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**Best Practice Recommendations for Eyewitness Evidence Procedures:  
New Ideas for the Oldest Way to Solve a Case**

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### **Abstract**

This article provides “best practice ” recommendations for collecting and preserving evidence using eyewitness identification procedures. Suggested procedures are based on decades of social science research as well as the recommended practices found in the recent report on the Robert Sophonow case in Manitoba and in a 1999 U.S. National Institute of Justice document distributed to all police services in the U.S. These recommendations currently guide training programs for several police services in Canada, the U.S., and around the world, and experienced criminal investigators will recognize many of the procedures as practices they have employed in their own cases. The overarching goal of this article is to accumulate these recommendations in one place in order to allow investigators to take advantage of them and achieve a maximal level of accurate eyewitness identifications while minimizing the rate of inaccurate choices.

## **Best Practice Recommendations for Eyewitness Evidence:**

### **New Ideas for the Oldest Way to Solve a Case**

Criminal investigators know that it often takes many pieces of converging evidence to solve a complex case. Freshly-schooled recruits and veteran investigators alike are trained to search for, detect, collect, and preserve “obvious” physical evidence such as weapons and stolen property, as well as trace physical evidence such as fibres, hairs, fingerprints, blood, and semen. Few police officers, lawyers, scientists, or people in general, would question the importance of using the best procedures available to obtain and preserve such evidence, not to mention adherence to relevant statutory and case law. Eyewitness evidence (i.e., the testimony of victims, witnesses, and suspects, and perhaps the identification of a suspect from a live or photograph line-up), however, presents some unique problems to investigators, which in turn can lead to especially serious consequences in court.

An analysis of actual cases in the U.S. reveals that the mistaken identification of the wrong person by victims and witnesses to a crime is the single most common error leading to the arrest and conviction of innocent people (U.S. National Institute of Justice, 1996). Several cases in Canada suggest similar problems here (e.g., *R. v. McGuiness, Ballantyne & Ballantyne*, 1997; *R. v. Sophonow*, 1985). In addition, potentially valuable eyewitness information is sometimes overlooked by not employing optimal procedures. In either case, the result is that the actual perpetrator of the crime is still at large, either because the wrong person has been identified or because no evidence has been produced.

This article describes a set of recommendations designed to minimize the rate of eyewitness errors, while at the same time maximizing the rate of accurate identifications. The recommendations are supported by over 20 years of research, are consistent with the U.S. Guide

for Law Enforcement on Eyewitness Evidence (U.S. National Institute of Justice, 1999), are the basis of training curricula for several police services in Canada and the U.S. (e.g., Ottawa-Carleton, York Region, New Jersey), and are in use by thousands of police officers in Canada and around the world (see e.g., Kebbell, 2000 for a favourable comparison between practices in the United Kingdom and these recommendations). It is hoped that the presentation of these recommendations, along with their scientific rationale, will aid in the effectiveness of investigative practices as well as the development of formalized policing procedures regarding eyewitness evidence (for similar discussions on this issue see e.g., Levi & Lindsey, 2001; Lindsey, 1999; Wells, 2001; Wells, Small, Penrod, Malpass, Fulero & Brimacombe, 1998).

### **A Psychological Assessment of the Eyewitness Evidence Predicament**

It is certainly not a groundbreaking statement to say that memory is not perfect. Anyone who has forgotten a name, misplaced their car keys, or scored less than 100% on an exam knows that not everything people initially perceive can be recalled accurately at a later date. This apparently simple notion, however, becomes even more complex in the case of an eyewitness's memory for a criminal event or traffic accident. Often, the resolution of a case can depend heavily on eyewitness information and, as such, the consequences of an error can be serious. It is not surprising, therefore, that a large body of scientific literature exists on this interesting overlap between basic memory research in psychology and the applied problems associated with eyewitness information in criminal investigations and criminal law. As such, it is important to briefly describe some of the factors that can affect memory at the three stages of human information-processing involved in eyewitness cases (i.e., acquisition, storage, and retrieval), before recommending procedures to effectively address these factors.

### Acquisition

Research indicates that there may be problems associated with a person's ability to accurately perceive, and thereby "acquire", all of the details of an event when they experience it. For example, memory might be impacted at one extreme by a person's state of heightened physiological arousal in a threatening situation or, at the other extreme, by his or her failure to even notice that a crime was occurring (e.g., a teller cashing a forged check. Other examples include the viewing conditions at the time of the event, the eyesight of the witness, and possibly the race of the witness compared to that of the offender.

### Storage

Even assuming that some of the details from the initial event are perceived correctly, those details face competition in the person's memory from other information the person is exposed to after the event. This situation may culminate in "memory interference" from a number of potential sources (e.g., other witnesses and media reports). The importance of this factor has been identified by policing agencies that have implemented a number of strategies to address this problem (e.g., separating witnesses before they can speak with one another, requesting that witnesses avoid speaking with the media or imposing an outright ban on media releases, and minimizing the time between the event and the retrieval attempt).

### Retrieval

Finally, even if the accurately perceived information remains intact in memory until its retrieval is requested in a prompt investigative interview or a line-up, inappropriate retrieval strategies may still lead to an incomplete statement or an inaccurate description of the offender. In some cases, retrieval may be negatively impacted by insufficient effort being requested from and/or exerted by a witness to exhaustively search their memory for all available information. In

addition, recall may be also be impacted by employing a description-eliciting technique that asks for a level of detail that is inconsistent with the overall impression the witness might have of the offender's appearance.

As described above, it is clear that memory is prone to error at several stages of information processing and, as such, these factors must be taken into account when assessing the potential accuracy of witnesses' statements or their ability to accurately identify a perpetrator. It is also clear that policing agencies recognize which of these potential memory shortcomings may be positively impacted by their procedures and practices and which factors are beyond their ability to control. This distinction may be best described through an analysis of two global eyewitness evidence categories – system variables and estimator variables.

### **System Variables vs. Estimator Variables**

Not all of the potentially negative influences on the quantity and quality of eyewitness evidence are as vulnerable to human shortcomings as others - a fact highlighted by the distinction between “system variables” and “estimator variables” first discussed over 20 years ago by one of the current authors. According to Wells (1978), estimator variables are factors which the police and the justice system have relatively little control over and, as such, their actual effects can only be estimated - as opposed to controlled. Some common examples of estimator variables have been mentioned above (e.g., the amount of attention paid by the witness at the time of the event, the quality of the viewing conditions, the length of time between the event and the taking of a statement). In addition to these primarily memory-based problems, there are other estimator variables such as witnesses' expectations of what they are supposed to do, inferences they might make about the identity of the offender, and possibly their over-zealousness to either cooperate or to intentionally stonewall an investigation.

Given the fact that estimator variables are, for the most part, beyond the control of both the police and researchers, relatively little scientific effort has been made to study them. As such, much of the research in the eyewitness area has focused on system variables – those factors over which the police and the justice system have at least some degree of control. Some common examples have been mentioned above (e.g., whether or not witnesses are separated before they have the opportunity to exchange information with one another and the techniques used by an investigator to elicit a description from a witness), and other system variables will be discussed at length below (e.g., the construction and presentation of identification line-ups). As the goal of this article is to provide practical recommendations for police to maximize the effectiveness of eyewitness evidence, it is important to first place this evidence within a policing perspective.

### **Eyewitness Memory As Trace-Evidence**

Although the term “trace evidence” is usually reserved for physical evidence such as fingerprints, blood, or fibres, it is useful to also think of eyewitness memory as a form of trace evidence (Wells, 1995). It is argued that, like physical trace evidence, eyewitness evidence is something that the perpetrator leaves behind at the scene of the crime. Unlike physical trace evidence, however, a memory trace cannot be observed directly or placed in an evidence container. Nevertheless, if an eyewitness observed the perpetrator commit a crime, then a trace exists inside the witness' head and this trace can be a key to establishing the identity of the perpetrator.

This memory-as-trace-evidence comparison is especially useful due to the clear parallels between physical trace evidence and memory trace evidence. Like many forms of physical evidence, memory traces can be delicate, and thus easily destroyed or damaged by mishandling. For example, eyewitness memories can be cross-contaminated (e.g., witnesses interacting and

sharing information) just as physical traces can be cross-contaminated (e.g., blood from one area of the crime scene mixed with blood from another area during collection) and memories, like some types of physical evidence, can decay over time. In addition, the way in which eyewitness memory is tested (e.g., the protocol for conducting a line-up) can influence the reliability of the results in the same way that tests on physical evidence (e.g., a DNA protocol) can affect the reliability of physical trace evidence.

Although it is possible to take the memory-as-trace-evidence parallel too far, the comparison focuses attention on the fragility of memory and the general idea that the reliable collection of eyewitness evidence is closely linked to the methods that are used to collect and preserve physical evidence. This assertion is especially valid in the case of a line-up, where the accuracy of a witness's decision should depend solely on that witness's memory for the offender. It is argued that injustices can occur readily and frequently when a witness' decision is based on aspects of the procedure that encourage him or her to choose someone in general (as opposed to saying, "I don't know" or "he's not there"), or the suspect in particular (as opposed to other line-up members).

### **The Current State of Affairs**

There are approximately 100 documented cases in the U.S. in which a convicted person who has served time in prison has been exonerated by DNA evidence indicating that someone else committed the crime. It has been estimated that of those 100 cases, over 75% were primarily the result of mistaken eyewitness identification of the convicted suspect. "Primarily" refers to the fact that in many of those cases other evidence was also presented which seemed to add weight to the overall probability that the suspect was in fact guilty of the crime. However, the other evidence used to augment the eyewitness evidence had generally low probative value (e.g., lack

of alibi, matching blood type) and often would not have been collected if the eyewitness had not first identified the suspect.

In addition to the above, it appears that the confidence of eyewitnesses might have also played a key role in these 100 cases of mistaken identity. That is, in the presence of the (generally) confident testimony of these eyewitnesses at trial, it is not surprising that the juries convicted given research that clearly indicates that jurors are likely to accept the identification testimony of confident eyewitnesses. Nor is it surprising that these witnesses were highly confident at trial, even though they had mistakenly identified the defendant, given research that shows the confidence of an eyewitness is not necessarily a good indicator of the accuracy of their memory. All of these observations point to the importance of using procedures that help to assure that a mistaken identification does not occur in the first place.

Compounding any estimator-variable problems in a given investigation, it appears that system-variable procedures differ greatly across provinces, jurisdictions, police services, and even individual police officers within the same service. Budgets, access to technology, emphases on different crime concerns, and other factors, can affect how eyewitness evidence is collected and handled. It is therefore reasonable to assume that not everyone is using the optimal strategy.

Finally, most efforts to address eyewitness errors have been focused on an after-the-fact, case-by-case, approach at the trial phase. At trial, prosecutors argue that the identification was reliable, while defence attorneys argue that the identification was not reliable, and occasionally experts testify about factors that may affect eyewitness reliability. This increasingly sophisticated and complex scrutiny of eyewitness evidence at trial has led to a situation in which procedures used by police services are routinely questioned by experts. This situation has led a number of researchers to recommend a move away from the use of expert testimony in court regarding

eyewitness evidence problems and a move toward a more proactive approach to preventing eyewitness errors through training, sharing knowledge, and the adoption of a standardized set of recommendations by police services. Such a set of recommendations is presented below.

### **Optimal Procedures for Eyewitness Identification of Suspects**

Concern over the problems associated with eyewitness identification prompted U.S. Attorney General Janet Reno to request a review of this issue in May 1998. Based on this request, the U.S. National Institute of Justice recruited a group of police officers, district attorneys, defence attorneys, and social scientists to address the issue of eyewitness evidence. An initial planning panel of nine representatives from all four disciplines expanded into the 34-member group called the Technical Working Group for Eyewitness Evidence. Seventeen of the 34 members were law enforcement officers, six were district attorneys, five were defence attorneys, and six were social scientists, three of whom are the authors of the current article (for a fuller description of this initiative see, Wells, Malpass, Lindsay, Fisher, Turtle, & Fulero, 2000).

A series of meetings held over the course of one year led to the publication of *Eyewitness Evidence: A Guide for Law Enforcement*, which was officially released on October 26 1999 in Washington, D.C. (The *Guide* is U.S. National Institute of Justice publication # NCJ 178240 and can be obtained free of charge by writing to the U.S. Department of Justice, Office of Justice Programs, National Institute of Justice, Washington, D.C. 20531 or downloaded from <http://www.ojp.usdoj.gov/nij/pubs-sum/178240.htm>). The *Guide* is divided into five main sections corresponding to five stages of a criminal investigation specifically concerning eyewitness evidence: (1) managing witnesses at the crime scene, (2) eliciting a description of the offender by searching mug shots or creating a composite likeness, (3) follow-up investigative interviews, (4) field identifications, and (5) line-up identifications.

In the interest of promoting a standardized approach to the problem, this article will organize its recommendations using the same layout as that found in the final section of the *Guide*: (a) composing line-ups, (b) instructing witnesses prior to viewing a line-up, (c) conducting the identification procedure, and (d) recording the identification results. It is important to note, however, that this article will not limit itself to the letter of the *Guide*, but will go beyond the minimum standards described there to include truly “best practice” recommendations – especially as they relate to Canadian police services. Also, although the *Guide* considers both live and photograph line-up procedures, given that photograph line-ups are far more prevalent than live line-ups in Canada, the procedures and comments provided here assume a photograph line-up. It should be noted that despite a general assumption that live line-ups are superior to photograph arrays, data suggest that differences in correct and false identification rates are similar in both procedures (Cutler, Fisher, & Chicvara, 1989). In addition, it appears that photograph arrays have a number of additional advantages, including: (1) it is easier to construct a fair photograph array than a line-up due to the availability of large photograph pools (mug shots), and (2) live line-ups can be thwarted by suspects acting out in ways that draw attention to themselves and make interpretation of their identification ambiguous.

Each section below will begin with a series of steps, followed by a discussion of the rationale for those steps and further comment on their implementation. It is clear that many situations present severe challenges to implementing these recommendations and, as such, the goal of this approach is to provide sufficient background logic so that investigators themselves can tailor the recommendations to specific situations.

### ***A. Composing Line-ups***

1. Include only one suspect in each identification procedure. In cases involving multiple perpetrators and multiple suspects, construct separate line-ups for each suspect.
2. Include an appropriate minimum number of fillers or foils (non-suspects) per identification procedure. Various terms for these additional line-up members are used across police services, including foils, fillers, distracters, stand-ins, shills, and others – the term filler will be used here.
3. Select fillers that generally fit the witness' description of the perpetrator. When there is a limited description of the perpetrator, or when the description of the perpetrator differs significantly from the suspect, fillers should resemble the suspect in significant features. By definition, any specific feature mentioned by the witness is significant. As such, if the description accurately states that the suspect had a mole, the inclusion of a filler photograph without a mole that otherwise closely resembles the suspect is not acceptable. If the suspect does not have a mole (but the witness described a mole) then no line-up member should have a mole. If the original description is particularly vague, common sense should prevail. Thus, if the witness failed to indicate race or sex, these obviously must be matched to the suspect anyway.
4. If multiple photographs of the suspect are reasonably available to the investigator, select a photograph that resembles the suspect's description or appearance at the time of the incident.
5. Consider that complete uniformity of features is not required. Avoid using fillers that so closely resemble the suspect that even a person familiar with the suspect might find it difficult to distinguish the suspect from the fillers.

6. Create a consistent appearance between the suspect and fillers with respect to any unique or unusual feature (e.g., scars, tattoos) used to describe the perpetrator, by artificially adding or concealing that feature.
7. Place suspects in different positions in each line-up, both across cases and with multiple witnesses in the same case. Alternatively, the suspect or his representative could be allowed to choose his position in the line-up.
8. When showing a new suspect, avoid reusing fillers in line-ups shown previously to the same witness.
9. Ensure that no information concerning previous arrest(s) will be visible to the witness.
10. View the line-up to ensure that the suspect does not unduly stand out, either because of a highly distinctive feature absent from other line-up members, or as a better fit to the description than other line-up members (including clothing), or due to differences in pose, background of the photograph, lighting differences, etc.
11. Preserve the presentation order of the photograph line-up. In addition, the photographs themselves should be preserved in their original condition.

Item 1 above refers to a crucial assumption that, by definition, a line-up means that there is just a single suspect and that all other members are people known to be innocent of the relevant crime. The problem with multiple-suspect line-ups is that the probability of a possible false identification rises dramatically as the number of suspects in a line-up increases above one, a point originally made by two of the current authors (Wells & Turtle, 1986). The problem can be most easily understood if one considers an extreme situation in which all line-up members are suspects – any identification is going to lead to further investigation, as opposed to the single-suspect case in which the identification of any filler provides potentially useful information to

police about the quality of the witness's memory, the likelihood that they have the real offender, and possibly the appearance of the real offender (i.e., he or she may look more like the selected filler than like the suspect).

It is of course important to conduct a follow-up investigation once the eyewitness has made an identification. The ultimate goal of that investigation is to determine who committed the crime *and* to rule out innocent suspects. Police sometimes object, therefore, to the notion that an actually innocent person identified in a line-up is at risk of arrest, prosecution, and conviction because they expect that the absence of incriminating evidence and/or the presence of exonerating evidence revealed by the subsequent investigation will rule out the identified person as the actual offender. Granted, if the line-up is conducted early in an investigation, with a low probability that the suspect is the actual offender, then it might not take much to eliminate that person from suspicion, but even in such cases things can go wrong. A mistaken identification is often not a "harmless error" that can be rectified in the ensuing investigation. Coincidental circumstantial evidence, the suspect's criminal history, the legitimate lack of an alibi, and even a false confession are all possible contributors to any initial belief that the suspect is the offender based on a witness's identification from a line-up. The well-documented phenomenon of "tunnel vision" (see e.g., Kaufman, 1998) can emerge to apparently cement the guilt of an innocent person who perhaps would never have even become a suspect without what turned out to be a mistaken identification. We strongly urge, therefore, that all attempts be made to avoid errors at all points of the investigation.

Although item 2 above recommends using "an appropriate" number of fillers, there is no exact number of fillers that is "correct" or "ideal" for all situations. Line-up size varies considerably from time to time and from country to country from as few as 3 to 12. Experience

in Canada and Britain with line-ups approximately twice the size of the typical American “6-pack” has not led either country to conclude that their line-up size is detrimental to resolving criminal cases. The limited research evidence available indicates that line-up size up to 20 photographs does not reduce the likelihood of correct identification. On the other hand, provided that all fillers match the description, the larger the line-up, the less likely an innocent suspect is to be selected by a witness who is guessing. Studies in both the U.S. with 6-person line-ups and Britain with 9- and 10-person line-ups indicate that approximately 20% of witnesses shown a line-up will identify a filler photograph. This evidence supports concerns that witnesses will identify innocent people from line-ups, but also suggests that line-up size alone does not seem to alter the tendency to choose. Overall then, larger line-ups should be better and we encourage the use of up to 12-person line-ups. It may be prudent to wait for further research before increasing line-up size beyond this level.

Items 3, 4, 5, 6, and 10 in this section all relate to the issue of line-up similarity – the degree to which the suspect looks like the rest of the photographs and how much they in turn look like each other. Much to their credit, police in the past have often gone to great lengths to ensure that all members of a line-up, including the suspect, look as similar to one another as possible, in an effort to comply with the reasonable and commonly-followed policy that the suspect’s photograph should not unduly stand out from the rest. Ironically, however, this strategy is not consistent with another reasonable principle that the fair composition of a line-up should facilitate the witness's ability to make an accurate identification of the offender if that offender is in fact in the line-up and the witness has a good memory for him or her. Selecting photographs based on their strong resemblance to the suspect can seriously compromise the ability of a good witness to identify the guilty suspect by creating a line-up where even a person very familiar

with the suspect might have difficulty distinguishing him or her from the others. It is often counterintuitive, therefore, for police officers to be informed by researchers that *“line-up distracters must merely match the description of the offender as given by the witness viewing that line-up”*, as long as the policy that the suspect does not stand out is upheld. More on this point is available in Wells, Rydell, and Seelau (1993), but suffice it to say here that the goal is actually to create some beneficial variety among the photographs, without making the line-up biased against the suspect. We have two further recommendations to accomplish this goal.

Our first recommendation for achieving a desirable level of match of fillers to the suspect involves an “iterative” strategy for selecting line-up fillers, which works as follows: (1) conduct the initial search of your database for appropriate photographs using search criteria based on the witness' description of the offender and not the typically more detailed information available in the suspect's record in the system. This will ensure that the initial pool of appropriate photographs is not too similar in appearance before any further selection is started, (2) select the first filler for the line-up to be as highly similar to the suspect as you want or are used to using, (3) put the photograph of the suspect out of sight, (4) select the second filler to be as highly similar as you want to the first filler you just selected, (5) put the photograph of the first filler out of sight, (6) select the third filler to be as highly similar as you want to the second filler you just selected, (7) continue in this manner until you have selected one more filler than required, (8) discard the first filler selected and use the remaining fillers in the line-up. The resulting line-up contains no fillers selected explicitly because of their similarity to the suspect, but all should match the suspect's general appearance, and (9) examine the final line-up, including the suspect, to determine if any filler can be excluded based on the description provided by the witness. If a

filler photograph can be eliminated, replace that person with a further choice - this should rarely be necessary.

Our second recommendation involves the rule of thumb that a person who has never seen the offender before should not be able to identify the suspect in the line-up other than by guessing. Suppose, for example, that the offender in a particular case was described by the witness as being a white male in his mid-20s with curly blonde hair and a moustache. Suppose further that you have constructed a line-up around a person who matches that description and who, likely for additional reasons, is the person suspected of committing the crime. You might have used the iterative strategy described above, or another strategy. Now, provide the description of the offender to 10 people totally unrelated to the case (colleagues, administrative staff, cleaning staff, etc.), show them the line-up, and ask them which person they think the offender is. If approximately 8 out of 10 select your suspect, then you have good reason to believe that the line-up is biased against that suspect because these “mock witnesses” who have never seen the offender before can “identify” him from the line-up! On the other hand, if the choices of these “mock witnesses” spread across several photographs in the line-up then you have good reason to believe that your line-up is not biased against the suspect. For more on this “mock witness” procedure, refer to articles in a special issue of *Applied Cognitive Psychology* dedicated to the topic (e.g., Malpass & Lindsay, 1999) as well as to a description of a number of more “formal” approaches to scientifically establishing the validity of your line-up (Brigham & Pfeifer, 1994).

A final point worth making about selecting line-up fillers is that all of the procedures described above are based on the description provided by the witness. If there is more than one witness, it will often be the case that their descriptions differ and, as such, a line-up that is unbiased for one witness may be biased for another witness in the same case. If witnesses'

descriptions of the perpetrator are sufficiently similar, it may be reasonable to use the same line-up for all witnesses. However, if the witnesses provide significantly different details, it is appropriate to use a different line-up for each witness with each line-up constructed specifically based on the description provided by the witness who will be shown the line-up.

***B. Instructions to a Witness Prior to Viewing the Line-up***

It should be noted that these are generic instructions – additional points are added in the next section for the specific type of line-up procedure we recommend there.

1. Instruct the witness that he or she will be asked to view a set of photographs.
2. Instruct the witness that it is just as important to clear innocent persons from suspicion as to identify guilty parties.
3. Instruct the witness that individuals depicted in line-up photographs may not appear exactly as they did on the date of the incident because features such as head and facial hair are subject to change.
4. Instruct the witness that the person who committed the crime may or may not be in the set of photographs being presented.
5. Assure the witness that regardless of whether or not an identification is made, the police will continue to investigate the incident.
6. Instruct the witness that the procedure requires the investigator to ask the witness to state, in his or her own words, how certain he or she is of any identification.

Item 4 above is probably the most important in this subsection and essentially revolves around the inclusion of a “none of the above” alternative that makes explicit the possibility that the police suspect is not in fact the offender. It is of course hoped by everyone (except the offender) that the suspect is indeed the offender, and it is likely to be the case in the majority of

line-ups, but of course the whole rationale behind the procedure is to test that very hypothesis. This instruction, therefore, counters a strong tendency for people to use a “relative judgment strategy” and choose the person who merely looks most like the offender they saw, based on the assumption that the police would not bother with the procedure if they did not have the guilty party in the line-up. Other elements of our recommended procedures discussed in the next section are also designed to reduce witnesses’ use of the relative judgment strategy.

The request for a statement of certainty identified in Item 6 is perhaps the most controversial of the above propositions and is one that both the police and district attorney representatives had great difficulty accepting in putting together the U.S. *Guide* based on two concerns. The first of these concerns revolves around a belief that the inclusion of a certainty statement reflects an attempt, on the part of the police, to make witnesses feel more confident than they really are. This is simply not the case. The same issue arises in the next section on conducting the line-up procedure, and we will address it there more fully. Suffice it to say, however, that researchers are more concerned with subtle and unintentional, yet insidious, behaviour than they are with blatant examples of attempted influence or misconduct. The recommendations presented in this article are based on human behavioural tendencies, including the police officer’s reaction to the witness’s line-up choice, and not on any assumption of ulterior motives on the part of the police. Officers motivated to distort or create evidence will not be prevented from doing so by these or any other guidelines for conducting line-ups. It is suggested that such behaviour is very rare and, as such, present these recommendations with the belief that the vast majority of police officers share our concern for obtaining the best and most object evidence possible.

The second argument for excluding the confidence-statement instruction concerns the issue of a scaled response. There is perhaps legitimate concern that requiring a numerical value (e.g.,

“how confident are you on a scale from 1 to 10?”) might result in an arbitrarily lower value that is dependent on an individual’s threshold for using the scale’s upper values. Neither the *Guide* nor we, however, are recommending that witness confidence be assessed on any kind of scale. The recommendation that the procedure require the investigator to ask the witness to state, in his or her own words, how certain he or she is of any identification is meant to elicit any statement that describes the witness’s confidence at that time. If the witness responds with a question such as, “do you mean on a scale from 1 to 10?”, the officer can reply, “not necessarily – whichever way best describes your confidence in your choice”.

In spite of the above concerns, there is a crucial reason for inclusion of a statement of certainty in both the *Guide* and in these best practice recommendations. The reason for including the instruction is based on common sense, common practice, and now a large body of evidence showing that people’s confidence in their line-up selection can be inflated as a result of what transpires after the procedure has ended (see e.g., Bradfield, Wells, & Olson, 2002; Wells & Bradfield, 1998, 1999). Many cues, both implicit and explicit, can be present that may indicate to a witness that the police believe he or she has made the “correct” choice in identifying the suspect. It is of course beneficial for the prosecution to have a witness appear as confident as possible when asked about the line-up choice in court. But if that confidence is proffered as being indicative of how the witness truly felt at the time of the identification, we argue that there must be an actual measure taken right after the choice is made, before the risks of “confidence inflation” are encountered. Although two of the recommendations below (i.e., blind line-ups and videotaping) may render this instruction unnecessary, or at least certainly less controversial, the rationale behind it is still strong.

### ***C. Conducting the Identification Procedure for a Blind, Sequential Photograph Line-up***

The crucial elements of conducting a “blind, sequential” line-up are included in this section. Before getting to the specific procedures, however, it is important to describe these terms and the rationale behind them. “Blind” refers to the fact that the officer conducting the identification procedure is either: (a) unaware of which line-up member is the suspect, or (b) not able to see which picture the witness is viewing at any given time (more on these alternatives follows below). As mentioned in the previous section, it appears that police officers are often quick to react to this type of recommendation because they believe it assumes they are intentionally trying to influence the procedure and its outcome. Again, this is not the case. Recommendations of this sort merely recognize the human element in this procedure – that is, the most well-intentioned individual can unintentionally convey information and expectations to the witness that can lead him or her to make a particular decision. This is not a “psychic” phenomenon, but rather a mundane part of human nature.

The use of the term “blind” to describe this procedure comes from decades of scientific experiments and clinical drug trials. Scientists and medical doctors are rarely accused of intentionally influencing the outcomes of their experiments and drug tests, but it is accepted as fact that they can have an unintentional influence on the results if they have too much information about a particular data point in an experiment or a patient in a drug trial. This is such a real possibility that nearly all clinical drug trials involve a “placebo” or “control” group in order to create a “double-blind” situation, in which both the patient taking the pills and the doctor assessing the patient’s health do not know if the pills are the actual new drug or an inert substance. As such, it is simply argued that police recognize that they have the same potential to unintentionally influence the outcome of an identification procedure as a doctor does to

inadvertently “see” improvement in a patient if he or she knows that the patient has been taking the experimental drug.

The other important element of the “blind, sequential” line-up has to do with how the photographs are actually presented to the witness. The traditional procedure is to present all of the photographs at once, or “simultaneously”, in an array of 6 to 12 photographs. The problem, however, is that such a procedure can encourage the witness to use the “relative-judgment” strategy we discussed earlier in the context of the pre-line-up instruction (i.e., informing the witness that the actual offender may or may not be in the photographs). Again, common sense, research results, and officers’ actual experience all indicate that it is not uncommon for a witness to explicitly employ a “process of elimination” approach, whereby the person who looks most like the offender is identified. An alternative identification technique, sequential line-up presentation, goes a long way toward solving this problem and several others. The idea of a sequential line-up was first introduced over 15 years ago (Lindsay & Wells, 1985), and Lindsay and his colleagues have gone on to conduct numerous studies with thousands of participants to hone the technique and demonstrate its effectiveness (see e.g., Lindsay, Lea, Nosworthy, Fulford, Hector, LeVan, & Seabrook, 1991).

The sequential technique requires a combination of several simple procedures: (a) each line-up member or photograph is presented individually, (b) witnesses are not told how many people are in the line-up, and (c) witnesses are informed that they may take as long as they wish looking at each person but that once they have decided, their decision is final – that is, they will not be allowed to go back over the line-up again. As each person or photograph is presented, the witness is required to make a decision of whether or not it is the perpetrator. A rapidly growing body of research indicates that sequential line-up presentation makes it extremely difficult to use

a relative judgment strategy. As a result, false identifications by eyewitnesses occur at a dramatically reduced rate while, fortunately, the rate of accurate identifications is not reduced significantly. The trade-off between reducing false identifications and losing accurate ones is discussed in more detail below.

Given the above, the following step-by-step procedural recommendations for conducting a blind, sequential line-up are made, followed by more discussion to facilitate their implementation and deal with potential concerns.

1. Provide viewing instructions to the witness as outlined in Section B, as well as the following:
  - a. Individual photographs should be viewed one at a time.
  - b. The photographs are presented in random order.
  - c. Either the officer presenting the pictures does not know which person is the suspect or, the officer does not know which position the suspect's photograph is in and should not be able to see which photograph the witness is viewing.
  - d. Instruct witnesses to take as much time as needed in making a decision about each photograph before moving on to the next one. Remind witnesses that a clear decision must be made and stated before the next photograph shown to them.
  - e. Inform witnesses that it is departmental policy to show all photographs, even if identification is made.
2. Confirm that the witness understands the nature of the sequential procedure.
3. Begin with all photographs out of the view of the witness.
4. Instruct all those present at the line-up not to suggest in any way the position or identity of the suspect in the line-up.
5. Avoid saying anything to the witness that may influence the witness's selection.

6. Present each photograph to the witness separately, removing the one previously seen before the next photograph is shown.
7. Ensure that a clear decision is made indicating whether or not the witness believes the person being examined is the offender before exposing the witness to the next line-up member.
8. If identification is made, avoid reporting to the witness any information regarding the individual he or she has selected prior to obtaining the witness' statement of certainty.

In general there are at least two ways to conduct a blind line-up as described above. In the best of situations, the officer conducting the procedure should not know who the suspect is. This can be accomplished by having a person other than the investigating officer handle the task. Under these conditions the officer is most likely to present the photographs to the witness without the possibility of unintentional bias.

Frequently, however, either there will not be an officer available who is unaware of the identity of the suspect (e.g., in a big case and/or a small police service) or personnel limitations may prevent the use of an officer unaware of the identity of the suspect (e.g., the officer conducting the line-up may have to be paid court time for testifying at trial). In cases such as these, a second possible strategy for conducting a blind line-up may be easier to implement, depending on the nature of the case, the size of the police service, and the available technology. A "low-tech" version of this technique is to place each picture in an envelope, shuffle the envelopes, number the envelopes, then hand them to the witness one at a time. The witness should be instructed to take out the photograph, announce (or write) the decision regarding the photograph, replace the photograph in the envelope, and return it to the officer. Once an envelope is returned to the officer, the next envelope is passed to the witness. The officer should be careful that she or he is not in a position to see the photographs while the witness is

examining them and does not examine the photographs when they are returned. A “high-tech” version of this alternative is to use computer presentation of the line-up. If the order of presentation of the pictures is determined by the computer, or pre-set by another officer prior to the line-up being shown to the witness, the officer would be blind so long as he or she was in a position that did not allow him or her to see the screen. It is our experience that police services often do not exploit the full functionality of the typically expensive and sophisticated software they use to store their arrest photographs when it comes to constructing and presenting actual line-ups. Here is one way to take fuller advantage. Another advantage to this alternative is that the investigating officer familiar with the case has the opportunity to view the witness’ behaviour, which could be a valuable asset in situations where the witness displays an emotional reaction to what turns out to be the suspect’s photograph.

Although a more effective alternative, there are potential problems associated with using the sequential technique versus the more traditional simultaneous presentation of photographs. For example, opportunities to examine the line-up members a second time are dangerous when no one was selected the first time through the faces. It may be necessary to allow a witness to view the pictures a second time, and it is possible that the witness will subsequently identify someone they passed on the first time. In this situation we recommend that the results of the procedure be well documented and “go to weight” in terms of their value in the case and any subsequent trial. Consider for example, a situation in which an officer might report that during an interview, a witness paused on photograph Number 5 (the suspect) for ten seconds during the initial sequential presentation, but finally said it was not him and moved on to the other photographs spending no more than two seconds on each. The officer may further report that after viewing the last photograph in the series the witness indicated that he or she “knew” who it was and

requested a second look at photograph Number 5. Finally, the officer can report that after re-examining photograph Number 5, the witness declared that they were certain it was this person who committed the offence. Although the officer in this situation is not claiming that the outcome followed from the strict administration of a formal sequential-line-up presentation, he or she can in good conscience claim that identification did occur and that the value of the identification can be weighed in subsequent phases of the investigation and possibly at trial. Although this evidence is clearly weaker than identification made upon first exposure to the suspect, its importance should not be disregarded.

The same problem does not appear to apply when identification is made and the witness requests an opportunity to examine the remaining line-up members. Data indicate that once eyewitnesses have selected the guilty person, they are unlikely to change their mind and choose someone else. Denying the witness such an opportunity could be perceived by the defence counsel and the courts as biased because witnesses are prevented from impeaching their identification by selecting another person. The decision to show any remaining photographs is a policy issue, and should not depend on the outcome of a particular line-up presentation. Therefore, it is recommend in Item 1e above that witnesses be told that all photographss will be shown even if an identification is made, and that the procedure be followed in all appropriate cases.

In addition to the above, it is important to note that recent research appears to indicate that in four specific situations sequential line-ups may be no better or even worse than the traditional simultaneous line-up. First, if the witnesses are children (aged ten or under) they may be confused by the sequential line-up procedure, resulting in lower correct identification rates than from traditional line-ups, multiple selections from the sequential line-up, and/or equal false

identification rates from both techniques. Second, if the suspect does not match the description originally given by the witness on a central detail (e.g., the criminal was bearded but the suspect is clean shaven), sequential line-ups may result in substantially lower correct identification rates than traditional line-ups unless the witness has been instructed prior to the line-up that all line-up members will share the change in appearance (e.g., be clean shaven). Third, if multiple perpetrators were involved in the crime and more than one suspect is to be shown to the witness, it is not clear how a sequential procedure should be used, and traditional methods have not been shown to be inferior in such cases. It should be noted, however, that all methods tested to date are prone to low rates of correct identification and high rates of false identification in multiple perpetrator situations. Fourth, cross-race identifications do not appear to benefit from sequential presentation of line-ups. Specifically, the ability of witnesses to accurately identify a person of a different race does not appear to increase through the use of a sequential procedure. None of these potential problems has been investigated sufficiently at this time to draw conclusions other than that the sequential line-up has not been demonstrated to show its superiority under these conditions and, in fact, some data exist suggesting that there may be some disadvantage to using the procedure under these conditions. Until more and better data are available, we do not recommend using sequential line-ups in these particular situations.

Perhaps the most pertinent question concerns the issue of whether there is a tangible reduction of accurate identifications resulting from the sequential line-up. Although the reduction of mistaken identifications from the sequential line-up is well established and robust, some have been surprised to find that accurate identification rates can also be lower with the sequential line-up than with the simultaneous line-up. Some loss of accurate identifications resulting from the sequential line-up should not be surprising, however, given the psychological mechanisms

involved. That is, some of the "accurate identifications" that come from the simultaneous line-up are merely the result of the relative-judgment strategy we discussed earlier. In other words, some witnesses who have rather weak memories nevertheless pick out the suspect because they are simply picking the person who looks most like the offender compared to the other line-up members. These weak-memory witnesses would not, however, be able to identify the offender from a sequential line-up because they do not have a good enough memory to do anything but make the shallow relative decision. In a sense, these witnesses are guessing and happen to guess "correctly" – that is, by selecting the suspect. The sequential line-up largely eliminates this type of guessing and, as such, there is some parallel loss in identifications of the suspect.

It is argued, however, that the sequential-superiority effect should be defined as the ability of the sequential line-up to produce a higher overall *ratio* of accurate to mistaken identifications of suspects, in spite of some loss in accurate identifications. The most complete discussion of this issue is a meta-analysis of the 9 published and 13 unpublished papers on simultaneous versus sequential line-ups, based on data from 4,125 research participants (Stebly, Deisert, Fulero, & Lindsay, 2001). The results of the Steblay et al. analysis reveal that correct identification rates of the offender when he or she is present in the line-up are 50% for the simultaneous presentation and 35% for the sequential. So, the sequential yields only 70% of the "hits" that the simultaneous does (the actual differences are likely to be much smaller than this in actual cases for reasons outlined in the Steblay et al. article; however, we will assume this magnitude of difference in hit rates so as to deal with the "worst case scenario"). However, mistaken identification of an innocent "stand in" for the offender is 27% for the simultaneous and 9% for the sequential line-up. As such, the sequential line-up yields only 33% of the "false alarms" that the simultaneous yields. Taken together then, the hit-to-false-alarm ratio for identifications of the

suspect for simultaneous line-ups is 50:27 (or slightly under 2.0) compared to 35:9 (or nearly 4.0) for sequential line-ups in these studies. This means that the odds of an identification of the suspect being accurate are approximately doubled by the use of the sequential line-up. Although some policy makers have expressed concern over the loss in accurate identifications that can result from the sequential line-up, it is argued that its advantage lies in generating evidence that is more diagnostic of the suspect's guilt.

#### ***D. Recording Identification Results***

1. Record both identification and non-identification results in writing, including the witness' own words regarding how sure he or she is and any additional spontaneous comments.
2. Ensure results are signed and dated by the witness.
3. Ensure that no materials indicating previous identification results are visible to the witness.
4. Ensure that the witness does not write on or mark any materials that will be used in other identification procedures.
5. Document in writing the photograph line-up procedures, including:
  - a. Identification information and sources of all photographs used.
  - b. Names of all persons present at the photograph line-up.
  - c. Date and time of the identification procedure.
6. Preserve a copy of the line-up by photograph or video. This documentation should be of a quality that represents the line-up clearly and fairly. Photographic documentation can be either of the group or of each individual.
7. Instruct the witness not to discuss the identification procedure or its results with other witnesses involved in the case and discourage contact with the media.

Item 1 above is an important point given that it is not necessarily obvious that a witness who does not select anyone from the line-up might be providing useful information to the investigator. This possibility was first discussed over 20 years ago (Wells & Lindsay, 1980) and more recently refined (Wells and Olson, 2002). In short, if one or more witnesses does fail to choose anyone and/or they identify fillers from the line-up, police should re-evaluate the likelihood that their suspect is in fact the offender with as much vigour as they would pursue the suspect if an identification were made. Finally, in addition to the possible benefit to solving the case, it could appear to the defence that only recording and admitting as evidence the results of line-ups that lead to identification of the accused is akin to withholding evidence.

Item 6 of this section refers to two procedural possibilities for recording the eyewitness identification evidence. On the one hand, police officers may merely retain a copy of the line-up and/or enough information to recreate it from a database of photographs, or they may record the actual procedure itself by either audiotape or videotape. We hesitate to recommend the latter idea as strenuously as others because we realize that it poses significant implementation problems on a large-scale basis (for the counter-argument see Kassin, 1998). However, much can be gained in by employing video recording in some specific cases. For example, it may be significantly more beneficial to videotape the procedure when police have good reason to believe that the identification may be challenged later (e.g., by a defence counsel who is known to scrutinize identification procedures at trial), or where a witness is expected to express an emotional reaction to the photograph of the suspect that police predict might be a persuasive indicator of accuracy to the defence, judge, and/or jury (e.g., a younger witness who is not very verbal, but is believed to have clearly seen the offender).

A final issue in this section revolves around the use of identification forms, which although employed often, may be in need of revision. Eyewitness researchers use forms with very specific features when they conduct identification procedures, especially when using the sequential presentation technique. We recommend a form that requires the witness to provide an explicit response for each photograph (e.g., “is Number 1 the person you saw? Circle YES or NO. Is Number 2 the person you saw? Circle YES or NO”). It should also be noted that researchers tend to provide more lines than the number of line-up members in order to reduce pressure on the witness to choose as the end of the sequence approaches. As such, a form for a 12-person line-up could include space for a response to 20 photographs in order to discourage the witness from choosing the final photograph simply because it is at the end of the series. Finally, of course, it is suggested that there is a need for a question probing confidence (i.e., “how certain are you that the decisions indicated above are correct?”), with some blank lines or empty space afterward.

It is suggested that using this method of recording witness responses makes it clear to the witness that only a yes or no response is acceptable and may prevent some of the attempts to circumvent the sequential procedure described above. An alternative phrasing of the question could be used to avoid situations where the witness feels clearly that he or she is not able to positively identify the person but is equally unsure that the person is not the criminal. To avoid this problem, the question could be re-phrased, and the witness asked if he or she can positively identify this person as the person they saw. It is important to note that a response of “no” to this question does not indicate that the witness believes that the person is not the criminal, only that the witness is unable to positively confirm that the person is the criminal. As we mentioned above, a computer-based presentation of the line-up should be seriously considered; in this case, it can facilitate the completion of a form as the witness clicks “YES” or “NO” buttons, as well as

provide information such as the time spent on each photograph, and a reliable record of the photographs used and the order in which they were presented. The form could be then be printed off and kept as an official record of the procedure.

### **Conclusions**

It is important to once again stress that these recommendations demonstrate a preference for avoiding problems with eyewitness evidence before they occur. This article does not suggest that experts be consulted more often than they are now, and ideally we see them being consulted less as police implement procedures that are less vulnerable to challenges during trials and less likely to elicit inaccurate identifications that call for a review at a later date. In summary, it is argued that four basic points will facilitate this change. First, it is recommended that police officers accept the basic logic behind these recommendations – that a witness’s identification decision should be based solely on his or her memory for the offender, and not influenced by features of the line-up procedure that encourage decisions to go one way or another.

Second, it is recommended that officers be trained to construct their own line-ups, as opposed to having them done by dedicated officers or civilians who may not appreciate the particulars of a given case. It is also suggested that appropriate training be undertaken to increase officers’ knowledge of the scientific rationale for the above recommendations in order to allow police investigators to react effectively when faced with a non-traditional situation. Based on resource, personnel and technological issues it is suggested that individual police services decide if they want to implement the blind-line-up recommendation using additional officers or by having the investigating officer do it following our suggested strategies.

Third, it is recommended that computers be exploited further to construct, present, and record line-ups where possible. It has been suggested that computers will eventually be the sole

mechanism by which these tasks are conducted and, as such, police services are encouraged to embrace this approach sooner rather than later and reap the accompanying benefits. Finally, it is vitally important to ensure that these recommendations are effective in practice on a large scale, so further research should be conducted to evaluate outcome variables such as arrest rates, police satisfaction, conviction rates, and court challenges in real cases involving eyewitness evidence and use of the procedures recommended here.

It is hoped is that law enforcement in particular, and the administration of justice in general, will benefit from these recommendations. The overall goal of these recommendations is to maximize the quantity, accuracy, and value of eyewitness evidence, while minimizing errors that can potentially waste time in an investigation, cause unnecessary hardship for an innocent person, and of course, leave the actual offender still at large. Through continued research, evaluation, development, and feedback it is also hoped that the recommendations will continue to evolve and to become even more useful to the policing community.

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