

An Important Note on Field Studies of Eyewitness Identifications from Lineups:
Filler Identifications are “Conditional Proxy Measures”

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Recent events have made it clear that there are some serious misunderstandings about methodology and interpretation of field studies involving actual crime witnesses that compare lineups conducted in one manner versus another manner. This brief report concerns one aspect that I believe to be the most central of these misunderstandings, namely, the interpretation of “filler” identifications.

I am going to state the conclusion from the outset and then explain the foundation for this conclusion. The conclusion is that **the use of “filler identification rates” in field experiments with actual eyewitnesses is not an appropriate measure when comparing a double-blind procedure to a procedure that is not double-blind.**

On the Proper and Improper Use of Filler Identification Rates in Field Experiments

Unlike lab-based experiments, in which the witnessed event is created by the researchers, we cannot be certain whether an identification of the suspect is the actual perpetrator in actual cases. A suspect is simply the person who is suspected of being the perpetrator. The DNA exoneration cases are examples of eyewitnesses identifying the suspect, but the identification was mistaken. On the other hand, when an eyewitness selects a “filler” we know that the identification was mistaken, even in actual cases. This is because a filler is a “known innocent” member of the lineup who was placed in the lineup simply to “fill out” the required number of lineup members.

The potentially-great aspect of filler identifications is that they can be counted as mistakes in actual cases. In other words, although we do not know whether the suspect was the culprit, we know that none of the fillers were the culprit, so filler identifications can tell us something about rates of error by eyewitnesses in actual cases. Under the right conditions, therefore, one can use filler identifications as a “proxy” (substitute) measure for the risk that innocent suspects have in lineups in actual cases. Hence, rates of filler identification can be useful for assessing how well some lineup procedure is working in actual lineups.

The problem is that filler identifications are not always appropriate proxy measures. Instead, filler identifications are “**conditional** proxy measures.” A **conditional** proxy measure is one that can work well as a substitute measure under some conditions but not under other conditions.

To illustrate the conditional aspect of filler identifications as proxy measures, I will begin with obvious, blatant examples of conditions in which filler identification rates are misleading. Suppose we were conducting a field experiment with actual eyewitnesses to crime and we were comparing two lineup procedures to find out which one produces the fewest filler identifications and the most identifications of suspects. In procedure A, the lineup administrator tells the eyewitness ahead of time which members of the lineup are fillers and which one is the suspect and in procedure B this information is not leaked to the eyewitness. Not surprisingly, procedure A will yield a lower filler identification rate (presumably zero) and more identifications of the suspect than will procedure B.

Clearly, this should not lead us to prefer Procedure A or to think that Procedure A is the best procedure. Under these conditions, filler identification rates are misleading as a proxy measure.

Consider another example of a condition in which filler identification rates are misleading. Suppose we were comparing one method of building a lineup to another. In one method, all the people selected to serve the role of fillers fit the verbal description that the eyewitness had given of the culprit (commonly called a fair lineup). In the other condition, however, none of the fillers fit the description (commonly called a biased lineup). Here, we would expect that the rate of filler identifications would be higher with the fair lineup than with the biased lineup. Clearly, filler identification rates are not only a poor proxy under these conditions, but in fact a grossly misleading proxy that would lead to precisely the wrong conclusion.

These two examples are used to illustrate the fact that filler identification rates are not good proxy measures for field studies under *some* conditions. But, these examples are overly obvious and at some level absurd. Could one realistically expect this type of problem in actual field studies? Yes. In fact, **this problem is present in any field study that compares double-blind lineup procedures to lineup procedures that are not double-blind.**

A double-blind lineup procedure is one in which the lineup administrator does not know which person is the suspect and which are merely fillers. Originally proposed in 1988¹, the double-blind lineup procedure contrasts sharply with the standard practice of having the case detective administer his/her own lineup. Using the standard (not double-blind) procedure, the lineup administrator is profoundly aware of which lineup members are merely fillers and which one is the suspected person. Decades of scientific studies conducted both inside and outside the lab have shown that the expectations of testers influence the people being tested in ways that conform to the testers' expectations². With lineup tests, we would expect non-blind administration to exert its influence by reducing the chances that the eyewitness will select a filler and increasing the chances that the eyewitness will choose the suspect. Such influences from the lineup administrator are totally inappropriate because the question being asked is that the eyewitness knows based on his or her independent memory. Any ways in which the lineup administrator might inhibit filler choices or enhance suspect choices is a contamination of the evidence.

¹ Wells, G.L. (1988). *Eyewitness identification: A system handbook*. Toronto: Carswell Legal Publications. Note as well that the double-blind lineup procedure was explicitly endorsed as one of the four core recommendations of the American Psychology-Law Society, see 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. There is wide agreement among eyewitness scientists that the double-blind lineup procedure is essential: "Double-blind testing is standard procedure in medical and pharmaceutical research, and is used in some areas of experimental psychology to prevent inadvertent communication of information to research participants about critical aspects of the research. Blind administration is an important step to take in any eyewitness identification procedure" McQuiston-Surrett, D., Malpass, R. S. & Tredoux, C, G. (2006). Sequential vs. simultaneous lineups: A review of methods, data, and theory. *Psychology, Public Policy, and Law*, (forthcoming 2006), available at <http://eyewitness.utep.edu/Documents/McQuiston-SurrettMalpassTredoux2006SimultSequentLineupReview.pdf> (last visited June 6, 2006).

² Rosenthal, R., & Rubin, D. B. (1978). Interpersonal expectancy effects: The first 345 studies. *Behavioral and Brain Sciences*, 3, 377-386. More recently, see Rosenthal, R. (2002). Covert communication in classrooms, clinics, courtrooms, and cubicles. *American Psychologist*, 57, 838-849.

It is difficult to capture all of the dynamics of how detectives administering their own lineups might influence eyewitnesses, but controlled lab studies have in fact found evidence that non-blind administration of lineups leads eyewitnesses to select someone who the lineup administrator was led to believe (falsely) is the culprit³. Furthermore, what the lineup administrator is led to believe (about which person is the suspect and which are fillers) affects the confidence (certainty) that the eyewitness expresses in his/her identification decision⁴. Specifically, if the eyewitness selects someone who the lineup administrator was led to believe was merely a filler, the eyewitness will express lower certainty than if the eyewitness selects that same person but the lineup administrator was led to believe that the person was the culprit. Indeed, “feedback” from the lineup administrator regarding whether the witness picked a filler or a suspect has a profound effect on how certain the eyewitness claims to have been when s/he made the pick⁵, a phenomenon that has been documented to occur in actual cases⁶.

The problem gets worse. When lineups are not administered using a double-blind procedure, the lineup administrator will often fail to record filler identifications at all⁷, instead simply indicating that the witness did not identify the suspect. Had the lineups been conducted using the double-blind procedure, the lineup administrator would have had to record all identifications because she or he could not be sure at the time which was the suspect and which were fillers. Furthermore, lineup administrators have some discretion in making a determination as to whether the eyewitness was certain enough to count the choice as an identification or not. For example, if the eyewitness says “number three is ... well it looks like number three,” one could either say that the eyewitness identified number three or that the eyewitness made no actual identification. Although it might be acceptable to let lineup administrators have such discretion, it is not appropriate to let lineup administrators use such discretion when they know whether number three was merely a filler versus number three was their suspect in the case.

³ E.g., see 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. Also, see Haw, R. M., & Fisher, R. P. (2004). Effects of administrator-witness contact on eyewitness identification accuracy. *Journal of Applied Psychology*, 89, 1106-1112. Furthermore, what a lineup administrator “learns” from one eyewitness can affect the identification behavior of a second eyewitness if the same lineup administrator conducts the second lineup, see Bradfield-Douglass, A., Smith, C., & Graser-Thill, R. (2005). A problem with double-blind photospread procedures: Photospread administrators use one eyewitness’s confidence to influence the identification of another eyewitness. *Law and Human Behavior*, 29, 543-562.

⁴ Garrioch, L., & Brimacombe, C.A.E. (2001). Lineup administrators' expectations: Their impact on eyewitness confidence. *Law & Human Behavior*, 25, 299-314.

⁵ Douglass, A. B., & Steblay, N. (in press). Memory distortion in eyewitnesses: A meta-analysis of the post-identification feedback effect. *Applied Cognitive Psychology*.

⁶ Wright, D.B., & Skagerberg, E. M. (in press). Post-identification feedback affects real eyewitnesses. *Psychological Science*, in press.

⁷ A field study in Northern California noted the inability to calculate filler identification rates for photographic lineups because the police did not distinguish between identifications of fillers and eyewitnesses’ decisions to identify no one (see Behrman, B.W., & Davey, S.L. (2001). Eyewitness identification in actual criminal cases: An archival analysis. *Law and Human Behavior*, 25, 475-491.) A similar problem was noted in field data on lineups conducted by the Royal Canadian Mounted Police (see Tollestrup, P.A., Turtle, J.W., & Yuille, J.C. (1994). Actual witnesses to robbery and fraud: An archival analysis. In D.F. Ross, J.D. Read, & M.P. Toglia (Eds.), *Adult eyewitness testimony: Current trends and developments* (pp 144-162). New York: Cambridge University Press.

Conclusion

Under the right set of conditions, filler identification rates in field experiments can be considered to be reasonable proxy measures of the risk of mistaken identification for an innocent suspect. However, filler identification rates (and suspect identification rates) can never be considered reasonable proxy measures for field experiments if the administration of the lineups does not follow a double-blind procedure. Consequently, field studies that compare or confound double-blind lineup procedure with lineup procedures that are not double-blind cannot use filler identification rates as a meaningful estimate of eyewitness mistakes. The best solution is to conduct field experiments using only double-blind procedures for all conditions.