

Similarity Judgments as an Alternative to Traditional Lineups for Eyewitness Testimony

Yuval Kernerman, M.Ed., & Kristine M. Jacquin, Ph.D.

Introduction

- It has long been established that eyewitness testimony is fraught with potential sources of error (Stebly et al., 2003; Steblay et al., 2011).
- Contrary to the perception of law enforcement and jurors alike, confidence does not correlate with accuracy (Potter & Brewer, 1999). Nevertheless, beliefs about the relationship between confidence and accuracy of identifications can greatly influence juror decisions (Beaudry, 2015) and lead to injustice (Innocence Project, 2018).
- Research has shown a number of factors that inflate eyewitness confidence, such as receiving feedback during the identification process, and delaying the recording of eyewitness confidence levels until after such time (Brewer, 2006).
- It is therefore critical for the legal system to be aware of factors that conflate confidence and accuracy and potentially alter verdicts (Palmer & Brewer, 2019).
- One innovative approach that has been suggested as an alternative to traditional lineups of suspects is the method of making “similarity judgments,” which may show promise by creating a more accurate level of confidence in testimony (Brewer et al., 2012).
- In “similarity judgments,” witnesses view one lineup candidate at a time, rather than be pressured to make a choice from among several potential candidates simultaneously.
- Decisions must be made within 3 seconds, since research has shown that speed correlates positively with more accurate memory recall (Sauerland et al., 2018). Using participants’ similarity ratings, an algorithm was created that judged the guilt rating of each lineup individual (Brewer et al., 2020).
- Researchers found that accuracy of culprit identification was significantly higher – as much as 66% higher – than a traditional lineup. Moreover, using similarity ratings gives a more quantifiable and comparative form of assessing suspect guilt in comparison to other individuals in the lineup. The confidence judgment process, as it is called by the researchers, is based on a more contemporary understanding of the workings of memory (Brewer et al., 2020).

Confidence Ratings for Sequential vs. Simultaneous Lineups

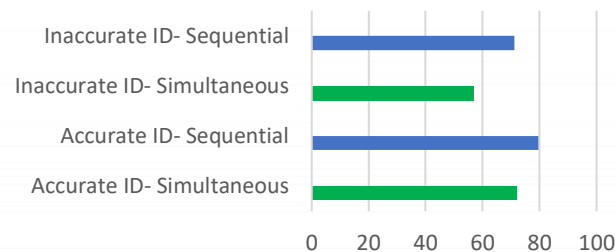


Figure 1: Confidence ratings for sequential vs. simultaneous lineups, in both inaccurate and accurate IDs. (Source of Data: Beaudry et al., 2015)

Proportion of Correct Decisions in Control vs. Deadline

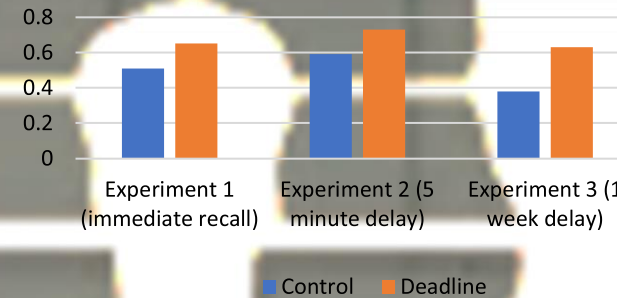


Figure 2: Accuracy ratings in experiments in control conditions (untimed) vs. deadline conditions (3 second max time allowed).

(Source: Brewer et al., 2012)

Conclusion

- Increased accuracy in the identification of culprits means a higher number of criminal convictions, and a lower number of innocent people being wrongfully accused.
- Similarity judgment ratings may decrease perception of guilt, however, accurate identifications is the goal.

References

- Beaudry, J. L., Lindsay, R. C. L., Leach, A. M., Mansour, J. K., Bertrand, M. I., & Kalmel, N. (2015). The effect of evidence type, identification accuracy, line-up presentation, and line-up administration on observers’ perceptions of eyewitnesses. *Legal and Criminological Psychology, 20*, 343-364. <https://doi.org/10.1111/lcrp.12030>
- Brewer, N., Caon, A., Todd, C., & Weber, N. (2006). Eyewitness identification accuracy and response latency. *Law and Human Behavior, 30*, 31-50. <https://doi.org/10.1007/s10979-006-9002-7>
- Brewer, N., Weber, N., Wootton, D., & Lindsay, D. S. (2012). Identifying the bad guy in a lineup using confidence judgments under deadline pressure. *Psychological Science, 23*(10), 1208-1214. <https://doi.org/10.1177/0956797612441217>
- Brewer, N., Weber, N., & Guerin, N. (2020). Police lineups of the future? *American Psychologist, 75*(1), 76-91. <https://doi.org/10.1037/amp0000465>
- Sauer, J. D., & Brewer, N. (2015). Confidence and accuracy of eyewitness identification. *Forensic Facial Identification: Theory and Practice of Identification from Eyewitnesses, Composites and CCTV, 1st Edition*. Valentine, T., & Davis, J. P. (Eds.). John Wiley & Sons, Ltd.
- Sauer, J. D., Palmer, M. A., & Brewer, N. (2019). Pitfalls in using eyewitness confidence to diagnose the accuracy of an individual identification decision. *Psychology, Public Policy, and Law, 25*(3), 147-165. <https://doi.org/10.1037.law0000203>
- Sauerland, M., Sagana, A., Sporer, S. L., & Wixted, J. T. (2018). Decision time and confidence predict choosers’ identification performance in photographic showups. *PLoS ONE, 13*(1), 1-12. <https://doi.org/10.1371/journal.pone.0190416>
- Stebly, N. K., 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. <https://doi.org/10.1023/A:1025438223608>
- Stebly, N. K., Dysart, J. E., & Wells, G. L. (2011). Seventy-two tests of the sequential lineup superiority effect: A meta-analysis and policy discussion. *Psychology, Public Policy, and Law, 17*, 99-139. <https://doi.org/10.1037/a0021650>