Eyewitness memory is susceptible to distortions that can lead a witness to mistakenly identify an innocent suspect as a perpetrator. Much of the research on eyewitness memory has focused on witnesses who experience a crime, do not know the perpetrator, and later must try to identify the individual in a lineup from memory. In a world where surveillance videos are ubiquitous, APS Fellow Kathy Pezdek and Tamar Lerer (2023) note that another form of identification is increasingly common: the non-eyewitness. A non-eyewitness is a person who does not witness a crime but instead reviews a video of the event and judges whether the suspect is the perpetrator in the video. Often, but not always, the non-
eyewitness has some prior familiarity with the suspect.

Related content: Eyewitness Error: Malleable Memories, Flawed Legal Processes, and an Opportunity to Train

Many people expect this sort of non-eyewitness identification to be easier and more accurate than traditional eyewitness identification. After all, a non-eyewitness may have some familiarity with the suspect and simply needs to recognize them in a video, which can be replayed repeatedly. However, Pezdek and Lerer argue that non-eyewitness identification, like eyewitness memory, is vulnerable to multiple sources of bias that can create identification errors. Furthermore, because non-eyewitnesses as well as those hearing their testimony often assume that this type of cognitive judgment is highly accurate, suspect misidentification may come with great confidence and consequence.

Pezdek and Lerer highlight three broad concerns regarding non-eyewitness testimony:

**Case-specific biases.** Video quality varies by case and can be affected by factors such as lighting, image resolution, and distance of the perpetrator from the camera. Video quality is not simply “good” or “bad”; it varies on a continuum, making it difficult to provide an objective criterion for excluding videos from evidence. Thus, educating judges about how these factors influence identification accuracy is essential because they ultimately determine a video’s admissibility.

**Person-specific biases.** Judges and juries also need to be educated about person-specific biases like race and familiarity. Just as people tend to be more accurate in identifying same-race faces than other-race faces in eyewitness memory (a finding known as the cross-race effect), so too are they better at selecting same-race faces in a perceptual matching task when they can simultaneously see the suspect and the lineup array (Megreya et al., 2011). The degree of familiarity also matters because, as one might expect, people are more likely to accurately identify someone familiar. That said, how long and how recently should a non-eyewitness have known the suspect for a court of law to view the two parties as “familiar” (e.g., Vallano et al., 2019)? Finally, many people assume that police officers, because of their training and experience, are more accurate witnesses than civilians (Benton et al., 2006). But several studies suggest that they are no more accurate than college students (see Pezdek & Reisberg, 2022 for a review).

**General cognitive biases.** Both police and jurors can be affected by information they learn about the case or the suspect. For example, jurors may hear circumstantial evidence that supports (but does not confirm) a defendant’s guilt. They may then see a video of the crime and be asked to judge whether the defendant is the individual in the video. Here, the previously heard circumstantial evidence may lead jurors to perceive a match when there is none.

Because non-eyewitness identification is vulnerable to bias, Pezdek and Lerer suggest that procedures related to non-eyewitness testimony should follow the same legal guidelines that protect against unreliable eyewitness testimony. Students typically love learning about eyewitness testimony and are
likely to enjoy this related topic, too.

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**Student Activity**

To demonstrate to students the challenges inherent in identifying a face from a video image, use this slide deck. Detailed instructions for implementing the activity are in the “notes” section of the first slide.

Briefly, this activity includes two phases: A face memory task (similar to traditional eyewitness memory tasks) and a face perceptual matching task (similar to non-eyewitness identification of unfamiliar faces). In the face memory task, students view a target face for 5 s and then see an array of 10 different faces. They must try to identify which face in the array (if any) is the same as the target face. In the perceptual matching task, students simultaneously view a target face along with an array of 10 faces and again try to select the target face from the array. This task involves only perceptual matching, without the memory burden.

Once students have tabulated their scores for both tasks, break them into small groups to answer the questions in the notes section of the first slide. Then discuss the findings as a class, highlighting these points:

- Facial identification is difficult—more difficult than many people might predict. Students will likely expect the memory task to be challenging but may be surprised by how hard the perceptual matching task is. Ask students to consider the various ways in which facial matching is used in our society (e.g., airport screening, ID checks for college and graduate admissions tests) and the consequences of face-matching errors.
- The cross-race effect is robust even for perceptual matching. In one study, when the target face was absent from the test array in a cross-race condition, participants picked another face nearly 50% of the time (Megreya et al., 2011). How often did the students pick someone on target-absent trials? Did this vary for the U.K. faces versus the Egyptian faces? What are the consequences of this sort of misidentification for the legal system?

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**References**

