

Suggestive Eyewitness Identification Procedures and the Supreme Court's Reliability Test in Light of Eyewitness Science: 30 Years Later

Gary L. Wells · Deah S. Quinlivan

© American Psychology-Law Society/Division 41 of the American Psychological Association 2008

Abstract The U.S. Supreme Court's ruling concerning suggestive eyewitness identification procedures (*Manson v. Braithwaite*, 1977, 432 U.S. 98) has not been revisited by the Court in the intervening 30+ years. Meanwhile, scientific studies of eyewitnesses have progressed and DNA exonerations show that mistaken identification is the primary cause of convictions of the innocent. We analyzed the two-inquiry logic in *Manson* in light of eyewitness science. Several problems are discussed. Ironically, we note that suggestive identification procedures (determined in the first inquiry) boost the eyewitnesses' standing on three of the five criteria (used in the second inquiry) that are used to decide whether the suggestive procedures were a problem. The net effect undermines safeguards intended by the Court and destroys incentives to avoid suggestive procedures.

Keywords Eyewitness · Lineups · Suggestive identification procedures · Expert eyewitness testimony

Every day in the United States courts entertain arguments in pre-trial hearings that challenge eyewitness identification evidence based on suggestive eyewitness identification procedures. The arguments are familiar and the suggestive aspects common. They include using a show-up procedure (the suspect alone presented to the witness) when police could have conducted a lineup (embedding the suspect among fillers), conducting a lineup in which the suspect stood out, failing to tell the eyewitness that the culprit might not be in the lineup, showing the witness a photo of

the suspect before conducting a lineup, telling a potentially non-confident eyewitness that his or her choice was correct, or conducting a second lineup procedure in which the only person in common was the suspect. The defense argument for suppressing the identification in light of even the most highly suggestive procedures almost never prevails (Loftus and Doyle 1997). Instead, courts end up ruling that the suggestiveness of the procedure is outweighed by the "reliability test" articulated by the U.S. Supreme Court in *Manson v. Braithwaite* (1977). *Manson v. Braithwaite* is, in effect, the law of the land on eyewitness identification. Although some state courts have tweaked the reliability test in *Manson*, the core idea remains largely as it was laid out in 1977.

Interestingly, it was around the time of *Manson* that psychological scientists began to conduct programmatic experiments on eyewitness identification with a strong emphasis on suggestive identification procedures (Wells 1978). Since that time, hundreds of eyewitness experiments have been published in peer-reviewed journals, many of which bear on issues in *Manson*. Overall, the empirical data indicate that eyewitness identification evidence is not performing very well (Penrod 2005). In addition, since the time of *Manson*, forensic DNA testing was developed and has been used to test claims of innocence. More than 200 exonerations based on post-conviction DNA testing reveal that mistaken identification was involved in more of these DNA exonerations (over 75%) than all other causes combined (see Connors et al. 1996; Scheck et al. 2000; Wells et al. 1998; see innocenceproject.org/for an up-to-date count of these cases). All the DNA exoneration cases had the benefit of *Manson* when they were tried,¹ which is at

G. L. Wells (✉) · D. S. Quinlivan
Department of Psychology, Iowa State University,
West 112 Lago, Ames, IO 50011, USA
e-mail: glwells@iastate.edu

¹ Or the benefit of the nearly identical ruling, *Neil v. Biggers* (1972), on which *Manson* was based.

least some indication that *Manson* did not work to prevent their wrongful convictions.

The known DNA exoneration cases can only be a fraction of the innocent people who have been convicted based on mistaken eyewitness identification evidence. There are several reasons why the true numbers would have to be dramatically higher than 200. First, in a large percentage of the old cases (in which convicted persons claim to have been misidentified) the biological evidence for DNA testing has deteriorated, has been lost, or has been destroyed. Moreover, virtually all DNA exoneration cases involved sexual assault because those are the cases for which definitive biological evidence (contained in semen) is available to trump the mistaken identification. Such biological evidence is almost never available for murders, robberies, drive-by shootings, and other common crimes that have relied on eyewitness identification evidence. A recent study of lineups in Illinois indicates that only 5% of lineups conducted in Chicago, Evanston, and Joliet were sexual assault cases (Mecklenburg 2006). Most lineup identifications were for non-sexual assaults, robberies, and murders for which there is almost no chance that DNA would be available to trump a mistaken identification. In addition, we would normally expect sexual assault victims to be among the most reliable of eyewitnesses because sexual assault victims usually have a longer and closer look at the culprit than other crime witnesses (compared to robberies, for instance). For these reasons, the DNA exoneration cases can only represent a fraction, probably a very small fraction, of the people who have been convicted based on mistaken eyewitness identification.

All things considered, we doubt that the Court had the same appreciation for the magnitude of the mistaken identification problem in 1977 (pre-DNA testing) that we have today. Moreover, we certainly know that the eyewitness science that exists today was not available to the Court in 1977. Hence, with an enhanced appreciation of the dominant role of mistaken identification in convictions of the innocent, we take a new look at *Manson* in light of the eyewitness science that has emerged. First, we review the *Manson* ruling, including both the majority and minority opinions. Then, we review the science on suggestive identification procedures followed by the science on the five *Manson* criteria. Next, we relate the science back to the two-inquiry logic of *Manson* to reveal a flaw in the two-inquiry approach. We then describe how this flaw serves to dismiss concerns about suggestive procedures, destroys incentives for ridding the system of suggestive eyewitness identification practices, and creates an illusion of protection against wrongful convictions based on eyewitness identification testimony. Finally, we discuss various alternatives to the *Manson* approach.

Manson v Braithwaite

Prior to 1972, there was a presumption, based in large part on the U.S. Supreme Court's ruling in *Stovall v. Denno* (1967), that unnecessarily suggestive eyewitness identification procedures should be excluded as evidence at trial. This became known as the per se exclusion rule. But the per se approach was effectively discarded in 1972 when the Court ruled in *Neil v. Biggers* (1972) and reaffirmed its ruling vigorously in 1977 in *Manson v. Braithwaite* (1977) based on what is sometimes called the *reliability* approach or the *totality* approach. In effect, the Court argued that the issue of exclusion should not rest with whether there was unnecessary suggestiveness per se but should be based instead on the question of whether the identification was nevertheless reliable. Hence, the Court created a two-pronged test for exclusion. The first prong or inquiry is whether the procedure was unnecessarily suggestive. If it was not, then there is no issue. If it was unnecessarily suggestive, then a second inquiry must be held to decide whether the identification was nevertheless reliable. The Court spelled out five criteria for deciding whether the identification was reliable despite the suggestive procedure, which we will call the *Manson criteria* because, although they were first articulated in *Neil v. Biggers*, it was *Manson v. Braithwaite* that reaffirmed and clarified the Court's two-pronged reliability approach. If the witness has good standing on the reliability criteria, then the identification should not be excluded even if the procedure was unnecessarily suggestive.

Manson v. Braithwaite was argued November 29, 1976 and the U.S. Supreme Court issued its decision on June 16, 1977. Braithwaite had been convicted of the possession and sale of heroin based solely on identification evidence by undercover agent Jimmy Glover. The agent-witness did not know the person he bought the heroin from but based on a description and the location of the apartment, a fellow officer, D'Onofio, produced a single photo of Braithwaite. Using this single photo, Agent Glover reportedly made a positive identification of Braithwaite's photo as being a photo of the man from whom he bought the heroin.² Both

² The current article uses the word "reportedly" as a qualifier to the "positive identification" claim that has been used repeatedly in previous writings about Glover's identification of Braithwaite's photo. In fact, no one but Glover was present when Glover first viewed the photo and the only record comes from later testimony from Glover himself. Glover's later claim that the identification was positive and immediate must be treated with some caution given what we know today about retrospective memory distortions of the certainty and immediacy of identification decisions when later information appears to confirm the identification (e.g., Wells and Bradfield 1998). Braithwaite was later arrested in the apartment where Glover made the purchase, which might itself have constituted a form of confirming feedback.

the Second Circuit and the Supreme Court concluded that the identification procedure was impermissibly suggestive, but then continued to the second inquiry (following *Neil v. Biggers* 1972) as to whether, under all the circumstances, that suggestive procedure gave rise to a substantial likelihood of irreparable mistaken identification.

This second inquiry is the reliability test, borrowed directly from *Neil v. Biggers*. Having found that the identification procedure was unnecessarily suggestive, the Court asked whether the identification was reliable even though the procedure was suggestive. Five criteria were articulated for the reliability test concerning (1) view, (2) attention, (3) description, (4) passage of time, and (5) certainty. The majority of the Court concluded that there was no substantial likelihood of irreparable mistaken identification and cited the witness' standing on the five factors outlined in *Biggers*:

1. *Opportunity to view*: Witness Glover was within two feet of the seller and the confrontation was at least "a couple of minutes." There was natural light from the window or skylight.
2. *Attention*: Glover was paying attention because, as a trained police officer, he realized he would have to find and arrest the dealer.
3. *Description*: He gave a detailed enough description that it enabled D'Onofrio to pick a single photo that was later shown to witness Glover.
4. *Time to identification*: Only 2 days passed between the crime and the photo identification.
5. *Certainty*: Glover had "no doubt" that Braithwaite was the person who had sold him heroin.

Based on their analysis, the majority on the Court concluded that there was not a very substantial likelihood of irreparable misidentification. An even longer opinion, however, was written in dissent. In the dissenting opinion, written by Justice Marshall and joined by Justice Brennan, a different characterization emerged of the witness' standing on the five factors outlined in *Biggers*.³ With regard to *opportunity to view*, Marshall wrote:

Careful review of the record shows that he could see the heroin seller only for the time it took to speak three sentences of four or five short words, to hand over some money and later after the door reopened, to receive the drugs in return. The entire face-to-face transaction could have taken as little as 5 or 10 seconds (p. 130).

³ Although originally spelled out in *Neil v. Biggers* (1972), this article will refer to the five criteria used in the second inquiry (view, attention, certainty, time, description) as the *Manson* criteria, or the *Manson* factors, or the *Manson* reliability test.

With regard to *attention*, Marshall wrote:

"But during this time, Glover's attention was not focused exclusively on the seller's face. He observed that the door was opened 12 to 18 inches, that there was a window in the room behind the door, and, most importantly, that there was a woman standing behind the man. Glover was, of course, also concentrating on the details of the transaction – he must have looked away from the seller's face to hand him the money and receive the drugs. The observation during the conversation thus may have been as brief as 5 or 10 seconds (p.131)." Marshall further notes that "the mere fact that he has been so trained [as a police officer] is no guarantee that he is correct in a specific case. His identification testimony should be scrutinized just as carefully as that of the normal witness (p. 131).

Regarding the 2-day time from confrontation to identification, Marshall wrote:

While such temporal proximity makes the identification more reliable than one occurring months later, the fact is that the greatest memory loss occurs within hours after an event. After that, the drop-off continues much more slowly. Thus, the reliability of an identification is increased only if it was made within several hours of the crime (p. 132).

Regarding the *description* given by Glover, Marshall wrote:

...the description given by Glover was actually no more than a general summary of the seller's appearance. We may discount entirely the seller's clothing, for that was of no significance later in the proceeding. Indeed, to the extent that Glover noticed clothes, his attention was diverted from the seller's face. Otherwise, Glover merely described vaguely the seller's height, skin color, hairstyle, and build. He did say that the seller had "high cheekbones," but there is no other mention of facial features, nor even an estimate of age. Conspicuously absent is any indication that the seller was a native of the West Indies, certainly something which a member of the black community [which Glover was] could immediately recognize (p. 133). "Marshall further notes that D'Onofrio, who did not witness the transaction, had acted on a "wild guess" based on Glover's vague description and that D'Onofrio thought that the drugs had been purchased at a different apartment than the one Glover made the transaction.

Finally, regarding Glover's *apparent certainty*, Marshall wrote:

...the witness' degree of certainty in making the identification – is worthless as an indicator that he is correct. Even if Glover had been unsure initially about his identification of respondent's picture, by the time he was called at trial to present a key piece of evidence for the State that paid his salary, it is impossible to imagine his responding negatively to such questions as "is there any doubt in your mind whatsoever" that the identification was correct (p. 131).

It is not a primary purpose of this article to contrast the majority opinion's assessment of the witness' standing on the *Manson* criteria with that of the minority. And it certainly is not the purpose of this article to debate whether Braithwaite was factually innocent or guilty. But, the sharply differing views between the two assessments are striking and it highlights some of the problems that we see with the *Manson* criteria. Notice, for example, that the majority opinion tends to take the witness' self-reports at face value, whereas Marshall does not. For instance, the majority opinion states that the time to view was at least a couple of minutes because that is what Glover said in his testimony. Marshall, in contrast, uses reasoning to estimate that the *functional exposure time* to the seller's face might have been as little as 5 or 10 s. Similarly, the majority opinion states that the witness had "no doubt" in his identification, whereas Marshall suggests that the witness might have been unsure in his initial identification and grew to be certain as a function of later psychological processes. Notice as well that the majority was impressed with the description because it did not significantly differ from Braithwaite's appearance and was good enough to lead D'Onofrio to the photo that he showed to witness Glover. Marshall, on the other hand, noted conspicuous absences in the description and dismissed D'Onofrio's pulling of Braithwaite's photo as a wild guess. Notice as well that the majority thought that 2 days was a short period of time between the confrontation and the identification and compared it to months, whereas Marshall thought it was a long time and compared it to hours.

Back to the First Inquiry

The different assessments of the majority versus minority opinions in the *Manson* case helps make clear that reasonable people can disagree about whether the witness' standing on the *Manson* criteria are strong or weak. But this is even further complicated by the fact that any assessment of the second inquiry (the reliability inquiry based on application of the *Manson* criteria) would necessarily require a full appreciation of the power of the suggestive influences found in the first inquiry. Indeed, some of the

differences between the majority view and the minority view of the witness' standing on the *Manson* criteria in Braithwaite might be attributable to differences in the presumed power of the suggestive procedure itself. Recall that courts are supposed to decide whether the identification procedure was impermissibly suggestive first. If it is, then the second inquiry begins (i.e., the assessment of the witness' standing on the *Manson* criteria). Although the majority opinion in Braithwaite was that the procedure was impermissibly suggestive, the majority was also somewhat dismissive of the power of the one-photo procedure:

we find in the instant case little pressure on the witness to acquiesce in the suggestion that such a display entails. D'Onofrio had left the photograph at Glover's office and was not present when Glover first viewed it two days after the event. There thus was little urgency and Glover could view the photograph at his leisure. And since Glover examined the photograph alone, there was no coercive pressure to make an identification arising from the presence of another. The identification was made in circumstances allowing care and reflection (p. 117).

Hence, the majority, in some respects, appeared close to thinking that the procedure was not highly suggestive in the sense that it did not seem to account for the witness' positive decision. Marshall, in contrast, wrote:

With good reason, such single-suspect procedures have "been widely condemned." *Stovall v. Denno*, 388 U.S., at 302. They give no assurance that the witness can identify the criminal from among a number of persons of similar appearance, surely the strongest evidence that there was no misidentification. In *Simmons v. United States*, our first decision involving photographic identification, we recognized the danger that a witness seeing a suggestively displayed picture will "retain in his memory the image of the photograph rather than of the person actually seen. Subsequent identification of the accused then shows nothing except that the picture was a good likeness (p. 134)."

In fact, Marshall wrote much more extensively on the suggestive procedure than did the majority, including:

The use of a single picture (or the display of a single live suspect, for that matter) is a grave error, of course, because it dramatically suggests to the witness that the person shown must be the culprit. Why else would the police choose the person? And it is deeply ingrained in human nature to agree with the expressed opinions of others – particularly others who should be more knowledgeable – when making a

difficult decision. In this case, moreover, the pressure was not limited to that inherent in the display of a single photograph. Glover, the identifying witness, was a state police officer on special assignment. He knew that D'Onofrio, an experienced Hartford narcotics detective, presumably familiar with local drug operations, believed respondent to be the seller. There was at work, then, both loyalty to another police officer and deference to a better-informed colleague. Finally, of course, there was Glover's knowledge that without an identification and arrest, government funds used to buy heroin had been wasted (p. 136).

Fundamental Majority versus Minority Disagreement about Deterrence

The *Manson* opinion contains only brief allusions to the deterrent value of the reliability approach. Does the reliability approach adopted in *Manson* serve to deter police from using suggestive procedures? Even though they acknowledged that the per se exclusion approach that preceded it had the stronger deterrent value, the majority clearly believed that the reliability approach does have a significant deterrent effect. Simply put, the majority wrote "the police will guard against unnecessarily suggestive procedures under the totality [reliability] rule...for fear that their actions will lead to the exclusion of identifications as unreliable (p. 113)." Marshall's dissenting opinion on the deterrent aspect was equally brief. Marshall noted that the deterrence consideration "favors the per se rule. Indeed, it does so heavily, for such a rule would make it unquestionably clear to the police that they must never use a suggestive procedure when a fairer alternative is available. I have no doubt that the conduct would quickly conform to the rule (p. 126)."

The relatively short shrift given to the deterrence issue in *Manson* stands in considerable contrast to the centrality of deterrence considerations that we bring into the current analysis. In particular, we argue that psychological science on suggestive procedures uncovered since *Manson* gives us strong reasons to believe that there is little disincentive for police and prosecutors to avoid suggestive procedures under *Manson*. In fact, we argue that *Manson* has had the unintended consequence of setting up conditions that create a positive incentive for police to use suggestive procedures.

The Science

The science on eyewitness identification began to unfold in a programmatic way in the late 1970s. But, despite the

temporal contiguity to *Manson*, which was decided in 1977, the science did not develop in response to *Manson* or any other ruling by courts. In fact, even though the late 1970s is generally regarded as the birth of modern eyewitness research, psychological scientists have been questioning the accuracy of eyewitnesses and trying to get the attention of the legal system for over 100 years (see the excellent historical treatment by Doyle 2005). The development of programmatic research on eyewitness identification in the mid to late 1970s was driven at least in part by the provocative experiments of Elizabeth Loftus, who showed that interesting theoretical questions about memory could be examined using procedures that were relevant to the legal system's heavy use of eyewitness evidence (Loftus 1979). Also in the late 1970s, a framework emerged for distinguishing between variables that were under the control of the justice system, called system variables, and those that the justice system could not control, called estimator variables (Wells 1978). The psychological scientists who began programmatic studies of eyewitnesses were mainly cognitive psychologists and social psychologists. For the most part, their work did not appear in law reviews or other publication outlets readily accessible to legal practitioners or legal policy makers, but instead appeared in mainstream peer-reviewed journals in psychology.

Methods and Criticisms of the Science

The science that emerged operated primarily on the experimental model that psychology long ago borrowed from other sciences, such as biology and physics. Specifically, researchers created events (e.g., live staged crimes or video simulations of crimes) that unsuspecting people witnessed. At that point, people had become eyewitnesses. These witnesses could then be questioned about what they witnessed, shown a lineup, and so on. Because the events were created by the researchers, there was no ambiguity about the actual events that were witnessed, including the actions of the actors, words that were spoken, and the identity of the culprit. Accordingly, witness errors could be scored. Within this basic experimental paradigm, systematic manipulations could be made to witness characteristics, viewing conditions, lineup structure, and so on, to study how these variations affect eyewitness errors. A typical experiment will have anywhere from 100 to 300 or more participant-witnesses to stabilize the data and test various hypotheses among subsets of the sample.

It is important to understand that the primary purpose of these experiments, which now number in the hundreds, has been to establish cause-effect relations among variables. For example, one experiment used live staged crimes to see whether placing an innocent person among dissimilar fillers

in a lineup would lead to higher rates of misidentification than if the innocent person were placed among similar fillers (Wells et al. 1993). The researchers did not claim that the obtained rate of misidentifications in the dissimilar-fillers condition (47%) represents a rate that would be expected in actual cases. Instead, the authors noted that the obtained rate was significantly higher than the rate obtained in the similar-fillers condition (11%). Hence, the conclusions from experiments concern cause-effect relations (poorly selected lineup fillers increase rates of misidentification) that relate to *relative risk*, not rates of absolute risk that can be applied to actual cases. At the same time, researchers generally conclude that the cause-effect relation itself can be applied to what would be expected in actual cases.

Those in the legal system who resist conclusions from eyewitness identification experiments generally note several arguments. One is that eyewitness identification experiments commonly use college students as witnesses, whereas eyewitnesses to actual crimes would rarely be a college student. It is true that college students are the most common subjects in these experiments, in large part out of convenience. However, many studies have used young children, adolescents, middle-aged persons, and the elderly. Findings in these studies consistently show that college students outperform these other populations (see reviews by Pozzulo 2006; Bartlett and Memon 2006). College students are less influenced by suggestive procedures, more likely to make accurate identifications, and so on. Therefore, if anything, college students as witnesses underestimate the magnitude of the problem. Another criticism is that the witnesses in experiments do not experience the type of stress and fear that often accompany actual crime witnessing, which some critics argue could make their memories more reliable. It is true that psychological scientists are prohibited by ethical considerations from drawing guns on people or otherwise inducing extreme stress. Nevertheless, experiments that have managed to induce significant stress have shown that stress interferes with, rather than helps, the formation of reliable memories (e.g., Morgan et al. 2004). Finally, critics contend that the experimental witnesses know that a mistaken identification has no serious consequences, whereas eyewitnesses in actual cases would be too cautious to make these errors. On this point, archival studies of actual eyewitnesses to serious crimes show that, among eyewitnesses who select someone from a lineup, they select a known innocent filler 30% of the time on average (Behrman and Davey 2001; Behrman and Richards 2005; Slater 1994; Valentine et al. 2003; Wright and McDaid 1996; Wright and Skagerberg 2007). Clearly, the fact that these were real cases with serious consequences did not lead these witnesses to be too cautious to identify an innocent person. In any case, these criticisms miss the point of the

research. The point of the research is to show cause-effect relations, not overall levels of mistaken identification.

Key Findings Relating to Manson

The eyewitness identification literature is much too large to review in detail in this article. The *Manson* case, however, provides a focus on a subset of the eyewitness science literature because it is somewhat circumscribed around six key concepts, namely, procedural suggestiveness, eyewitness certainty, view, attention, passage of time, and verbal descriptions. We discuss each in turn.

Procedural Suggestiveness in Lineups

From the perspective of psychological science, a procedure is suggestive if it induces pressure on the eyewitness to make a lineup identification (a suggestion by commission), fails to relieve pressures on the witness to make a lineup selection (a suggestion by omission), cues the witness as to which person is the suspect, or cues the witness that the identification response was correct or incorrect. The most common ways in which eyewitness scientists have studied suggestiveness in lineup procedures have been to look at pre-lineup instructions, lineup composition, and suggestive behaviors of lineup administrators.

Pre-lineup instructions have focused primarily on whether or not the witness is told prior to viewing the lineup that the actual culprit might not be in the lineup. At its simplest level, instructing the eyewitness that the culprit might not be in the lineup can be thought of as a procedure to relieve pressure on the eyewitness to make a selection. Indeed, lineups sometimes do not include the actual culprit, which means that the correct answer is sometimes “none of the above.”⁴ To the extent that eyewitnesses naturally assume that the police have the real culprit in the lineup, the suggestiveness is implicit in the procedure itself. Although a failure to instruct the eyewitness that the culprit might not be in the lineup is not suggestiveness by commission (action), it is suggestiveness by omission (inaction). On this point, the research findings are very clear: Mistaken identifications from culprit-absent lineups are significantly higher when the witness is not given the pre-lineup instruction than when the witness is given the

⁴ It is not known how often the suspect in a lineup is the actual culprit, but absence of the culprit in the lineup simply means that the police have focused their investigation on the wrong person. Because there is no reasonable-cause criterion for placing a suspect in a lineup, police are free to conduct a lineup on a mere hunch, which can lead to fairly high rates of culprit-absent lineups being shown to witnesses (Wells 2006). In all the DNA exoneration cases involving lineups, the actual culprit was not in the lineup and the witnesses made identifications nevertheless.

pre-lineup instruction (Malpass and Devine 1981; see meta-analysis by Steblay 1997; more recent meta-analysis by Clark 2005). Given our understanding of the psychological processes involved in the instruction effect, it is reasonable to infer that the suggestiveness of the situation (and, hence, rates of misidentification in culprit-absent lineups) would be further enhanced by any active pre-lineup suggestions that the culprit is in the lineup. This would include telling the eyewitnesses that the culprit has been found, that the police know who did the crime, or that they already have plenty of evidence against the person.

Lineup composition refers to the qualities of the fillers in the lineup. A lineup filler is a known innocent person who is in the lineup to help make the procedure fair. A proper lineup has only one suspect (who might or might not be the culprit) and the remaining lineup members are fillers. One of the ways to think about the role of fillers is that they help to establish whether the witness' memory is reliable enough to avoid selecting a filler. But, a dominant reason for using fillers is to help ensure that the procedure is not suggestive of which person is the focus of the police investigation. Accordingly, the qualities of these fillers are presumed to be critical to maintaining low levels of suggestiveness. Research consistently supports the view that using fillers who do not fit the eyewitness' previous verbal description of the culprit dramatically increases the chances that an innocent suspect who fits this description will be mistakenly identified (e.g., Clark and Tunnicliff 2001; Lindsay and Wells 1980; Wells et al. 1993). For this reason, psychological scientists have drawn a sharp distinction between the *nominal* size of a lineup and the *functional* size of a lineup and have devised ways to measure functional size (Wells et al. 1979). Nominal size refers to a mere count of the number of lineup members (e.g., six if there are five fillers and one suspect), whereas functional size refers to an underlying concept of the number of plausible lineup members. If an eyewitness described the culprit as a white male in his mid 20 s with short, dark hair, for instance, then using three men in their 40 s as fillers has no effect on nominal size, but functional size is reduced by three. Eyewitness researchers measure functional size by showing the lineup to *mock witnesses* who, armed with only the witness' verbal description of the culprit, then attempt to pick out the suspect. Functional size is then defined as N/S , where N is the number of mock witnesses and S is the number of mock witnesses who select the suspect. Hence, if there were 100 mock witnesses and 50 picked the suspect, the functional size would be 2.0; if 20 picked the suspect, functional size would be 5.0 and so on. There are other calculations that have been proposed, such as *effective size* and *defendant bias* (see Malpass 1981), that use the same data collection methodology (mock witnesses). But the general idea is the same, namely to

attempt to assess lineup fairness. An entire issue of the journal *Applied Cognitive Psychology* is devoted to the question of how to best assess lineup fairness (Lindsay and Malpass 1999). The issues are somewhat more complex than they first appear, however, because there are circumstances in which using the eyewitness' verbal description of the culprit for selecting fillers is not an adequate suggestiveness safeguard. Suppose, for instance, a man became a suspect because he resembles the culprit's image from a surveillance video. In such a case, fillers would have to be selected because they are similar to the video image rather than merely because they fit the general verbal description given by the eyewitness.

Show-ups are not lineups at all, but instead are procedures in which the eyewitness is shown only one person or a photo of one person without any fillers. Recall that *Manson v Braithwaite* was a show-up procedure and the Court found that it was unnecessarily suggestive but, based on the second prong (the reliability test), did not exclude it from evidence. Here, the results of experiments have led psychological scientists to refine the nature of what is meant by suggestiveness as it relates to show-ups in contrast to lineups. Whereas courts have generally construed of show-ups as a form of pressure on the witness to make a positive identification, eyewitness experiments tend to show that rates of positive identification are actually *lower* for show-ups than for lineups (see meta-analysis by Steblay et al. 2003). Show-ups, however, are suggestive in a different way, namely they suggest to the witness *which* person to choose. The advantage of a lineup is that errors in choosing will be distributed across the fillers (a relatively harmless error) instead of loading up on the suspect, whereas errors in a show-up will always be the more consequential error of identifying an innocent suspect. As a result, a show-up is worse than a good lineup (i.e., a lineup that has at least five good fillers), but better than a bad lineup (e.g., one in which there are two or fewer good fillers).

Lineup administrator suggestiveness refers to verbal or nonverbal behaviors of the lineup administrator that can influence which person the witness identifies or how the witness feels about the identification. [For reasons that will become apparent, we will delay discussion of the latter aspect (influencing how the witness feels about the identification) for our later sections on eyewitness certainty, view, and attention.] It is important to note that most initial identifications of criminal suspects are obtained using photo-lineups rather than live lineups. Unlike live lineups, which might inhibit lineup administrator suggestiveness because defense counsel is present, there is no right to defense counsel at photo-lineups. Instead, photo-lineups are usually conducted by the case detective who directly interacts with the witness in what is, in effect, a conversation about photos. This creates a situation very similar to

one that has been extensively studied by psychological scientists in other contexts in which a tester's knowledge or expectations influence the person being tested in a direction that is consistent with the tester's knowledge or expectations (see Rosenthal 2002; Rosenthal and Rubin 1978 for extensive reviews and treatments). These effects of the tester on the person being tested are the reason that double-blind procedures are used in scientific experimentation. There is no presumption that these tester effects are the result of intentional efforts by the tester or that the tester is aware of influencing the person being tested. Although there could be intent, such as placing a thumb on the suspect's photo when handing the array to the witness, the concern here is with the kinds of influences that are unintentional, natural byproducts of the interaction. There are many ways that a lineup administrator can influence an eyewitness' identification decision. For instance, the eyewitness might call out the number of a filler photo, and the lineup administrator, knowing that the photo is a mere filler, might urge the witness to make sure she has looked at all the photos before making a decision. Whether intended or not, the message is clear to the witness that the suspect is one of the other photos. In contrast, the mere utterance of the number of the suspect's photo could yield a very different reaction from the lineup administrator, such as "Good, tell me what you remember about that guy." That would lead the witness to stick with that photo even if she had uttered the numbers of filler photos previously. Even without speaking, a lineup administrator can influence an eyewitness through facial expressions and body movements such as head nodding or head shaking. Furthermore, the lineup administrator has a great deal of discretion in deciding when the identification session is over. If the witness picks a filler, the tendency might be to wait to see if she changes her mind or ask if there is anyone else who stands out. If the witness picks the suspect, in contrast, the session is quickly ended. These discretionary behaviors by the lineup administrator are not necessarily intentional and the lineup administrator might not even be aware that she or he is doing it. Instead, these are natural behaviors that testers display when they think that they know the correct answer or have expectations about how the tested person will or should behave.

Experimental studies in which lineup administrators are led to believe (erroneously) that a particular lineup member is the culprit show that witnesses are influenced by what the lineup administrator was led to believe (Haw and Fisher 2004; Phillips et al. 1999; Russano et al. 2006). The double-blind lineup procedure was developed to prevent these suggestive influences of the lineup administrator (Wells 1988; Wells et al. 1998). A double-blind lineup is one in which a neutral lineup administrator (one who does not know which person or photo is the suspect and which are fillers) administers the lineup to the eyewitness.

Multiple presentations of the suspect are yet another way in which a procedure can suggest strongly to the eyewitness which person to identify. This type of situation can occur in a variety of ways. For instance, the eyewitness might first be shown a photo-lineup from which no identification was made. Later, a live lineup is used in which the only person in common to both procedures is the suspect. [It is nearly always true that the only person in common between the photo-lineup and a live lineup is the suspect because fillers from photo-lineups would rarely be available or findable for a live lineup.] Sometimes, an eyewitness will fail to identify the suspect from a photo-lineup and be shown a second photo-lineup later with that same suspect but new fillers. This will sometimes occur when the police think that the first photo might not have resembled the appearance of the suspect very well and later come across one that they think is better. Here, again, the procedure is highly suggestive to the extent that the witness can discern which person is common to both photo-lineups. Precisely these types of effects have been found in eyewitness identification experiments: Witnesses who encountered an innocent person's photo in an initial identification procedure were more likely to misidentify a different photo of him in a second procedure even if they did not misidentify him in the first procedure, but the effect is especially strong if they also misidentified the person in the first procedure (Brigham and Cairns 1988; Gorenstein and Ellsworth 1980; Hinz and Pezdek 2001; see meta-analysis by Deffenbacher et al. 2006). Although experiments have not directly tested the question of in-court identifications that occur after a pre-trial lineup, our understanding of transference and commitment effects leads to the reasonable inference that a mistaken identification prior to trial is likely to be replicated during an in-court identification.

Additional remarks on suggestiveness. The findings of controlled experiments on suggestiveness effects in eyewitness identification are not surprising to psychological scientists. And, as far as we can discern, many of these suggestiveness effects are not likely to surprise actors in the legal system. We note, for example, that most courts consider show-ups to be suggestive and that they routinely consider the quality of fillers used in lineups to be a legitimate concern. We are less certain that the legal system appreciates the ways that lineup administrators influence the results or fully appreciate the import of proper pre-lineup instructions. Furthermore, there is an apparent belief that damage from an unfair identification procedure can be undone by simply following it with a fair procedure. Even Justice Marshall, in his dissenting opinion in *Manson v. Braithwaite* claimed, "When a prosecuting attorney learns that there has been a suggestive confrontation, he can easily arrange another lineup under scrupulously fair conditions (p. 128)." This "retesting" view is diametrically opposed to

the dominant view among psychological scientists that, once an eyewitness has mistakenly identified someone, that person “becomes” the witness’ memory and the error will simply repeat itself. Perhaps the biggest difference between the views of psychological scientists and those in the legal system is the legal system’s belief, inherent in *Manson v. Braithwaite*, that concerns about suggestive identification procedures can be trumped by the types of considerations used in the second prong (the reliability test using the *Manson* criteria).

Research Related to the *Manson* Criteria

Recall that the analysis of suggestiveness is only the first prong in deciding the admissibility of eyewitness identification evidence. If the court rules that the procedure was not unduly suggestive, the identification evidence is admitted. If the procedure was found to be suggestive, then the court is to consider the question of whether the identification was reliable nevertheless based on five criteria. In principle, there is nothing inherently flawed about the idea of a two-pronged test of this sort. Imagine, for instance, that a victim-witness had been abducted and held for 3 months during which the culprit’s face was never covered and there was full light (repeated opportunity to view), the victim studied the face repeatedly (repeated attention), the victim described the face in great detail, including unique features (excellent description), and the witness identified the suspect with total certainty within minutes after escaping. Surely, in this case we would not care if the identification procedure had multiple characteristics of a highly suggestive procedure (e.g., a show-up, failure to warn the witness that this might not be the culprit, and so on). Therefore, we concede that at some level these reliability factors (e.g., 3 months repeatedly studying the face) would appropriately trump concerns about suggestive procedures. However, these are not the situations in which the *Manson* reliability criteria are being applied on an everyday basis and not the situation in the *Manson* case. Justice Marshall estimated that the witness in *Manson v. Braithwaite* likely saw the person for only 5 or 10 s, there were distractions from others in the apartment, the door was barely open, the identification occurred days later, the witness might not have been certain at all at the time of the single-photo identification, and the description was very weak.

In this section, we examine the *Manson* reliability criteria in the context of the science that has emerged since *Manson*. It is important to note that there are three themes in this analysis. One theme concerns the fact that three of the five *Manson* criteria, namely view, attention, and certainty, are what psychological scientists call *retrospective self-reports*. Psychological scientists are highly skeptical of

retrospective self-reports because of well-known tendencies for such reports being at odds with objective facts. It has been well established, for example, that people retrospectively report that variables affected them that in fact did not affect them and people also report that variables did not affect them that in fact did affect them (Nisbett and Wilson 1977). Part of the problem is that retrospective self-reports are highly malleable in response to even slight changes in context (e.g., who is asking the question), the social desirability of the responses, the need to appear consistent, and reinterpretations of the past based on new events. At another level, psychological scientists find it somewhat odd that an eyewitness, whose credibility as a witness is being assessed, would be asked to report on his or her own credibility. It seems a bit like assigning a student’s grade based on his or her self-reports of how hard they studied.

A second theme running through this analysis of the *Manson* factors is the precarious nature of the relation between the *Manson* factors and eyewitness identification accuracy. Some of these relations clearly are not linear and the *Manson* factors themselves are not independent of each other.

The third theme that runs through this analysis of the *Manson* factors, and perhaps the most important one, is that at least three of the *Manson* factors are not independent of the suggestive procedure itself. In other words, the use of suggestive procedures can lead the eyewitness to enhance (distort) his or her retrospective self-reports in ways that help ensure the witness’ high standing on the *Manson* criteria, thereby leading to a dismissal of the suggestiveness concern. We will call this latter process, in which suggestiveness causes inflated status on the *Manson* factors, which in turn causes courts to discount the suggestiveness, the *suggestiveness augmentation effect*. We believe that the suggestiveness augmentation effect is a very serious problem for the two-prong totality approach guiding *Manson*. We believe that the suggestiveness augmentation effect accounts at least in part for the rarity of suppressing identifications obtained from highly suggestive procedures, and we believe this effect creates a disincentive for police and prosecutors to jettison suggestive procedures.

View

There can be no doubt that the witness’ opportunity to view the culprit is relevant at some level. For example, if the witness was a kilometer from the culprit’s face, humans could not store a reliable visual image. But, what is a reliable distance? The relation between distance and face perception is not linear. For instance, there is no diminishing effect of distance up to 25 feet. After 25 feet, face perception diminishes and accurate face identification for

people with normal vision drops to zero at approximately 150 feet (Loftus and Harley 2005). The maximum, 150 feet, probably would surprise most people because they recall experiences in which they seem to have recognized a familiar person's face from distances much greater than 150 feet. But, in some very clever experiments, researchers have shown that people are subject to a *visual hindsight illusion*. Specifically, when people were told ahead of time the identity of the person observed from a distance, they estimated that the face was clear and recognizable at distances that simulated several hundred feet. When actually tested under conditions in which they were not told the identity ahead of time, however, performance reached zero at approximately 150 feet (see Harley et al. 2004; Loftus and Harley 2005). If you already know the identity of the person, the mind can be pretty good at "filling in" the image at several hundred feet. But this is not the situation for the typical eyewitness who is looking at a stranger's face from a distance.

Exposure time to a face does show a relation to the chances of an accurate recognition decision, but a meta-analysis indicates that the relation is relatively weak (Shapiro and Penrod 1986). Commonly, opportunity to view is assessed by asking the eyewitness to estimate his or her own exposure time (e.g., "How long was the culprit's face in view?") and occlusions (e.g., "Was your view blocked during any part of this time?"). In fact, however, eyewitnesses' estimates of time during witnessing are greatly overestimated (e.g., Shiffman and Bobko 1975), especially when there is stress or anxiety at the time of witnessing (e.g., Sarason and Stroops 1978). Furthermore, the proportion of time that a person's face is occluded is greatly underestimated by eyewitnesses (Wells and Murray 1983). Sometimes, it is possible to rely on something other than the self-report of the witness to determine issues of visual occlusion. For instance, if it can be established exactly where the witness was standing and where the culprit was, analyses of the actual scene might show that a tree, building, or some other fixed object occluded the witness' view. Nonetheless, this still requires a self-report about where the witness was standing in relation to the culprit and would fail to account for ephemeral occlusions, such as another person standing in the way or a car being parked at a particular location at that time.

Although estimates of distance, exposure time, and reports of visual occlusions are commonly sought from witnesses, the usual shortcut question to get to the bottom line is something like "Were you able to make out details of the culprit's face from where you observed the event?" Here is where things get especially interesting. In a series of published experiments across a variety of psychological laboratories, witnesses to simulated crimes were shown lineups that did not include the culprit and made mistaken

identifications. After their mistaken identification, a suggestive remark was made by the lineup administrator that seemed to confirm their selection ("Good, you identified the suspect in the case") or no suggestive remark was made by the lineup administrator. Later, all of the witnesses were asked, "How good was the view that you had of the culprit?" and "How well could you make out details of the culprit's face while witnessing the crime?" Of course, all these witnesses had the same (quite poor) view of the culprit. And, those who were not given the confirmatory suggestive remark seemed to understand rather well that their view was very poor. In the original experiment by Wells and Bradfield (1998), for instance, none reported that their view was good or excellent. Among those who were given the confirmatory suggestive remark, however, 27% said that their view was good or excellent. Similarly, among those who were not given the confirmatory suggestive remark, none reported that they could easily make out details of the face. Among those given the suggestive remark, in contrast, 20% reported that they could easily make out details of the face. Hence, the suggestive remark managed to lead a fairly large portion of mistaken eyewitnesses who had very poor views and little or no ability to make out face details to self-report that they had a good view and could easily make out details of the face.

This retrospective inflation of what witnesses say about their view also occurs when the suggestiveness comes from the use of poor lineup fillers (Semmler and Brewer 2007). In other words, the use of poor lineup fillers, a form of suggestiveness that places an innocent suspect at greater risk, leads eyewitnesses to report that they had a better view, and hence the suggestive procedure actually enhances the witnesses' standing on the view criterion of *Manson*.

Attention

Clearly, attention is necessary for the processing of any stimulus. However, the Court seems to equate the amount of time that the witness spent looking at the culprit's face with attention. Generally, the amount of time spent looking at a stimulus has not been considered to be a particularly strong predictor of the ability of the witness to process the stimulus. Instead, psychological scientists have emphasized the *type of processing* that is occurring while attending to a stimulus to be much more important. In the case of faces, for example, devoting attention to specific facial features (e.g., nose, eyes, chin, mouth) can take a considerable amount of time when compared to making a global or holistic judgment of the face. Yet, it is the holistic judgments, which can occur fairly rapidly, that lead to a better ability later to recognize that face among filler faces (e.g., Bower and Karlin 1974; Patterson and Baddeley 1977).

On the other hand, for purposes of being able to reconstruct the face (e.g., using a composite drawing system), attention to specific facial features is superior to the global judgments (Wells and Hryciw 1984).

Humans have a limited capacity for processing information. As a result, attention paid to one stimulus necessarily results in a reduction of attention paid to other stimuli (Kahneman 1973). The *weapon focus effect* illustrates this phenomenon. Eyewitness experiments have consistently shown that the presence of a weapon (e.g., a gun or knife in the hand of the culprit) leads to a reduced ability to recognize the face of the culprit later (see Steblay 1992, for a meta-analysis of these studies). The dominant explanation is that the weapon draws attention, thereby pulling attention away from the culprit's face. Eye tracking research has generally confirmed the selective attention interpretation of weapon focus effect (Loftus et al. 1987). Also, controlled studies have shown that the better the eyewitness can describe peripheral aspects of the crime scene (e.g., there was a Coke on the table, I noticed that the window was open), the poorer is their memory of the culprit's face (Wells and Leippe 1981).

Attention matters, but the issue of how to assess the amount of attention and type of attention that the eyewitness engaged in is very unclear. The legal system takes the very straightforward approach of simply asking the eyewitness questions such as "Did you attend to the culprits face?" or "Where did you direct your attention?" or "How much attention did you pay to the appearance of the culprit?" Hence, attention is a self-report. The system is even more reliant on self-reports for the attention variable than it is for the view variable because at least some aspects of view can occasionally be checked against external assessments of the crime scene (checking distances and lighting conditions).

Attention is a purely psychological variable that cannot be checked against any objective facts in an actual case.⁵ Accordingly, the question arises as to whether self-reports of attention are reliable as indicators of eyewitness identification accuracy. The question is much more difficult to answer than it appears, but there is one consistent finding that bears directly on this question as it relates to a *Manston*-type test of reliability in the context of suggestive identification procedures. Specifically, numerous experiments show that confirmatory suggestive remarks following a mistaken identification (e.g., "Good, you identified the suspect") lead witnesses to inflate their estimates of how much attention they paid to the culprit during the witnessed

event (Bradfield et al. 2002; Dixon and Memon 2005; Douglass and McQuiston-Surrett 2006; Hafstad et al. 2004; Neuschatz et al. 2005; Skagerberg 2007; Smith et al. 2000; Wells and Bradfield 1998; Wells and Bradfield 1999; Wells et al. 2003; see meta-analysis by Douglass and Steblay 2006). The post-identification feedback effect occurs not just in lab-based experiments, but also occurs for actual eyewitnesses to serious crimes (Wright and Skagerberg 2007). In effect, this consistent finding means that witness' reports of their attention are not only malleable, but also that reports of how much attention was paid are affected by suggestive procedures, in this case suggestive feedback.

It is not just suggestive feedback that leads to retrospective distortions of witness' reports of their attention. This same phenomenon of inflating their reports of how much attention they paid occurs when a suggestive photo-array (i.e., the fillers do not fit the witness' description of the culprit) is used (Semmler and Brewer 2007). Again, we see that a suggestive procedure actually enhances the eyewitnesses' standing on a *Manston* reliability factor.

Certainty

The certainty that an eyewitness expresses in his or her identification is one of the most researched variables in the eyewitness identification literature. This is because almost any eyewitness identification experiment assesses the eyewitnesses' certainty in their identification decisions. The wording of the key question varies from experiment to experiment (e.g., "How certain are you that you identified the right person?" "How confident are you in your identification?"), but the concept being measured is how much faith the eyewitness has in his or her own identification. Even without the status that the Court has given to certainty in the *Manston* reliability test, certainty plays a central role in eyewitness identification evidence. The certainty of an identification is going to affect decisions as to whether to charge the suspect with the crime, whether to proceed to trial, and whether the testimony will have a strong impact on jurors (e.g., Bradfield and Wells 2000; Cutler et al. 1988; Fox and Walters 1986; Wells et al. 1979; Wells et al. 1981; Whitley and Greenberg 1986). Hence, the question of the relation between eyewitness identification accuracy and witness certainty is important at several levels, not just for purposes of deciding the admissibility of the identification.

Calculations of the relation between certainty and accuracy in eyewitness identification experiments can be done in a number of ways, but the most common method is the use of the point-biserial correlation coefficient. Based on a large number of eyewitness identification experiments conducted in dozens of different labs, a meta-analysis of the certainty-accuracy correlation showed that if the analysis is restricted to only those witnesses who made an

⁵ In laboratory experiments, non-self-report measures, such as directed gaze and eye movements can be measured to study attention. But actual cases are necessarily dependent on retrospective self-reports of attention.

identification the average correlation could be as high as 0.41 (Sporer et al. 1995). If non-identifying eyewitnesses are included (i.e., those who erroneously rejected the lineup and those who correctly rejected the lineup), then the correlation is considerably lower than 0.41. What does a 0.41 correlation mean? One way to think about a 0.41 correlation is to compare it to something with which people have some experience. For instance, the correlation between height and gender in humans is considerably greater than 0.41. That means that we could better predict whether someone was male or female based on their height than we could predict whether a witness was accurate or inaccurate based on their certainty. At the same time, however, a 0.41 correlation is far from being useless. Suppose, for instance, we took 100 eyewitnesses, half of whom had made an accurate identification and half of whom had made a mistaken identification. If the certainty-accuracy correlation is 0.41, then approximately 70% of the witnesses who are above average in certainty would be accurate (30% mistaken) and only 30% of those who are below average in certainty would be accurate (70% mistaken). These figures, however, change depending on what the presumed base rate is for accuracy, so things begin to get complex and at some point are unsolvable without knowing several other things that we cannot actually know in a real case. Suffice to say that psychological scientists have generally concluded that eyewitness certainty, although of limited utility, can have some diagnostic value.

Despite the acknowledgment that eyewitness identification certainty can have some diagnostic value, the diagnostic value of eyewitness identification certainty in cases where there have been suggestive procedures represents a very different situation. The problem with using eyewitness certainty as a second-prong reliability factor in *Manson*-type situations is that it has already been determined (under the first prong) that a suggestive procedure was used with this eyewitness. As with view and attention, we know that confirmatory suggestive remarks from the lineup administrator consistently inflate eyewitness certainty for eyewitnesses who are in fact mistaken (Bradfield et al. 2002; Dixon and Memon 2005; Douglass and McQuiston-Surrett 2006; Hafstad et al. 2004; Neuschatz et al. 2005; Semmler and Brewer 2006; Semmler et al. 2004; Skagerberg 2007; Wells and Bradfield 1998; Wells and Bradfield 1999; Wells et al. 2003; see meta-analysis by Douglass and Steblay 2006). In one study, for example, fewer than 15% of eyewitnesses who had mistakenly identified someone stated that they were positive or nearly positive in their identification. However, when given a suggestive statement that appeared to confirm their identification (“Good, you identified the actual suspect”), a full 50% of the mistaken eyewitnesses said that they were positive or nearly positive in their identification. It is

important to note that the question asked of the eyewitnesses was “How certain were you *at the time of your identification* that you had identified the right person?” Because the suggestive remark occurred *after* their identification, the suggestive remark could not have influenced how certain they were at the time of their identification. Hence, the suggestive remark is distorting their recollections of certainty; they no longer remember that they were uncertain at the time of the identification and instead think that they were certain all along. It is important to note as well that this suggestive confirmatory effect is stronger for mistaken eyewitnesses than it is for accurate eyewitnesses, thereby making inaccurate eyewitnesses look more like accurate eyewitnesses and undermining the certainty-accuracy relation (Bradfield et al. 2002). A suggestive lineup procedure in which the suspect stands out as the only lineup member who fits the description has similar effects; witnesses are more confident in their identifications of the suspect when the suspect stands out than when the suspect is surrounded by appropriate fillers, regardless of whether the suspect is guilty or not (Wells et al. 1993; Semmler and Brewer 2007).

Once again, we see that suggestive procedures distort an eyewitness’ standing on a *Manson* reliability factor. Because the *Manson* reliability factors come into consideration once it is already determined that a procedure was suggestive, courts are using the *Manson* reliability factors under precisely the conditions that make the *Manson* criteria questionable and likely misleading.

Descriptions

The Court made a curious and interesting error in phrasing the description criterion as “the accuracy of the description.” Clearly, the accuracy of the eyewitness’ pre-lineup description can only be determined if that description is compared to the physical characteristics of the *culprit*. Saying that the description is accurate because it fits the physical characteristics of the *defendant* presumes that the defendant and the culprit are the same person. And yet, that presumption is the exact proposition under contention. Undoubtedly, the Court meant to say that the criterion was one of *consistency* between the physical appearance of the culprit and the witness’ pre-lineup description and the amount of *detail* that was contained in the witness’ description. Hence, a witness would have a poor standing on the description criterion if there were significant inconsistencies between the description and the characteristics of the defendant and/or the description was vague and general.

What does the science say about the relation between description consistency and eyewitness identification accuracy and between description completeness (number of descriptors used) and eyewitness identification

accuracy? In general, there appears not to be much of a relation. Pigott and Brigham (1985) found no meaningful correlation between descriptions and eyewitness identification accuracy. Wells (1985), using a much broader sample of 88 faces, found no correlation between description completeness and identification accuracy but a statistically significant (albeit low) correlation of 0.19 between description consistency and identification accuracy. Importantly, however the correlation between description completeness and identification accuracy was not attributable to good describers being good identifiers, but instead was attributable to the fact that faces that are easier to describe are also easier to identify.

The general failure of verbal descriptions to predict eyewitness identification accuracy is not surprising to memory scientists. Eyewitness identification is a form of recognition memory, whereas verbal description is a form of recall memory. Recognition memory occurs when a stimulus is presented to a person and the person decides whether it is the same stimulus that was experienced earlier. Recall memory occurs when a person is given some general context (e.g., yesterday or 2 months ago) and then is asked to generate words, drawings, or some other reproduction of the previously experienced stimulus. In the case of faces, studies suggest that the psychological processes that give rise to good recall and those that give rise to good recognition are not the same. For instance, Wells and Hryciw (1984) found that having people study the individual features of a face (e.g., nose, eyes) made them good at describing the face but poor at recognizing the face, whereas having people make global judgments of the face made them good at recognizing the face but poor at describing the face.

But even a small relation between description consistency and identification accuracy, like that shown by Wells (1985), fails to capture two very important dynamics in actual cases that should give pause to relying too much on consistency between the description and the characteristics of the identified person. First, the pre-lineup description that the eyewitness gave of the culprit commonly is used by police investigators to decide which person they consider a likely suspect in the first place. Consider, for instance, an innocent person like Kirk Bloodsworth, the first person who was sentenced to death and later exonerated by DNA (Junkin 2004). Bloodsworth had never been in trouble with the law, but Bloodsworth so closely matched the witness' descriptions of the culprit (and the composite drawing) that he became the suspect *because of* that similarity and was identified in a photo lineup. Obviously, in the Bloodsworth case the consistency between the pre-lineup description and the physical characteristics of the defendant (Bloodsworth) were striking. But this striking consistency was not the result of an accurate eyewitness; Bloodsworth was,

after all, innocent. Instead, the similarity between the pre-lineup description and the characteristics of the suspect was the byproduct of a natural suspect-generating process that is bound to show this consistency regardless of whether the suspect is guilty.

The second important dynamic in actual cases that should give pause to relying much on consistency between the description and the characteristics of the identified person is the fact that eyewitness misidentifications from lineups are not random. Eyewitnesses tend to select the person who looks most like their memory of the culprit (Wells 1984) and will readily select an innocent person if that person fits the eyewitness' pre-lineup description better than do the lineup fillers (e.g., Lindsay and Wells 1980; Wells et al. 1993). In other words, when misidentifications occur, they tend to load up on someone who fits the eyewitness' pre-lineup description of the culprit.

Imagine now a hearing in which a lineup was found to be suggestive in first inquiry of *Manson* because the fillers did not fit the eyewitness' pre-lineup description (the classic biased lineup). Hence, the second inquiry focuses on the description criterion of *Manson* and it is noted that the description was good because it fits (is consistent with) the characteristics of the defendant. Here, we see that the reliability factor is used to decide that the suggestiveness was not a problem, and yet this is precisely the kind of consistency between description and identification that would be expected even if he was not the culprit.

Time between Crime and Confrontation

Justice Marshall's dissenting opinion was correct in noting that the greatest memory loss following an event occurs soon after the event. More specifically, the shape of the forgetting curve is a negatively decelerating function of time. This means that each time frame (whether measured in minutes, hours, or days) produces a greater loss in memory than the same time frame that follows it. Hence, more memory is lost in the first hour than in the second hour, more in the first day than the second day, more in the first week than in the second week, and so on. This forgetting function is one of the oldest phenomena in scientific psychology, dating back more than 100 years (e.g., Ebbinghaus 1885).

There are nevertheless two problems with making good practical use of the forgetting curve. First, although the shape of the curve is generally reliable, the absolute numeric quantities of memory loss that apply to a given time (e.g., after 1 day, 2 days, etc.) vary dramatically from situation to situation. For some situations (such as remembering a person's name), the percentage of memory loss might reach 50% after only a few minutes, for other situations (such as remembering the name of a movie) it might take a few months, and for other situations (such as remembering an old

phone number) it might take several years. The shape of the curve is presumed to be constant, but the time frame itself is not. The second problem is that the rate of forgetting is readily altered via rehearsal and related cognitive processes. A person's name might be readily forgotten (even within seconds) if an individual were distracted immediately after hearing the name or it might be retained for years if the individual rehearsed the name repeatedly and regularly over a long period of time.

In general, eyewitness identification experiments show that the elapsed time between witnessing an event and later identification accuracy is negatively correlated with accurate identifications and positively correlated with mistaken identifications (see Cutler and Penrod 1995; Shapiro and Penrod 1986). But this is one area that has not received a great deal of attention by eyewitness scientists. Most of the studies reviewed tended to compare identification performance after seconds or minutes with an hour or a day. There are little data on what happens after months or even weeks. Those in the legal system might think it curious that the passage of time has not been studied more by eyewitness identification researchers, but we suspect that there are two reasons for this. First, such studies are much more costly than the typical eyewitness identification experiment because they require relocating and retesting participant-witnesses months later. Second, we suspect that eyewitness identification researchers find the passage of time to be a relatively uninteresting variable because we obviously know the direction of the effect (memory does not get better with time). Accordingly, eyewitness researchers have generally been more interested in studying the effects of events that witnesses experience during the passage of time rather than the passage of time by itself. The important work of Elizabeth Loftus (1979), and the numerous researchers who have followed her lead in the study of post-event influences on memory, exemplifies this emphasis on studying the effects of events that occur during the memory retention interval.

Post-event influence refers to the fact that eyewitnesses' recollections of an event can be affected by "information" acquired well after the witnessing event has occurred. For example, after witnessing a clean-shaven person commit an act, participant-witnesses who were given information suggesting that he had a moustache incorporated that information into their later descriptions of the person (Loftus and Greene 1980). People will even extract information from questions in ways that change their later testimony. For instance, after viewing a car-pedestrian accident, people who were asked "Did another car pass the red Datsun while it was stopped at the stop sign?" were later much more likely to report that they saw a stop sign than were those not asked that question, even though it was a yield sign (Loftus et al. 1978). The point of post-event

influence as it relates to the time interval between the witnessed event and the identification is that greater amounts of time permit greater opportunity for post-event influences to affect memory: Detectives can inadvertently insert information into their questions, witnesses can have their memory contaminated by other witnesses, witnesses can glean "facts" from newspaper stories about the crime, and so on. Hence, it is not just forgetting that is a problem with the passage of time, it is also the fact that time passage permits events that can create changes in how the witness remembers the original event. Later, witnesses cannot effectively parse what they actually saw from what they might have acquired later.

Finally, it should be noted that there is an interaction between the passage of time and susceptibility to post-event influences. The longer the time between the witnessed event and the introduction of misleading post-event information, the greater the effect of the misleading information on witness's subsequent reports (Loftus et al. 1978).

The *Manson* Test in Light of the Science

Suggestive Procedures

The science clearly supports the Court's concern about the use of suggestive identification procedures. Mistaken identifications are readily obtained by procedures suggesting that the culprit is in the lineup (or failing to warn that he might not be), exposing the witness to an innocent person's image and later conducting an identification test with that person, and/or using fillers in lineups who fail to fit the description of the culprit. If eyewitness science and the courts have a difference of opinion about these suggestive procedures, it is probably in the effect-permanence of suggestive procedures. Specifically, courts seem to assume that a mistaken identification resulting from a suggestive procedure can somehow be corrected later by using a fair procedure. Even Justice Marshall, in his dissenting opinion in *Manson*, made a claim that strikes eyewitness scientists as implausible. Marshall stated:

Identification evidence ... can by its very nature be readily and effectively reproduced... when a prosecuting attorney learns that there has been a suggestive confrontation, he can easily arrange another lineup conducted under scrupulously fair conditions. Since the same factors are evaluated in applying both the Court's totality test and the *Wade-Simmons* independent-source inquiry, any identification which is "reliable" under the Court's test will support admission of evidence concerning such a fairly conducted lineup. The evidence of an additional, properly conducted confrontation will be more persuasive to a jury,

thereby increasing the chance of a justified conviction where a reliable identification was tainted by a suggestive confrontation. At the same time, however, the effect of an unnecessarily suggestive identification – which has no value whatsoever in the law enforcement process – will be completely eliminated (p. 128).

Eyewitness scientists, on the other hand, do not generally accept the idea that a mistaken identification, whether it arises from a suggestive procedure or not, can somehow be “erased” or corrected by a subsequent identification test, no matter how “fair” that subsequent test might be. This difference of view goes to the very heart of the Court’s conception of an “irreparable” error and accounts for why the Court would permit an in-court identification even if the suggestive out-of-court identification was suppressed. Eyewitness scientists generally believe that a mistaken identification taints the witness’ memory toward the identified person. There remains some debate as to precisely how this tainting occurs. For example, does a mistaken identification result in the identified person’s image *replacing* the witness’s memory of the actual culprit, or does it result in the formation of a *second* image that competes with the original memory, or does it result in a *blended* image that has features of the culprit plus features of the identified person? In any case, the initial mistaken identification is almost certain to be repeated in a second identification task.

The other way that psychological science might differ somewhat from the Court’s view of suggestive procedures is that psychological scientists have tended to construe of suggestive procedures somewhat more broadly than have the courts. The best example of this is the relatively recent but extensive work on the post-identification feedback. Whereas courts have shown concern with what the lineup administrator or others might say to the eyewitness immediately *before or during* the identification procedure, there has been almost no concern with what the lineup administrator might say to the eyewitness immediately *after* the witness makes a lineup choice. In effect, courts have tended to focus almost exclusively on suggestive aspects of the identification that might account for which person the eyewitness chose without a comparable concern for how the certainty of the eyewitness might have been manufactured by reactions from the lineup administrator (“Good, you got him!”). The certainty-inflating properties of this type of post-identification feedback can transform what might have been construed as no identification at all (“It might be number three, but I cannot say for sure”) to a robust positive identification (“There is no doubt in my mind”).

The DNA exoneration case of Ronald Cotton illustrates both the permanency of the mistake and the certainty inflation that comes from post-identification feedback. Jennifer Thompson was sexually assaulted and identified Ronald

Cotton from a photo lineup as being her attacker. At trial, she was positive in her identification of Cotton and gave profoundly convincing testimony about her view, the attention she paid to the physical characteristics of her attacker, and recounted her description that fit Cotton. However, it was not Ronald Cotton who sexually assaulted Jennifer Thompson, it was Bobby Poole. Cotton served 10½ years in prison before DNA exonerated Cotton. The DNA test also definitively implicated Poole. Interestingly, however, after Cotton’s conviction and before DNA testing there were credible suspicions that Poole was her attacker. Hence, a court-coordinated event was staged in which Poole was brought to the courtroom for Thompson to view and she was asked if Poole looked familiar to her. Thompson readily rejected Poole and indicated that she had never before seen the man. Even after DNA had exonerated Cotton and Thompson herself had accepted the fact that Poole was her attacker, she had no memory of Poole’s face and, when thinking back to the attack she says, “I still see Ronald Cotton.” (see <http://www.pbs.org/wgbh/pages/frontline/shows/dna/interviews/thompson.html>). Why was Thompson so certain? According to Thompson, “When I picked him out in the physical lineup and I walked out of the room, they looked at me and said, ‘That’s the same guy,’ I mean, ‘That’s the one you picked out in the photo.’ For me that was a huge amount of relief.” Why would Thompson be relieved if she had the certainty she came to express in her testimony, at the time she experienced the lineup identification? The post-identification feedback effect seems to be the explanation here. Had she been required to state her certainty at the time of the identification, prior to the confirmatory statement, it might have been clear that she was not certain. The point here is that suggestive procedures do not just happen during the identification procedure; they can also happen after the identification. And, suggestiveness effects are not restricted to explaining just the identification itself; suggestive procedures also can account for false certainty.

The Problem of Hidden Suggestiveness

One of the biggest problems in evaluating the suggestiveness of eyewitness identification procedures is that it is difficult and sometimes nearly impossible to establish that some forms of suggestive procedure occurred in the first place. The suggestive use of poor lineup fillers is readily discoverable (because a photo of the lineup or the photos used in a photo-lineup must be shown to the court) but many other forms of suggestiveness are not so readily discoverable. Here, we have a particular concern about ephemeral events, such as verbal and nonverbal “hints” from the lineup administrator, selective reinforcement of witness responses to various lineup members, failure to instruct the eyewitness orally that the culprit might not be

present, and other important suggestive matters that, unlike the photos themselves, have no visual record. Compounding the problem is the fact that the right to the presence of counsel at the identification is applicable only to live lineups that occur after judicial proceedings have commenced. More important for the current point is that the right to presence of counsel is never applicable to photo-arrays (U.S. v. Ash 1973).⁶ Because most initial identifications of criminal suspects are done with photographs (and a large percentage of jurisdictions in the U.S. use only photographs and never use live lineups), the discovery of any ephemeral suggestive events that were embedded in the photographic lineup remains almost entirely dependent on the testimony of the case detective and the witness. Often, it is unclear that the witness and the detective who administered the photographic lineup are properly motivated to report suggestiveness. But, even if the witness and detective are motivated to report any suggestiveness, they would have had to explicitly notice its significance at the time, interpret it as a suggestive event, remember it for the weeks or sometimes months that pass before being questioned, and then articulate it to the questioning party. The scientific psychology literature is replete with evidence supporting the conclusion that people are poor at being able to accurately report on the variables that influence their responses (e.g., Nisbett and Wilson 1977) and generally think that their actions are self-directed (e.g., Wegner 2002). The general point is that there are very good reasons to believe that the actual prevalence of suggestiveness in eyewitness identification procedures greatly exceeds the ability of defense counsel to prove it.

The Second Inquiry: The Reliability Test of Manson

Perhaps the most serious discrepancy between eyewitness science and *Manson* is evident in the second inquiry, which

⁶ From a constitutional law perspective, the right to the presence of counsel for live lineups but not for photographic lineups makes sense. Unlike a live lineup, the defendant himself is not present at a photographic lineup and, hence, he cannot assert a need for counsel's assistance on constitutional grounds. Furthermore, from a practical perspective, it would be difficult and burdensome to permit counsel at photographic lineups for several reasons, including: the suspect in a photo lineup is not likely to have a lawyer, police might not know how to contact the suspect as he might be at large, commonly the suspect has not been charged, and photo lineups often take place in the field (e.g., witness' home or place of business) on short notice. The fact that there is no constitutional right to legal counsel at photo lineups and the fact that practical problems largely prevent having defense counsel at photo lineups nevertheless do not make suggestive photo lineup procedures any less powerful or problematic. Hence, the urging by psychological scientists that photo lineups be administered using the double-blind procedure seems to be a logical solution to one of the more vexing problems in eyewitness identification evidence collection (Wells 1988; Wells et al. 1998).

comes into play when an identification procedure is found to be suggestive. The *Manson* criteria (view, attention, certainty, time, description) were meant to clarify the idea that the ultimate issue is the reliability of the identification, not suggestiveness per se. Reasonable people can disagree, but we believe that the Court's general conceptualization was appropriate and defensible. [Recall our earlier example of an abduction for which repeated views and attention are perhaps so extreme that a suggestive identification procedure is not a likely issue.] Hence, in theory we see no reason why a set of criteria could not be justifiably used to trump concerns about a suggestive identification procedure if memory is very strong and suggestiveness somewhat weak. The problem is that almost no cases are this clear. Consider, for instance, Justice Marshall's accounting of Glover's view and attention that the majority of the Court nevertheless found sufficient to trump the suggestiveness of the single-photo identification procedure. In fact, federal courts under the logic of *Manson* have applied the *Manson* reliability test to dismiss profoundly suggestive identifications when the eyewitness observed the gunman's face for 2 or 3 s from underneath a table and was not certain in her identification until she was heavily coached and told by detectives that she had the right man (*United States v. Wong* 1994). Even for identifications that occurred months later and were based on viewings that lasted only seconds, highly suggestive procedures have been found acceptable based on the application of *Manson* reliability factors (e.g., *State v. Johnson* 2005).

Although we do not take issue with the broad assumption of the *Manson* Court that some set of reliability factors might justifiably trump concerns about suggestiveness in a given case, the science on the five factors in *Manson* points to very serious problems. First, none of the five criteria are unequivocally related to the accuracy of identifications. But, the most serious problem is that three of the five criteria (certainty, view, and attention) are self-reports by the eyewitnesses and these self-reports are themselves products of suggestive procedures.

The failure of the three self-reported *Manson* criteria to be independent of the suggestive procedure creates an "ironic test" in the second inquiry. Figure 1 depicts the nature of the irony. In the top panel of Fig. 1 is the "ideal" of *Manson*. In this ideal, the suggestive procedure only has a chance to affect the witness' identification decision. The *Manson* reliability test is used to see if factors such as view, attention, and certainty are strong enough to be unconcerned about the suggestiveness. The presumption in the ideal is that these self-report *Manson* factors are pristine reports. The bottom panel represents the reality of *Manson*. The reality of *Manson* is that the suggestive procedure can affect not only the identification decision, but also affect the witness' self-reports on the *Manson* factors. This strikes us as an ironic test because these

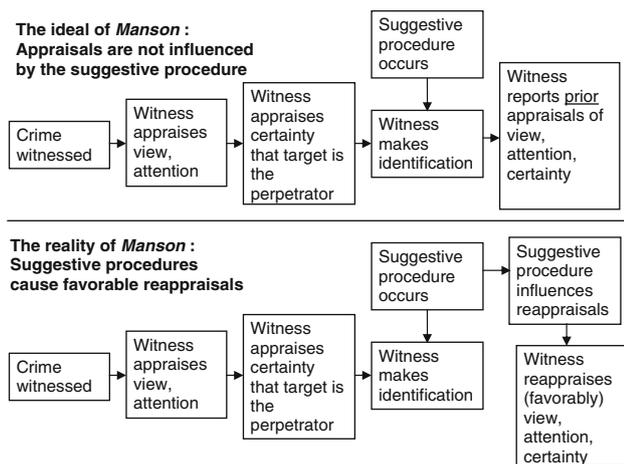


Fig. 1 The irony of Manson: suggestive procedures, which could cause a mistaken identification, also cause inflated standing on Manson factors, which leads to a conclusion that suggestive procedures are outweighed by good standing on Manson factors

Manson reliability factors come into consideration by courts under precisely the circumstances in which they are least likely to be indicators of reliability due to their having been distorted by the suggestive procedure itself.

Another way to describe this is to say that the three self-report *Manson* criteria can be mere indicators of the power of the suggestive procedure rather than indicators of the notion that the suggestive procedure was not a problem in this instance. Moreover, careful questioning at the *Manson* hearing is not likely to get around this problem. After making mistaken identifications and receiving confirming feedback, experimental witnesses were asked if the feedback affected how they answered questions about their certainty, view, and attention (Wells and Bradfield 1998). Most denied that it had any effect even though they were just as affected as the minority who admitted that it might have had an effect.

Deterrence Implications

The *Manson* Court was justifiably concerned with the question of whether application of the *Manson* test would effectively deter police from using suggestive procedures. The majority, although acknowledging that the *per se* approach had the stronger deterrent effect, nevertheless concluded that the totality approach contained in *Manson* would serve the deterrent function:

Although the *per se* approach has the more significant deterrent effect, the totality approach also has an influence on police behavior. The police will guard against unnecessarily suggestive procedures under the totality rule, as well as the *per se* one, for fear that their actions will lead to the exclusion of identifications as unreliable (p. 113).

Justice Marshall did not directly argue that the *Manson* approach would be an ineffective deterrent, instead noting his clear preference for the deterrent effect of the *per se* exclusion rule:

Deterrence of police use of unnecessarily suggestive identification procedures favors the *per se* rule. Indeed, it does so heavily; for such a rule would make it unquestionably clear to the police they must never use a suggestive procedure when a fairer alternative is available. I have no doubt that conduct would quickly conform to the rule (p. 126).

The science we have reviewed here is relevant to the issue of deterrence. For deterrence to work, the use of a suggestive procedure must lower the chances that the witness will receive a passing score in the second inquiry of *Manson*. But, as we have seen, the suggestive procedure actually raises the scores of the witness in the second inquiry of *Manson*. As a result, there is almost no threat of exclusion resulting from the use of suggestive procedures. In other words, the inflated certainty, statement of view, and statement of attention resulting from suggestive procedures effectively guards against exclusion, thereby undermining incentives to avoid suggestive procedures.

We believe a case can be made that the *Manson* approach not only undermines incentives to avoid suggestive procedures but also provides an incentive to use suggestive procedures. As any police officer knows, the ideal witness for purposes of obtaining a prosecution is one who is certain and who describes the witnessing conditions in a favorable light. If the *Manson* hearing is not going to result in the exclusion of the identification anyway, then why not use suggestive procedures to make sure that the witness not only picks the suspect but also expresses high certainty, reports an exaggeratedly good view, and claims to have paid close attention? We recognize that this analysis might appear cynical or accusatory. We do not intend it to be so. Police are just people and people respond to contingencies and incentives, often without an explicit awareness of what they are doing or why they are doing it. A justice motive, resulting from a belief that they have the right person and need to help the witness along, might very well be behind the continued prevalence of suggestive procedures. But, as long as the *Manson* test continues to be applied the way it is today, there is no reason to expect the contingencies and incentives themselves to somehow reduce the use of suggestive identification procedures.

Problems in the Application of Manson

Although the logic of *Manson* is flawed because of the ways that suggestive procedures affect three of the five *Manson* criteria, the problem is often compounded in the

ways that lower courts apply the criteria. Consider, for instance the certainty criterion. We find it very interesting that *Manson* (and its predecessor *Biggers*) clearly stated that the certainty criterion referred to the “certainty demonstrated at the confrontation.” The key phrase here is “at the confrontation,” by which the court presumably meant *at the time of identification*. It is unclear to us whether the Court was prescient on this point or was simply turning a phrase, but we prefer to believe that the Court understood that the certainty expressed by the witness has some diagnostic properties *at the time of identification* and that expressions of certainty later (e.g., after learning reactions of the lineup administrators) might be indicators of something other than the reliability of the witness’ memory. This is precisely what eyewitness scientists have discovered, as we noted in an earlier section of this article. Given no feedback at all, a witness’ expression of certainty at the moment of the identification is in fact correlated (albeit imperfectly) with the accuracy of the identification. But, later expressions of certainty are the product of numerous non-memorial sources, such as the witness’ beliefs about other evidence against the accused or their beliefs about what others believe. And yet, during a *Manson* hearing, judges often accept the witness’ current certainty statement or the witness’ retrospections about how certain they recall being when they made their identification. Eyewitness science has shown how these retrospections are distorted by “information” that the witness picks up after the identification, but courts treat them as though they were pristine indicators of the level of uncertainty that the eyewitness had at the time of identification. In some jurisdictions, police will not collect a certainty statement at the time of identification if the witness seems uncertain because they know that the witness will become more certain at a later point in time, especially after they have been reassured that they identified the “right” guy. As a result, the courts are robbed of any reliable record of uncertainty that the witness might have had “at the time of the confrontation.” Hence, in this respect, the *Manson* criteria themselves are better than the way they are often applied.

A related problem often occurs with descriptions. It seems to us that the Court clearly intended that the prior description of the criminal be exactly that: a *prior* description. And yet, courts sometimes permit the use of descriptions given after the identification or after having viewed the defendant in court. Not surprisingly, later descriptions tend to become more detailed and become more consistent with the identified person. It is difficult to keep these post-computed descriptions out when the witness says, “I had forgotten about the scar...but as I thought about it further and cast my mind back...” It might be difficult to keep the eyewitness from giving this “new” description at trial, but in a pre-trial *Manson* hearing the

description could easily be restricted to what the witness described *before* seeing the suspect in a lineup.

Another problem with how the *Manson* criteria are actually used is that some criteria are relegated to a “nevertheless” status as long as the witness looks strong on some other criterion. In general, it appears that any of the criteria can be low and yet the witness passes the reliability test as long as the witness is certain. Consider the time-since-witnessing factor. *Biggers* was identified 7 months after the crime, *nevertheless* the witness was certain, and hence the identification was permitted. Consider the view factor. In a 1997 case, a man was convicted of murder based on the highly certain identification testimony of someone who was 450 feet away, which exceeds the capability of the human visual system (Loftus and Harley 2005). Consider the attention factor. In *State v. Ledbetter* (1981) the court said that even a “fleeting glance” might be sufficient and noted the high level of certainty of the witness to justify admission of the identification. If there is no level of attention, view, or passage of time that is so poor that the identification is excluded (as long as the witness is certain), then perhaps the criteria are just too flexible to be meaningful. It raises the serious question of whether the *Manson* criteria are too easily applied in an outcome-oriented manner in which the desired outcome (I want to admit this evidence) can be achieved in virtually every instance.

Alternatives to *Manson*

The primary purpose of this article is to articulate the problem in *Manson* and stimulate a dialog rather than propose a specific solution. And, it would be foolish to believe that there is a solution that will prevent all wrongful eyewitness-based convictions and still serve well the interests of convicting the guilty. Nevertheless, *Manson* is flawed and it is not at all foolish to think that we could do better.

In fact, whereas the U.S. Supreme Court has said nothing about eyewitness identification issues since the *Manson* decision in 1977, some state courts have recognized that *Manson* is simply not satisfactory for their jurisdictions. Kansas (*State v. Hunt* 2003) and Utah (*State v. Ramirez* 1991) have refined the *Manson* test to use criteria they think are more in line with the social science literature. New York (*Commonwealth v. Johnson* 1995) and Massachusetts (*People v. Adams* 1981) require automatic suppression of unnecessarily suggestive procedures. Wisconsin (*State v. Dubose* 2005) requires suppression of show-ups unless it was necessary under the circumstances. Connecticut (*State v. Ledbetter* 2005) now mandates a jury instruction if police failed to give the “might or might not

be present” pre-lineup instruction to the eyewitness. The Georgia Supreme Court has now directed trial courts to cease instructing jurors to consider the eyewitness’ confidence in evaluating the testimony (Brodes v. State 2005). These are all, in their own ways, well-reasoned repudiations of at least some aspects of *Manson*.

United States Attorney General Janet Reno took careful note of the DNA exonerations that first began to unfold during her tenure in the 1990s. Reno recognized that existing safeguards (that include *Manson*) have failed to prevent convictions of the innocent and, importantly, that more than three-quarters of these exonerations are cases of mistaken identification. Accordingly, she convened eyewitness experts, law enforcement officers, and prosecutors to develop a set of guidelines for law enforcement intended to avoid suggestive eyewitness identification procedures. The result, *Eyewitness Evidence: A Guide for Law Enforcement*, was published in 1999 and distributed to every law enforcement agency in the United States. Although the Guide has good procedural recommendations for how to conduct non-suggestive identification procedures, it has no force of law behind it. And, given the incentives for continuing to use suggestive procedures (suggestive procedures make it more likely that the witness will make an identification and suggestive procedures bolster witness certainty) plus the absence of incentives to avoid suggestive procedures (an identification obtained with a suggestive procedure will virtually always pass the *Manson* test), there is little reason for police to actually follow the Guide. In effect, *Manson* tends to stand in the way of progress toward eliminating suggestive eyewitness identifications. In light of the social science, which has demonstrated the power of suggestive procedures and articulated ways to avoid suggestiveness, as well as the prevalence of DNA exonerations, which are predominantly cases of mistaken identification, it is time for the Court to consider alternatives to *Manson*.

Alternatives to *Manson* should have several characteristics that are absent in *Manson*. First, unlike *Manson*, they must provide an incentive to avoid suggestive procedures and never reward suggestive ones. This means that there has to be some real threat of suppression or some other cost to the government when unnecessarily suggestive procedures are used. Second, alternatives to *Manson* must recognize that suggestive procedures, whether unnecessary or not, confound the fact-finding process and require a much deeper analysis than the check-listing heuristic that characterizes *Manson*. Third, whatever the criteria for deciding to admit a suggestive identification, those criteria need to be independent of the suggestive procedure itself, which means that self-reports of the eyewitness are not likely to ever be good criteria unless it can be shown that they were assessed prior to the suggestive event.

Per se Exclusion?

Clearly, one approach would be a return to the per se exclusion idea in which unnecessarily suggestive procedures result in exclusion without consideration of the notion that the identification might nevertheless be reliable. In fact, however, it is unclear that this type of per se exclusion was ever endorsed by the Court. Although the Court’s 1967 Wade trilogy (*United States v. Wade* 1967; *Gilbert v. California* 1967; *Stovall v. Denno* 1967) seemed to endorse a per se exclusion notion, the Court made it clear the following year that the over-riding issue was whether it was likely that the eyewitness misidentified the suspect (*Simmons v. United States* 1968). Hence, the idea that reliability (rather than suggestiveness) is the ultimate issue was in place even before *Biggers* and *Manson*.

The great advantage of some version of per se exclusion is that it would largely jettison unnecessarily suggestive practices. It has become increasingly clear that police take directions from prosecutors on eyewitness identification procedural issues because it is the prosecutors who have to make the evidence work in court (Wells et al. 2000). A prosecutor who experiences an exclusion based on unnecessarily suggestive procedures is likely to pressure police to make systemic reforms. In fact, there are now well-articulated systems for eyewitness identification procedures based on the available science, including a guide from the National Institute of Justice (Technical Working Group for Eyewitness Evidence 1999), and these are readily adaptable to individual jurisdictions across the country. Given what is known today and the development of workable systems to prevent suggestive procedures, it is unclear why unnecessarily suggestive procedures persist except for the fact that *Manson* has not created the proper incentives.

Despite the strong incentive to clean up suggestive procedures inherent in a per se exclusion approach, there are two primary reasons to not favor a hard and fast per se exclusion approach. First, witnessing conditions can exist that would make the use of a suggestive procedure a moot consideration because the strength of the witness’ memory would outweigh the suggestiveness factors (recall our abduction example). Clearly, per se exclusion in this particular situation would result in a guilty person going free. Second, even if a per se exclusion approach were adopted, it would apply only to cases in which the procedure was *unnecessarily* suggestive. But, from a scientific perspective, whether the suggestive procedure was necessary or not necessary has no bearing at all on the power of the suggestive procedure to induce mistaken identifications. Accordingly, the fact that a lineup was not possible and, therefore, a show-up was necessary (*Stovall v. Denno* 1967) does not make the show-up any less powerfully suggestive. What is needed is an approach that helps

protect against mistaken identification regardless of whether the suggestive procedure was necessary or not.

Shift of Burden with Special Onus in the Context of Suggestive Procedures?

The current approach in *Manson* is one in which the defense must request a hearing on the identification and attempt to show that the identification was not reliable. The burden clearly rests with the defense to show that the identification was not reliable and failure to do so results in admission of the identification evidence. But, it is unclear why the burden rests with the defense to show unreliability rather than with the prosecution to show reliability. It is unlikely that a shift in burden would matter much to the prosecution, of course, as long as the prosecution was able to continue to use the current *Manson* criteria in the context of trumping suggestive procedures.

Under the shift-of-burden notion, the prosecution would have to make the case that the identification was reliable regardless of whether a suggestive procedure was necessary or unnecessary. The irrelevance of the “necessity” aspect of suggestive procedures seems to us to comport better with the Court’s own reasoning on these matters that “reliability is the linchpin in determining the admissibility of identification testimony” along with our observation that the power of suggestive procedures is not moderated by whether the suggestiveness was necessary.

In the context of a suggestive procedure, the prosecution would not be able to make the case for reliability based on certainty, view, or attention statements of the witness unless it could be demonstrably shown that these self-reports were reliable. This means that the onus would be on the prosecution to find evidence of reliability that is independent of the suggestive procedure.

This disallowance of witness self-reports would likely permit many highly suggestive identifications, such as our hypothetical of the abducted person, because the case for a reliable memory can clearly be established through known facts (e.g., the abducted witness clearly had long and repeated view of the culprit). However, due to the presence of suggestive procedures and the absence of such obviously reliable circumstances, the onus on the prosecution would be significantly greater than currently exists. One of the effects is likely to be to pressure police to collect statements from witnesses regarding their viewing conditions and attention early in the investigation, prior to the possibility of suggestive influences, a good practice that too often does not occur. Prosecutors can then use these statements to support the reliability claim even if there is a later suggestive procedure because the statements were obtained prior to the suggestive event. Notice as well the deterrent properties of this approach because the ability to

use certainty, view, and attention statements (or other self-reports by the eyewitness) to show reliability are precluded when they are obtained subsequent to a suggestive procedure. The result would be a diminution of suggestive eyewitness identification procedures in the U.S. criminal justice system.

Limits to Testimony

Another approach would be to consider limits to the testimony of the eyewitness in cases where outright exclusion is too extreme of a remedy. Suppose, for instance, that the eyewitness received confirming feedback at the lineup and the certainty statement was taken *after* the feedback. A judge might rule that the witness could testify about the identification, but could not testify about his or her certainty. Likewise, suppose that an eyewitness gave a vague pre-lineup description of the culprit but began to give descriptions that are more detailed after the identification. A judge could rule that the witness can testify as to the pre-lineup description but not the post-lineup description. Alternatively, suppose that a witness made a tentative identification and then was shown a second lineup in which the only person in common was the defendant and positively identified him. A judge could rule that testimony regarding the initial tentative identification could be used at trial, but the second (more certain) identification could not become part of the testimony. Every case would be a different set of facts, but the point is that total exclusion is not the only option in some cases.

Jury Instructions

Another alternative to exclusion is for the judge to instruct the jury that the presence of a suggestive identification procedure lessens the reliability of the identification testimony and this can be legitimately considered in assessing the reliability of that testimony. Although defense attorneys can always make their own arguments to the jury regarding suggestive identification procedures, defense arguments ring hollow in juries’ ears and appear as mere ploys. The jury instruction alternative to *Manson* that is envisioned here is quite different from the *Telfaire* instruction (*U.S. v. Telfaire, 1979*). In mock jury studies, eyewitness scientists have not found the *Telfaire* instruction to be an effective safeguard (see Chapter 17 of Cutler and Penrod 1995). But, *Telfaire* itself is based on the *Manson* factors. Furthermore, the *Telfaire* approach assumes that there is some generic set of statements that can be given to a jury in any eyewitness identification case (i.e., not in any way tailored to the specific case). The jury instruction alternative we are discussing here is one in which the instruction is tailored to the specifics of the case. So, for instance, if the court found

that a particular feature of the identification procedure was suggestive, the jury would be told about the suggestive feature and instructed that the suggestive feature can be considered in evaluating the likely accuracy of the eyewitness. If post-identification feedback was given to the eyewitness before securing a certainty statement, for instance, the jury might be instructed “Research has shown that suggestions to an eyewitness that they identified the ‘right’ person can lead them to recall that they were certain all along even if they were not. You can consider this as a possible factor in deciding whether the witness really was certain when she made her identification.” Whether jury instructions of this sort will have much impact on the jury is an open question, but it is likely to serve a deterrent function because prosecutors, who are motivated to keep such instructions away from the jury, will likely help bring pressure back on their police departments to avoid suggestive procedures in the future.

Final Remarks about Alternatives to Manson

The *Manson* approach is predicated on the concept of *postdiction*.⁷ Postdicting eyewitness identification accuracy has proven to be extremely difficult and precarious (see review by Caputo and Dunning 2006). Perhaps the most promising of the postdictors is decision time. Research consistently shows that accurate identifications from lineups are made faster than are mistaken identifications (e.g., Dunning and Perretta 2002; Dunning and Stern 1994; Smith et al. 2000; Sporer 1993; Stern and Dunning 1994; Weber et al. 2004). Note that this decision time refers to situations in which the witness is unaware that time is being measured and it refers to actual time, not self-reports by the eyewitness. Because these decision times are not self-reports, they avoid many of the problems that we have discussed about certainty, attention, and view. Of course, such data are not being collected in actual cases and this would require the use of new equipment and controlled environments. Furthermore, the relation between decision time and accuracy is not as useful as it might first appear because what constitutes a short time and a long time depends on numerous variables, including the presence or absence of suggestive procedures themselves (Weber et al. 2004).

In casting the forgoing paragraph, we were struck by our own observation that the measurement of decision time

would require police to acquire and implement new equipment that would measure decision time. This sets up our final observation about alternatives to *Manson*. Why do we not simply take the extra care needed to jettison unnecessarily suggestive procedures in the first place? We have provided a partial answer to this question when we analyzed the deterrent function of *Manson* and concluded that its deterrent value was largely absent (because the reliability factors routinely trump suggestiveness), and in fact the incentives for police and prosecutors might actually favor the maintenance of suggestive procedures (because they yield more identifications of the suspect and higher levels of certainty). But, serious questions need to be raised about why the courts are being so passive and accommodating in continually being asked to make rulings on unnecessarily suggestive procedures with these *Manson* hearings. Why are courts so tolerant of unnecessarily suggestive procedures that raise the chances of mistaken identification, waste the time of the court, and intrude on everyone’s sense of a fair identification procedure? Today, police carry out very complex evidence collection procedures with physical evidence such as blood, hair, and fiber that have to conform to precise protocols and careful documentation. Clearly, police would be capable of carrying out careful non-suggestive protocols with eyewitness identification evidence as well if courts were more assertive in demanding it.

Concluding Comments

Manson was a reasonable proposition in 1977, but we know much more today. *Manson* lacks the architecture to serve two functions intended by the court, namely the safeguard against wrongful convictions function and the incentive to avoid suggestive procedures function. Both biological science (via DNA) and social science (via eyewitness identification experiments) have shed new light on the eyewitness identification errors and have revealed these errors to be much more prevalent than the 1977 Court could have surmised. Now, 30 years later, we are all wiser. In a joint effort between social science and the law, we should be able to create a system that provides stronger incentives to eliminate unnecessarily suggestive procedures without excluding reliable identifications. We now know that the *Manson* approach is not such a system.

References

- Bartlett, J. C., & Memon, A. (2006). Eyewitness memory of young and older eyewitnesses. In R. C. L. Lindsay, D. F. Ross, J. D. Read, & M. P. Toglia (Eds.), *Handbook of eyewitness psychology: Memory for people* (pp. 309–338). Mahwah, NJ: Lawrence Erlbaum Associates.

⁷ Postdiction is a term that psychological scientists have used to refer to “backward predictions” in which some set of facts currently available is used to estimate the chances that something happened in the past. Scientific experiments are perfectly suited for the establishment of cause-effect relations but generally ill-suited for real-world postdiction because these postdictions require knowledge of base rate statistics and multi-colinearities that are unknown and, in many cases, unknowable (Seelau and Wells 1995).

- Behrman, B. W., & Davey, S. L. (2001). Eyewitness identification in actual criminal cases: An archival analysis. *Law and Human Behavior, 25*, 475–491.
- Behrman, B. W., & Richards, R. E. (2005). Suspect/foil identification in actual crimes and in the laboratory: A reality monitoring analysis. *Law and Human Behavior, 29*, 279–301.
- Bower, G. H., & Karlin, M. B. (1974). Depth of processing pictures of faces and recognition memory. *Journal of Experimental Psychology, 103*, 751–757.
- Bradfield, A. L., & Wells, G. L. (2000). The perceived validity of eyewitness identification testimony: A test of the five Biggers criteria. *Law and Human Behavior, 24*, 581–594.
- 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.
- Brigham, J. C., & Cairns, D. L. (1988). The effect of mugshot inspections on eyewitness identification accuracy. *Journal of Applied Social Psychology, 18*, 1394–1410.
- Brodes v. State. (2005). 614 S.E.2d 766, Georgia.
- Caputo, D., & Dunning, D. (2006). Distinguishing accurate identifications from erroneous ones: Post-dictive indicators of eyewitness accuracy. In R. C. L. Lindsay, D. F. Ross, J. D. Read, & M. P. Toglia (Eds.), *Handbook of eyewitness psychology: Memory for people* (pp. 427–451). Mahwah, NJ: Lawrence Erlbaum Associates.
- Clark, S. E. (2005). A re-examination of the effects of biased lineup instructions in eyewitness identification. *Law and Human Behavior, 29*, 395–424.
- Clark, S. E., & Tunnicliff, J. L. (2001). Selecting lineup foils in eyewitness identification: Experimental control and real-world simulation. *Law and Human Behavior, 25*, 199–216.
- Commonwealth v. Johnson*. (1995). 650 N.E. 2d, 1257, Mass.
- Connors, E., Lundregan, T., Miller, N., & McEwan, T. (1996). *Convicted by juries, exonerated by science: Case studies in the use of DNA evidence to establish innocence after trial*. Alexandria, VA: National Institute of Justice.
- Cutler, B. L., & Penrod, S. D. (1995). *Mistaken identification: The eyewitness, psychology, and the law*. New York: Cambridge University Press.
- Cutler, B. L., Penrod, S. D., & Stuve, T. E. (1988). Juror decision making in eyewitness identification cases. *Law and Human Behavior, 12*, 41–55.
- 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.
- Dixon, S., & Memon, A. (2005). The effect of post-identification feedback on the recall of crime and culprit details. *Applied Cognitive Psychology, 19*, 935–951.
- Douglas, A. B., & McQuiston-Surrett, D. M. (2006). Post-identification feedback: Exploring the effects of sequential photospreads and eyewitnesses awareness of the identification task. *Applied Cognitive Psychology, 20*, 991–1007.
- Douglas, A. B., & Steblay, N. (2006). Memory distortion in eyewitnesses: A meta-analysis of the post-identification feedback effect. *Applied Cognitive Psychology, 20*, 859–869.
- Doyle, J. M. (2005). *True witness: Cops, courts, science, and the battle against misidentification*. New York: Palgrave Macmillan.
- Dunning, D., & Perretta, S. (2002). Automaticity and eyewitness accuracy: A 10–12 s rule for distinguishing accurate from inaccurate positive identifications. *Journal of Applied Psychology, 87*, 951–962.
- Dunning, D., & Stern, L. B. (1994). Distinguishing accurate from inaccurate identifications via inquiries about decision processes. *Journal of Personality and Social Psychology, 67*, 818–835.
- Ebbinghaus, H. E. (1885). *Memory: A contribution to experimental psychology*. New York: Dover, 1964.
- Fox, S. G., & Walters, H. A. (1986). The impact of general versus specific expert testimony and eyewitness confidence upon mock juror judgment. *Law and Human Behavior, 10*, 215–228.
- Gilbert vs. California*. (1967). 388 U.S. 263.
- Gorenstein, G. W., & Ellsworth, P. C. (1980). Effect of choosing an incorrect photograph on a later identification by an eyewitness. *Journal of Applied Psychology, 65*, 616–622.
- Hafstad, G. S., Memon, A., & Logie, R. (2004). Post-identification feedback, confidence and recollections of witnessing conditions in child witnesses. *Applied Cognitive Psychology, 18*, 901–912.
- Harley, E. M., Carlsen, K. A., & Loftus, G. R. (2004). The “saw-it-all-along” effect: Demonstrations of visual hindsight bias. *Journal of Experimental Psychology: Learning, Memory, and Cognition, 30*, 960–968.
- Haw, R. M., & Fisher, R. P. (2004). Effects of administrator-witness contact on eyewitness identification accuracy. *Journal of Applied Psychology, 89*, 1106–1112.
- Hinz, T., & Pezdek, K. (2001). The effect of exposure to multiple lineups on face identification accuracy. *Law and Human Behavior, 25*, 185–198.
- Junkin, T. (2004). *Bloodsworth: The true story of the first death row inmate exonerated by DNA*. Chapel Hill: Algonquin.
- Kahneman, D. (1973). *Attention and effort*. Englewood Cliffs, NJ: Erlbaum.
- Lindsay, R. C. L., & Malpass, R. S. (1999). Measuring lineup fairness [Special issue]. *Applied Cognitive Psychology, 13*, S1–S7.
- Lindsay, R. C. L., & Wells, G. L. (1980). What price justice? Exploring the relationship between lineup fairness and identification accuracy. *Law and Human Behavior, 4*, 303–314.
- Loftus, E. F. (1979). *Eyewitness testimony*. Cambridge, MA: Harvard University Press.
- Loftus, E. F., & Doyle, J. M. (1997). *Eyewitness testimony: Civil and criminal*. Charlottesville, VA: Lexis law Publishing.
- Loftus, E. F., & Greene, E. (1980). Warning: Even memory for faces may be contagious. *Law and Human Behavior, 4*, 323–334.
- Loftus, E. F., Loftus, G. R., & Messo, J. (1987). Some facts about “weapon focus”. *Law and Human Behavior, 11*, 55–62.
- Loftus, E. F., Miller, D. G., & Burns, H. J. (1978). Semantic integration of verbal information into visual memory. *Journal of Experimental Psychology: Human Learning and Memory, 4*, 19–31.
- Loftus, G. R., & Harley, E. M. (2005). Why is it easier to identify someone close than far away? *Psychonomic Bulletin and Review, 12*, 43–65.
- Malpass, R. S. (1981). Effective size and defendant bias in eyewitness identification lineups. *Law and Human Behavior, 5*, 299–309.
- Malpass, R. S., & Devine, P. G. (1981). Eyewitness identification: Lineup instructions and the absence of the offender. *Journal of Applied Psychology, 66*, 482–489.
- Manson v. Braithwaite*. (1977). 432 U.S. 98.
- Mecklenburg, S. (2006). *Addendum to the report to the legislature of the State of Illinois: The Illinois pilot program on sequential double-blind identification procedures*. Retrieved February 20, 2008 from <http://www.chicagopolice.org/Addendum%20to%20IP-Report.pdf>.
- Morgan, C. A., Hazlett, G., Doran, A., Garrett, S., Hoyt, G., Thomas, P., Baranoski, M., & Southwick, S. M. (2004). Accuracy of eyewitness memory for persons encountered during exposure to highly intense stress. *International Journal of Psychiatry and the Law, 27*, 265–279.
- Neil v. Biggers*. (1972). 409 U.S. 188.
- Neuschatz, J. S., Preston, E. L., Burkett, A. D., Toglia, M. R., Lampinen, J. M., Neuschatz, J. S., Fairless, A. H., Lawson, D. S., Powers, R. A., & Goodsell, C. A. (2005). The effects of

- post-identification feedback and age on retrospective eyewitness memory. *Applied Cognitive Psychology*, 19, 435–453.
- Nisbett, R. E., & Wilson, T. D. (1977). Telling more than we can know: Verbal reports on mental processes. *Psychological Review*, 84, 231–259.
- Patterson, K. E., & Baddeley, A. D. (1977). When face recognition fails. *Journal of Experimental Psychology: Human Learning and Memory*, 3, 406–407.
- Penrod, S. (2005). Eyewitness identification evidence: How well are witnesses and police performing? *Criminal Justice Magazine*, 54, 36–47.
- People v. Adams*. (1981). 423 N.E. 2d, 379 (NY).
- Phillips, M. R., McAuliff, B. D., Kovera, M. B., & Cutler, B. L. (1999). Double-blind photoarray administration as a safeguard against investigator bias. *Journal of Applied Psychology*, 84, 940–951.
- Pigott, M. A., & Brigham, J. C. (1985). Relationship between accuracy of prior description and facial recognition. *Journal of Applied Psychology*, 70, 547–555.
- Pozzulo, J. (2006). Person description and identification by child eyewitnesses. In R. C. L. Lindsay, D. F. Ross, J. D. Read, & M. P. Toglia (Eds.), *Handbook of eyewitness psychology: Memory for people* (pp. 283–308). Mahwah, NJ: Lawrence Erlbaum Associates.
- Rosenthal, R. (2002). Covert communication in classrooms, clinics, courtrooms, and cubicles. *American Psychologist*, 57, 838–849.
- Rosenthal, R., & Rubin, D. B. (1978). Interpersonal expectancy effects: The first 345 studies. *Behavioral and Brain Sciences*, 3, 377–386.
- Russano, M. B., Dickinson, J. J., Greathouse, S. M., & Kovera, M. B. (2006). “Why don’t you take another look at number three?” Investigator knowledge and its effects on eyewitness confidence and identification decisions. *Cardozo Public Law, Policy, and Ethics Journal*, 4, 355–379.
- Sarason, I. G., & Stroops, R. (1978). Test anxiety and the passage of time. *Journal of Consulting and Clinical Psychology*, 46, 102–108.
- Scheck, B., Neufeld, P., & Dwyer, J. (2000). *Actual innocence*. New York: Random House.
- Semmler, C., & Brewer, N. (2006). Post-identification feedback effects on face recognition confidence: Evidence for metacognitive influences. *Applied Cognitive Psychology*, 20, 895–916.
- Semmler, C., & Brewer, N. (2007). *Assessing the reliability of eyewitness identification evidence: The influence of metacognitive factors*. Paper presented at the 3rd International Congress of Psychology and Law, Adelaide, Australia.
- Semmler, C., Brewer, N., & Wells, G. L. (2004). Effects of postidentification feedback on eyewitness identification and nonidentification. *Journal of Applied Psychology*, 89, 334–346.
- Shapiro, P. N., & Penrod, S. (1986). Meta-analysis of facial identification studies. *Psychological Bulletin*, 100, 139–156.
- Seelau, S. M., & Wells, G. L. (1995). Applied eyewitness research: The other mission. *Law and Human Behavior*, 19, 317–322.
- Shiffman, H. R., & Bobko, D. J. (1975). Effects of stimulus complexity on the perception of brief temporal intervals. *Journal of Experimental Psychology*, 103, 156–159.
- Simmons v. United States*. (1968). 390 U.S. 385, 88 S. Ct. 967, 971.
- Skagerberg, E. M. (2007). Co-witness feedback in lineups. *Applied Cognitive Psychology*, 21, 489–497.
- Slater, A. (1994). *Identification parades: A scientific evaluation*. Police Research Award Scheme. London: Police Research Group, Home Office.
- Smith, S. M., Lindsay, R. C. L., & Pryke, S. (2000). Postdictors of eyewitness errors: Can false identification be diagnosed? *Journal of Applied Psychology*, 85, 542–550.
- Sporer, S. L. (1993). Eyewitness identification accuracy, confidence, and decision times in simultaneous and sequential lineups. *Journal of Applied Psychology*, 78, 22–33.
- Sporer, S., Penrod, S., Read, D., & Cutler, B. L. (1995). Choosing, confidence, and accuracy: A meta-analysis of the confidence-accuracy relation in eyewitness identification studies. *Psychological Bulletin*, 118, 315–327.
- State v. Dubose*. (2005). 699 N.W.2d 582, Wisconsin.
- State v. Hunt*. (2003). 69 P.3d 571, Kansas.
- State v. Johnson*. (2005). 836 N.E. 2d., Ohio.
- State v. Ledbetter*. (1981). 441, A.2d 595, Connecticut.
- State v. Ledbetter*. (2005). 881 A.2d 290, Connecticut.
- State v. Ramirez*. (1991). 817 P.2d 774, 780–81, Utah.
- Stebly, N. M. (1992). A meta-analytic review of the weapon focus effect. *Law and Human Behavior*, 16, 413–424.
- Stebly, N. M. (1997). Social influence in eyewitness recall: A meta-analytic review of lineup instruction effects. *Law and Human Behavior*, 21, 283–298.
- Stebly, N. M., Dysart, J., Fulero, S., & Lindsay, R. C. L. (2003). Eyewitness accuracy rates in police showup and lineup presentations: A meta-analytic comparison. *Law and Human Behavior*, 27, 523–540.
- Stern, L. B., & Dunning, D. (1994). Distinguishing accurate from inaccurate eyewitness identifications: A reality monitoring approach. In D. F. Ross, J. D. Read, & M. P. Toglia (Eds.), *Adult eyewitness testimony: Current trends and developments* (pp. 273–299). New York: Cambridge University Press.
- Stovall v. Denno*. (1967). 388 U.S. 293.
- Technical Working Group for Eyewitness Evidence. (1999). *Eyewitness evidence: A guide for law enforcement*. Washington, DC: United States Department of Justice, Office of Justice Programs.
- U.S. vs. Ash*. (1973). 413 U.S. 300.
- U.S. vs. Telfaire*. (1979). 469 F.2d 552.
- U.S. vs. Wade*. (1967). 388 U.S. 218.
- U.S. v. Wong*. (1994). 40 F.3d.
- Valentine, T., Pickering, A., & Darling, S. (2003). Characteristics of eyewitness identification that predict the outcome of real lineups. *Applied Cognitive Psychology*, 17, 969–993.
- Weber, N., Brewer, N., Wells, G. L., Semmler, C., & Keast, A. (2004). Eyewitness identification accuracy and response latency: The unruly 10–12 s rule. *Journal of Experimental Psychology: Applied*, 10, 139–147.
- Wegner, D. M. (2002). *The illusion of conscious will*. Cambridge, MA: MIT Press.
- 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. (1984). The psychology of lineup identifications. *Journal of Applied Social Psychology*, 14, 89–103.
- Wells, G. L. (1985). Verbal descriptions of faces from memory: Are they diagnostic of identification accuracy? *Journal of Applied Psychology*, 70, 619–626.
- Wells, G. L. (1988). *Eyewitness identification: A system handbook*. Toronto: Carswell Legal Publications.
- Wells, G. L. (2006). Eyewitness identification: Systemic reforms. *Wisconsin Law Review*, 2006, 615–643.
- Wells, G. L., & Bradfield, A. L. (1998). “Good, you identified the suspect”: Feedback to eyewitnesses distorts their reports of the witnessing experience. *Journal of Applied Psychology*, 83, 360–376.
- Wells, G. L., & Bradfield, A. L. (1999). Distortions in eyewitnesses’ recollections: Can the postidentification feedback effect be moderated? *Psychological Science*, 10, 138–144.
- Wells, G. L., Ferguson, T. J., & Lindsay, R. C. L. (1981). The tractability of eyewitness confidence and its implication for triers of fact. *Journal of Applied Psychology*, 66, 688–696.

- Wells, G. L., & Hryciw, B. (1984). Memory for faces: Encoding and retrieval operations. *Memory and Cognition*, *12*, 338–344.
- Wells, G. L., & Leippe, M. R. (1981). How do triers of fact infer the accuracy of eyewitness identifications? Memory for peripheral detail can be misleading. *Journal of Applied Psychology*, *66*, 682–687.
- Wells, G. L., Leippe, M. R., & Ostrom, T. M. (1979). Guidelines for empirically assessing the fairness of a lineup. *Law and Human Behavior*, *3*, 285–293.
- 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., Malpass, R. S., Lindsay, R. C. L., Fisher, R. P., Turtle, J. W., & Fulero, S. (2000). From the lab to the police station: A successful application of eyewitness research. *American Psychologist*, *55*, 581–598.
- Wells, G. L., & Murray, D. M. (1983). What can psychology say about the Neil vs. Biggers criteria for judging eyewitness identification accuracy? *Journal of Applied Psychology*, *68*, 347–362.
- Wells, G. L., Olson, E., & Charman, S. (2003). Distorted retrospective eyewitness reports as functions of feedback and delay. *Journal of Experimental Psychology: Applied*, *9*, 42–52.
- Wells, G. L., Rydell, S. M., & Seelau, E. P. (1993). On the selection of distractors for eyewitness lineups. *Journal of Applied Psychology*, *78*, 835–844.
- Wells, G. L., Small, M., Penrod, S., 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.
- Whitley, B. E. Jr., & Greenberg, M. S. (1986). The role of eyewitness confidence in juror perceptions of credibility. *Journal of Applied Social Psychology*, *16*, 387–409.
- Wright, D. B., & McDaid, A. T. (1996). Comparing system and estimator variables using data from real lineups. *Applied Cognitive Psychology*, *10*, 75–84.
- Wright, D. B., & Skagerberg, E. M. (2007). Post-identification feedback affects real eyewitnesses. *Psychological Science*, *18*, 172–178.