Evidentiary (In)dependence

Kim Wade - Psychology

Why do these errors occur?

Forensic specialists make subjective judgements, leading to problems with:

- Inter-rater reliability
- Intra-test reliability

Context can influence these judgements:
- Knowledge of crime details
- Pressure from detectives
- Working within the police
- Computer generated lists
- Cross-communication among examiners involved in case
- Appearing in court within adversarial CJE

What can psychological science tell us?

How similar are these two faces?

0 = Not all, 10 = Extremely similar

“Sufficiently similar?”

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“Sufficiently similar?”

Analysis of 194 U.S. DNA exonerations:
- 146 cases contained reliable info about forensic science testimony used
- 88 cases contained improper testimony or undisclosed exculpatory evidence
- 38% incorrect serology testimony
- 22% involved hair comparisons
- 3% bite mark comparisons
- 2% fingerprint comparisons

These disciplines need to develop rigorous protocols to guide these subjective interpretations and pursue equally rigorous research and evaluation programs. The development of such research programs can benefit significantly from other areas, notably from the large body of research on the evaluation of observer performance in diagnostic medicine and from the findings of cognitive psychology on the potential for bias and error in human observers” (p. 8, NAS, 2009).

Harshman, West & Akselrod (2011)

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People perceive a suspect and a facial composite to be more similar when they're led to believe the suspect is guilty (Charman et al., 2009).

People hear more incrimination in degraded speech recordings when the interviewee is thought to be a crime suspect (Lange et al., 2011).

When mock-interrogators are led to presume a suspect is 'guilty', they use more incriminating questions, more coercive techniques, and try harder to obtain a confession (Kassin et al., 2003).

Knowledge of a recanted confession can taint evaluations of handwriting evidence (Kukucka & Kassin, 2012).

Prejudgement expectations influence:

- Interrogators (Hill et al., 2008, Kassin et al., 2003, Narchet et al., 2011)
- Judges (Charman et al., 2009, Lange et al., 2011)
- Eyewitnesses (Hasel & Kassin, 2009)

What can be done?

Crime laboratory:
- Examiners should work in 'linear' way
- Verification should be controlled and use blind testing
- Use technology carefully - e.g. lists of potential matches in fingerprint analysis
- Forensic science education/certification should include training in basic psychology

Courtroom:
- Legal decision makers should be trained to ask “What did the examiner know and when did s/he know it?”
- Judges and juries should know that forensic science conclusions that appear to corroborate a confession or identification may have been influenced by previously collected forms of evidence

Kassin, Dror, & Kukucka (2013)