and that choosers are more confident than nonchoosers (or the reverse). An overall analysis

(collapsed over choosers and nonchoosers) would indicate a significant confidence–accuracy relation even if those witnesses who make false identifications are as confident as those who correctly identify the target and those who make incorrect rejections are as confident as those who correctly make no choice. In other words, the confidence–accuracy relation in the overall analysis would be misleading from a forensic perspective. Practically speaking, it is of no value to determine whether confident choosers are more accurate than nonconfident nonchoosers, particularly if the relation is based on witnesses' status as choosers or nonchoosers rather than their status as confident or nonconfident.

### *The confidence main-effect issue*

There is one further methodological issue that is important from an applied perspective. The issue (not previously discussed in the literature) is as follows. Every time a researcher conducts an eyewitness identification study, the average confidence of witnesses tends to vary. In one experiment, for instance, the mean confidence might be 3.8 on a seven-point scale whereas in another experiment the mean confidence might be 5.3. Sources of this variance are innumerable, including such factors as the subject population, the nature of the witnessed event, and so on.

If we look within experiments, we might find a confidence–accuracy relation. Suppose, for example, the mean confidence of an accurate witness is 4.1 in the first experiment and the mean for an inaccurate witness is 3.5. Similarly, suppose that the means for accurate and inaccurate witnesses in the second experiment are 5.6 and 5.0, respectively. Suppose that the confidence–accuracy correlation is .30 within each experiment. Suppose further that we wish to apply our knowledge of a .30 correlation to a given real world case. Consider the case where we have a real world witness who is 4.8 in confidence. Do we consider that level of confidence to be high or low? In the context of the first experiment, we would consider this a high level of confidence and tend to believe this witness's identification decision. In the context of the second experiment, we would consider this low confidence and tend not to believe the eyewitness.

In reality, the witness is from neither experiment, and herein lies the critical issue. Without some idea of the role played by main effects on mean confidence and the factors that govern it, it is impossible to know how to read the confidence of a witness in a real case in isolation. Our analyses in experiments are better suited to a special real world case in which there are multiple witnesses (who had comparable views of the culprit) who disagree in their identifications of the culprit. In such a case, to the extent that we have established a confidence–accuracy relation in our experiments, we would tend to believe the confident witnesses over the nonconfident witnesses. In cases

where there is only one eyewitness, there can be no mean confidence estimate of accurate versus inaccurate witnesses and thus no clear anchor with which to compare the confidence of this particular witness.

Perhaps another way to consider this issue is to note that in an experiment we use statistics uninfluenced by the mean level of confidence obtained from the subjects. In real cases, however, we must contend with this issue while being in the dark. Consider, for example, an experiment that produces a mean confidence rating of 6.1 on a seven-point scale among witnesses who identify someone from the lineup. Assume virtually no witnesses fell below 5.0 in confidence and yet 45 percent of the witnesses have made false identifications. Suppose we find a correlation of .40 between confidence and accuracy. What then will we do in a real case if we encounter a witness whose self-rated confidence is 6.0? Can we consider this witness highly confident, even though his or her confidence falls below the mean in this most recently conducted experiment?

The general point of these observations is that a cutoff on a confidence scale wherein higher levels suggest the witness is accurate and lower levels suggest the witness is inaccurate will vary from one experiment to the next. Undoubtedly, such variation would also occur from one real world case to another. Accordingly, it is difficult to assess the validity of eyewitnesses' confidence in actual cases.

### **Moderators of the confidence–accuracy relationship**

Recent research has sought to develop an understanding of the conditions that foster or inhibit accuracy–confidence relationships. This research has progressed in accordance with two different perspectives, emphasizing a focus on either encoding (that is, witnessing) or retrieval (that is, identification) conditions. These two different approaches represent the distinction Wells (1978) has articulated between estimator and system variables. Estimator variables operate at the encoding stage of memory (viewing conditions) and are outside the control of the legal system. Although estimator variables can be controlled in research experiments, in actual cases their effects can only be estimated. System variables, on the other hand, are postwitnessed event variables (for example, lineup identification instructions) that are under at least some control by the legal system. They can be manipulated to maximize the correspondence between eyewitness accuracy and confidence.

#### *Estimator variables as moderators of confidence–accuracy relationships*

Deffenbacher (1980) advanced one of the first proposals concerning possible estimator variable moderators of the confidence–accuracy relationship, which

he called the "optimality" hypothesis. According to Deffenbacher, the confidence-accuracy relationship is moderated by the quality of the encoding conditions at the time an eyewitness observes a crime; the better the encoding conditions, the stronger the accuracy-confidence relationship. Characteristics of the encoding conditions could potentially involve qualities of the situation, the target person, and/or the witness (Brigham, 1990; Hosch, this volume). We will review each of these variables in turn.

*Characteristics of the situation.* Empirical tests of the optimality hypothesis have been largely restricted to studies of the role of situational characteristics (for example, target exposure time) in confidence-accuracy relations. Consistent with the notion that optimal encoding conditions should enhance the confidence-accuracy relation, a recent meta-analysis indicated that variation in exposure time to the target person's face accounted for "as much as 27 percent of the variation in the predictability of accuracy from confidence" (Bothwell, Deffenbacher, & Brigham, 1987, p. 694).

In contrast to the findings of this meta-analysis, however, and the intuitive appeal of the premise, the optimality hypothesis has received little support from studies that have manipulated witnesses' opportunities to view the target (Brigham, 1990; Lindsay, Wells, & Ferguson, 1979). For example, Lindsay, Wells, and Ferguson (1979) varied witnessing conditions and determined that changes in eyewitness accuracy were not associated with changes in eyewitness confidence or with the magnitude of the confidence-accuracy relation. In this study, eyewitness accuracy was varied by exposing subject-witnesses to a staged theft under one of three types of viewing conditions that varied in terms of how good a view they afforded of the thief (for example, varying such factors as the amount of viewing time and whether or not the thief wore a hat that masked his hair). This manipulation produced significant differences in accuracy among groups. Changes in accuracy, however, were not accompanied by changes in confidence or by changes in the confidence-accuracy relation.

*Characteristics of the target.* One dimension along which the quality of encoding conditions can vary is the target person's appearance. People's faces vary in attractiveness and distinctiveness. Unattractive or distinctive looking faces are typically easier to remember or identify than attractive or unexceptional faces (for example, Mueller, Heesacker, & Ross, 1984; Shapiro & Penrod, 1986; Brigham, 1990). Brigham (1990) tested the idea that distinctive looking or unattractive targets afford the witness an optimal viewing situation and thus should be associated with strong positive accuracy-confidence correlations. Consistent with this prediction, he found that the confidence-accuracy relation was stronger when the target's face was distinctive rather than nondistinctive and unattractive rather than attractive.

*Characteristics of the witness.* A small number of studies have sought to determine whether there are individual differences that moderate the confidence–accuracy relation (see Hosch, this volume, for a more extensive discussion of individual differences between witnesses). This research suggests two factors that might moderate the confidence–accuracy relation: the willingness of witnesses to choose someone from a lineup or photo spread (Fleet, Brigham, & Bothwell, 1987; Pigott & Brigham, 1985; and public self-consciousness, that is, a dispositional focus on the outward, observable aspects of oneself (Kassin, Rigby, & Castillo, 1991).

The former studies have found stronger accuracy–confidence correlations among witnesses who chose someone from the lineup they viewed than among nonchoosers. The reliability and forensic value of this finding, however, must be considered questionable given the recommendations of Wells and Lindsay (1985) discussed previously. Recall that Wells and Lindsay noted that a forensically relevant assessment of the confidence–accuracy relationship derives from a comparison of witnesses who choose the target from a target-present lineup and witnesses who choose an innocent replacement for the target from a target-absent lineup.

*System variable moderators of confidence–accuracy relationships.* The one successful investigation of system variables that might moderate the accuracy–confidence relationship was conducted by Kassin (1985). In a series of four experiments, Kassin demonstrated that the accuracy–confidence relation could be improved by allowing witnesses to view videotapes of themselves making their identifications from a photo spread before asking them to rate their confidence in their identifications. Kassin claimed that witnesses gained “retrospective self-awareness” (RSA) from this procedure.

Kassin suggested two reasons for the success of RSA in improving the accuracy–confidence relation. First, from a self-perception perspective, it may have provided witnesses with an opportunity to make relevant inferences based on their overt behavior. Witnesses may, for example, have inferred that the quicker they made a decision, the more likely they were to be accurate. Second, RSA may have allowed witnesses to reexperience the thoughts they had when they first viewed the lineup and made an identification decision.

Follow-up research (Kassin, Rigby, & Castillo, 1991) suggests that RSA enhances the confidence–accuracy relation primarily because of a modified self-perception hypothesis, that is, one that applies to witnesses high but not low in public self-consciousness. “Specifically, people who are predisposed to focus on their public behavior and appearance are uniquely sensitive to subtle cues that betray the ease or difficulty with which they made their decision” (Kassin et al., 1991, p. 704).

Researchers concerned with moderators of the confidence–accuracy relation should consider the forensic value of their findings. Here, the distinction

between system and estimator variables is important. Findings concerning estimator variable moderators of confidence–accuracy relationships are forensically valuable insofar as they can be incorporated into either expert testimony or jury instructions and then used by jurors to decide how much weight to assign to a witness’s identification testimony. Such findings cannot be used, however, to increase the actual confidence–accuracy relation. Knowledge of system variable moderators, on the other hand, can be used to develop procedures designed to optimize the confidence–accuracy relation in actual cases. Given the forensic value of such knowledge, we recommend that future research be devoted to first identifying system variable moderators of the CA relation and then using these data to develop procedures designed to maximize the correspondence between confidence and accuracy.

### **The malleability of eyewitness confidence**

Leippe (1980) suggested that we should not necessarily expect a relationship between eyewitness accuracy and confidence because the human information processing systems seem “capable of altering memory and confidence in orthogonal directions, especially in the context of powerful and rich social situations” (p.271). Leippe suggested that eyewitness accuracy and confidence could be controlled by different mechanisms. That is, some factors could influence accuracy but have no effect on confidence and other factors could influence confidence but not accuracy.

For example, in judging the likelihood that their memories are accurate, witnesses presumably use a heuristic in which the vividness of their recollections serves as a cue to the accuracy of the underlying memory. A vivid recollection is considered indicative of an accurate memory. To the extent that witnesses are unaware of encoding or witnessing conditions that can cause memory inaccuracies, however, such as short target exposure time (Shapiro & Penrod, 1986) and low perceived crime seriousness (Leippe, Wells, & Ostrom, 1978), they might vividly recall a distorted or inaccurately encoded memory. Alternatively, social influences, such as discussion with other people present at the scene of a crime might “corroborate” a witness’s memory and thus enhance the strength of his or her belief in the accuracy of the recollection of what happened, rather than influence the vividness of the recollection.

Although numerous studies have confirmed the malleability of eyewitness memory, there has been little theorizing or research devoted to confidence malleability. Only two studies (Luus & Wells, 1991; Wells, Ferguson, & Lindsay, 1981) have investigated Leippe’s (1980) suggestion that certain factors might influence eyewitness confidence but have no effect on accuracy. In both these studies, manipulations designed to alter witnesses’ confidence were introduced after they had made their identifications, thereby isolating

confidence and eliminating any possibility that changes in accuracy might accompany changes in confidence.

*Wells, Ferguson, & Lindsay, 1981*

Drawing on Tesser's (1978) finding that people's attitudes tend to polarize with postexposure thought about a stimulus, Leippe (1980) proposed that the confidence of eyewitnesses might increase with postidentification thought about their lineup choices. Wells et al. (1981) tested Leippe's suggestion by staging thefts for unsuspecting witnesses who first attempted to identify the thief from a photo spread and then were cross-examined. Prior to the cross-examination, half the witnesses were induced to think about their lineup choices. They were briefed about the types of questions they could expect under cross-examination and were encouraged to rehearse possible answers to these questions. The remaining witnesses received no such instruction. The briefings were expected to increase thinking about the witnessed event (including lineup choice) and thus bolster eyewitness confidence. Elevated confidence was expected to enhance perceived eyewitness credibility.

The results indicated that witnesses who had been briefed expressed more confidence in their identifications than did those who were not briefed. The elevated confidence associated with the briefing manipulation was primarily attributable to increased certainty on the part of eyewitnesses who misidentified the perpetrator. The briefing manipulation produced statistically significant increases in expressed confidence for inaccurate but not accurate eyewitness identifications. Subject-jurors who viewed the witnesses' videotaped testimony were unable to distinguish accurate from inaccurate eyewitnesses. Subject-jurors were also significantly more likely to convict the accused if he had been identified by eyewitnesses who had been briefed rather than by an eyewitness who had not been briefed.

Briefing witnesses before they take the stand is a common courtroom practice. It augments the difficulty of the task faced by jurors of distinguishing accurate from inaccurate eyewitness accounts. Unfortunately, the practice of briefing eyewitnesses is probably not the only source of inflated eyewitness confidence. In actual criminal cases, there are numerous events that might occur after an eyewitness makes an identification, but before giving testimony, that could affect the certainty with which that identification testimony is delivered.

We have recently initiated a program of research designed to enhance our understanding of this issue. Our findings to date indicate that eyewitnesses can become more or less confident about their lineup choices as a function of social comparison information obtained after they have made their identifications. This research investigated the effects of informing witnesses of the identification decision of a co-witness (Luus & Wells, 1991).

*Luus & Wells, 1991*

Our (1991) research tested the idea that eyewitness confidence might be influenced by knowledge of the identification decision made by a co-eyewitness. It is not uncommon for more than one eyewitness to view a criminal event. Although modern eyewitness procedural guidelines firmly recommend that eyewitnesses be separated prior to and during lineup identification tasks (Wells, 1988), there are no prohibitions against discussing their identification decisions after the task.

We noted that the role of social influence (the influence of other people) on the confidence of eyewitnesses has been limited to research and theory on the malleability of eyewitness memory with no attempt to examine its impact on eyewitness confidence. Furthermore, dominant theorizing about memory malleability has not adopted a social influence (for example, conformity, compliance, persuasion) perspective, but rather has operated from a reconstructive memory or other purely cognitive framework (Loftus, 1974). Recently, a social influence perspective, involving concepts such as conformity, compliance, and source credibility has been advocated in the memory malleability research literature (for example, see McCloskey & Zaragoza, 1987), but the role of social influence in eyewitness certainty has remained conspicuously absent.

In addition, little attention has been paid to the processes that influence the genesis and expression of eyewitness identification confidence. We reasoned that given the weak relationship between eyewitness accuracy and confidence, it is unlikely that eyewitness identification confidence is a simple function of ecphoric similarity. Ecphoric similarity is the judged degree of resemblance between a memory trace and an external stimulus (Tulving, 1981). Within the realm of an eyewitness identification task, a decision based on ecphoric similarity would derive from a comparison of the eyewitness's memory for the culprit and the physical appearance of the person chosen from the lineup. We do not believe that this is the type of judgment process that operates in eyewitness identification situations. Instead, we believe that eyewitness identification confidence is determined at least to some degree by factors that are not related to ecphoric similarity.

To test this assumption, we staged thefts for pairs of unsuspecting witnesses, then had the witnesses attempt to identify the thief from a target-absent photo lineup. Biased instructions were used to induce false identifications. More specifically, we did not caution witnesses that the thief might not be present in the photo lineup (see Malpass & Devine, 1981). Instead, we instructed witnesses to indicate which of the lineup members they saw steal our equipment. Following the identification task, witnesses were given randomly determined information concerning the alleged identification decision of their co-witness. Some witnesses were led to believe that the co-witness identified

the same person they had. Others were informed that the co-witness had made a different decision when shown the lineup (either identifying a different individual or asserting that the thief was not present). All witnesses were then questioned (and videotaped) about their memory for the theft. The videotaped interviews were later shown to subject-jurors who evaluated the witnesses' credibility.

Our results indicate that eyewitness confidence can be both raised and lowered by information concerning a co-witness's identification decision and that manipulated confidence can influence jurors' assessments of eyewitness credibility. Compared to a control condition in which witnesses received no information concerning their co-witness, co-witness agreement produced a robust inflation of confidence (mean = 8.77 on a ten-point scale) whereas co-witness disagreement produced a precipitous decline in confidence (mean = 4.67 on a ten-point scale). Note that this confidence deflation did not derive from the mere fact that the co-witness allegedly identified a different person from the lineup. *Who* the co-witness was said to have identified played a critical role in shaping the confidence of witnesses. Subject-witnesses who were led to believe that the co-witness identified someone who bore no resemblance to the culprit became more confident about the accuracy of their identifications (mean = 7.87 on a ten-point scale). Furthermore, witnesses whose confidence was either raised or lowered by information concerning the alleged identification decision of a co-eyewitness generally persevered in those levels of confidence. Their confidence ratings did not shift if they were subsequently told that the co-witness information they had received was in error (see Table 16.1). In addition, the effects of the identification feedback extended beyond eyewitnesses' self-rated confidence to subject-jurors' ratings of perceived credibility. Subject-jurors' credibility ratings generally paralleled the witnesses' confidence ratings.

Our findings suggest one reason why eyewitness confidence and eyewitness identification accuracy are not likely to be well correlated by the time witnesses take the stand in actual cases. Specifically, eyewitnesses might learn about the identification decisions of other witnesses prior to the trial or learn about other evidence consistent or inconsistent with their identification decision. An eyewitness, for example, might make an identification and later learn that the suspect was in possession of stolen goods or that he or she had committed a similar offense in the past.

### **Concluding remarks**

Eyewitnesses who claim to be very confident about their identifications probably believe that the person they identified matches their memory for the culprit. Does this belief on the part of an eyewitness serve as a reliable cue to his or her accuracy? Given the large number of studies that have found

Table 16.1. *Luus and Wells's confidence malleability study*

Postidentification information	Witnesses' self-rated confidence
No information (control)	
Witness receives no information regarding the identification decision of co-witness	6.90 <sub>a</sub>
Same information	
Co-witness allegedly IDed the same person	8.77 <sub>b</sub>
Not present	
Co-witness allegedly did not believe the suspect was present in the photo spread	3.57 <sub>c</sub>
Different identification	
Co-witness allegedly identified a different person (a person who looks similar to the one he/she identified)	4.67 <sub>c</sub>
Implausibly-different identification	
Co-witness allegedly identified a different person (one who looks dissimilar to his/her choice)	7.87 <sub>b</sub>
Different/same	
Witness is told that the co-witness IDed a different person (one who looks similar to his/her choice); the experimenter later corrects the information, stating that the other witness identified the same person	4.60 <sub>c</sub>
Same/different	
Witness is told that the co-witness IDed the same person; experimenter later corrects that information, stating that the co-witness IDed a different person (one who looks similar to the one he/she identified)	8.33 <sub>b</sub>
Same/withdraw	
Witness is told that the co-witness identified the same person; the experimenter later withdraws that information, stating that she is not sure who the co-witness identified	8.53 <sub>b</sub>
Different/withdraw	
Witness is told that the co-witness identified a different person; the experimenter later withdraws this information, stating that she is not sure who the co-witness identified	6.13 <sub>a</sub>

*Note:* Means not sharing a common subscript differ at  $p < .05$  using a Newman-Keuls analysis.

little relation between confidence and accuracy, we caution against assuming that such reliability exists. Eyewitnesses' statements of confidence in their identifications might be only partly determined by how similar the identified person is to their memories of the culprit. The research reviewed in this chapter suggests that, in many cases, a statement of confidence could derive from social influences as well as individual differences across witnesses. These additional influences may sometimes overshadow the similarity between the identified person and the eyewitness's memory of that person.

This is problematic to the extent that these additional determinants of

confidence are unrelated to eyewitness accuracy because the eyewitness identification problem is not a question of false identifications per se but rather one of credible or persuasive false identifications (Wells et al., 1979). Hence, the danger is that eyewitnesses who make false identifications might also firmly believe they have identified the culprit. This combination of false identification testimony with a confident belief in its validity creates the potential for miscarriage of justice.

## References

- Bothwell, R. K., Deffenbacher, K. A., & Brigham, J. C. (1987). Correlations of eyewitness accuracy and confidence: Optimality hypothesis revisited. *Journal of Applied Psychology, 72*, 691–695.
- Brigham, J. C. (1990). Target person distinctiveness and attractiveness as moderator variables in the confidence–accuracy relationship in eyewitness identifications. *Basic and Applied Social Psychology, 11*, 101–115.
- Cutler, B. L., Penrod, S. D., & Stuve, T. E. (1988). Juror decision making in eyewitness identification cases. *Law and Human Behavior, 12*, 41–56.
- Deffenbacher, K. (1980). Eyewitness accuracy and confidence: Can we infer anything about their relationship? *Law and Human Behavior, 4*, 243–260.
- Fleet, M. L., Brigham, J. C., & Bothwell, R. K. (1987). The confidence–accuracy relationship: The effects of confidence assessments and choosing. *Journal of Applied Social Psychology, 17*, 171–187.
- Kassin, S. M. (1985). Eyewitness identification: Retrospective self-awareness and the accuracy–confidence correlation. *Journal of Personality and Social Psychology, 49*, 878–893.
- Kassin, S. M., Rigby, S., & Castillo, S. R. (1991). The accuracy–confidence correlation in eyewitness testimony: Limits and extensions of the retrospective self-awareness effect. *Journal of Personality and Social Psychology, 61*, 698–707.
- Leippe, M. R. (1980). Effects of integrative and memorial cognitive processes on the correspondence of eyewitness accuracy and confidence. *Law and Human Behavior, 4*, 261–274.
- Leippe, M. R., Wells, G. L., & Ostrom, T. M. (1978). Crime seriousness as a determinant of accuracy in eyewitness identification. *Journal of Applied Psychology, 63*, 345–351.
- Lindsay, R. C. L., Wells, G. L., & Rumpel, C. M. (1981). Can people detect eyewitness identification accuracy within and across situations? *Journal of Applied Psychology, 66*, 482–489.
- Loftus, E. F. (1974, April). Reconstructive memory: The incredible eyewitness. *Psychology Today*, pp. 116–119.
- Loftus, G. R. (1972). Eye fixations and recognition memory. *Cognitive Psychology, 3*, 525–557.
- Luus, C. A. E., & Wells, G. L. (1993). The malleability of eyewitness confidence: Social influence and perseverance effects. Manuscript submitted for publication.
- Malpass, R. S., & Devine, P. G. (1981). Eyewitness identification: Lineup instructions and the absence of the offender. *Journal of Applied Psychology, 66*, 482–489.
- McCloskey, M., & Zaragoza, M. (1985b). Postevent information and memory: Reply to Loftus, Schooler, and Waegenaar. *Journal of Experimental Psychology: General, 114*, 375–380.
- Mueller, J. H., Heesacker, M., & Ross, M. J. (1984). Likability of targets and distractors in facial recognition. *American Journal of Psychology, 97*, 235–247.
- Neil v. Biggers*, 409 U. S. 188 (1972).
- Pigott, M. A., & Brigham, J. C. (1985). Relationship between accuracy and prior description and facial recognition. *Journal of Applied Psychology, 70*, 547–555.
- Shapiro, P. N., & Penrod, S. (1986). Meta-analysis of facial identification studies. *Psychological Bulletin, 100*, 139–156.

- Smith, V. L., Kassin, S. M., & Ellsworth, P. C. (1989). Eyewitness accuracy and confidence: Within versus between-subject correlations. *Journal of Applied Psychology, 74*, 356–359.
- Tesser, A. (1978). Self-generated attitude change. In L. Berkowitz (Ed.), *Advances in experimental social psychology*, Vol. 11. New York: Academic Press.
- Tulving, E. (1981). Similarity relations in recognition. *Journal of Verbal Learning and Behavior, 20*, 479–496.
- Wells, G. L. (1978). Applied eyewitness-testimony research: System variables and estimator variables. *Journal of Personality and Social Psychology, 36*, 1546–1557.
- Wells, G. L. (1988). *Eyewitness identification: A system handbook*. Toronto: Carswell Legal Publications.
- Wells, G. L. (1993). What do we know about eyewitness identification? *American Psychologist, 48*, 553–571.
- Wells, G. L., Ferguson, T. J., & Lindsay, R. C. L. (1981). The tractability of eyewitness confidence and its implications for triers of fact. *Journal of Applied Psychology, 64*, 440–448.
- Wells, G. L., & Lindsay, R. C. L. (1985). Methodological notes on the confidence–accuracy relationship in eyewitness identifications. *Journal of Applied Psychology, 70*, 413–419.
- Wells, G. L., Lindsay, R. C. L., & Ferguson, T. J. (1979). Accuracy, confidence, and juror perceptions in eyewitness identification. *Journal of Applied Psychology, 64*, 440–448.
- Wells, G. L., & Murray, D. M. (1983). What can psychology say about the Neil v. Biggers criteria for judging eyewitness identification accuracy? *Journal of Applied Psychology, 68*, 347–362.
- Wells, G. L., & Murray, D. M. (1984). Eyewitness confidence. In G. L. Wells & E. F. Loftus (Eds.), *Eyewitness testimony: Psychological Perspectives* (pp. 155–170). Cambridge, England: Cambridge University Press.
- Wells, G. L., & Turtle, J. W. (1986). Eyewitness identification: The importance of lineup models. *Psychological Bulletin, 99*, 320–329.

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