

**Expertise, memory, and non-analytic cognition in fingerprint matching:
Experts can discriminate prints in noise, spaced in time, and in the blink of an eye**

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Abstract: When a fingerprint is found at a crime scene it is a human expert, not a machine, who is faced with the task of identifying the person who left it. We know from similar domains of expertise, such as medical diagnosis, that experts are accurate even with very little information and that much of expert decision making is based on rapid and unconscious recognition of previously encountered instances—non-analytic cognition. Here I will present evidence for non-analytic cognition in fingerprint matching, such that experts can discriminate fingerprints in noise, spaced in time, and in two seconds. Unexpectedly, however, fingerprint experts did not show the classic inversion effect seen in face recognition.

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