

Distance influences accuracy of eyewitness IDs

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Eyewitness accuracy declines steadily and quite measuredly as the distance increases. Additionally, a good deal of guess work or so-called "false alarms" also comes into play as the distance increases. These findings have implications for the trustworthiness of eyewitness accounts that are used to solve criminal cases. Research led by James Lampinen of the University of Arkansas in the US and published in Springer's journal *Psychonomic Bulletin & Review* sheds light on the matter.

Eyewitness identification plays a crucial role in approximately 80,000 criminal cases per year in the United States. While other research has already examined the relationship between identification accuracy and

distance, this study is the first to do so under carefully controlled outdoor conditions, and by using actual people. The researchers asked 195 college students to view 8 people who were presented to them at 6 different distances, ranging between 5 (4.6 meters) and 40 yards (36.6 meters). They were then shown 16 photographs: 8 of the targets they saw, and 8 photographs of other people that matched a description of the initial targets. Participants used an eight-point scale to indicate just how confident they were about having seen each individual before.

Similar to the findings of previous research, Lampinen's group observed a steady decrease of 0.55 percent per yard (91 cm) in correct identifications being made. This was further coupled with an increase in false alarms (at 0.44 percent per yard) as the distance between the witness and the target grew.

The research team made a new discovery in finding that the response bias* of witnesses grew increasingly liberal as distances grew greater. These results conform to the principles of Face-Space theory that there is a so-called "average" face around which clusters a multitude of faces that are similar in appearance, while dissimilar faces lie farther apart. According to facial averaging, the fine-grained details that are normally captured if faces are viewed close up are filtered out as distance increases. This in turn makes the faces more average-looking, and therefore makes them more similar in appearance.

"For smaller crimes such as burglary, robbery, non-sexual assault, or vandalism, DNA is rarely available at the crime scene and not typically appropriate to the case. Although penalties for such crimes are light compared to sexual crimes or murders, the future lives of those convicted could still be compromised if eyewitness accounts alone are taken into account," says Lampinen. He stresses the need for further research about the quality and accuracy of eyewitness accounts that are used for forensic purposes.

More information: Lampinen, J.M. et al (2014). Effects of Distance on Face Recognition: Implications for Eyewitness Identification, *Psychonomic Bulletin & Review* [DOI: 10.3758/s13423-014-0641-2](https://doi.org/10.3758/s13423-014-0641-2)

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