

Intuitive 'Gut' Feelings at Work in Mainstream Forensics

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Forensic experts rely on a surprising level of gut instinct to accurately match fingerprints to catch criminals, according to a new study

"Gut feeling is responsible for a lot more of the accuracy than many people think, even the experts themselves," says Dr Matthew Thompson of the [University of Queensland](#) School of Psychology.

While TV programs might give the impression that fingerprint matching is carried out by computers, this is actually the job of fingerprint examiners, who may use a shortlist of possible matches generated by a computer.

Interestingly very little is understood about how fingerprint examiners do this job.

Thompson says fingerprint examiners are trained to match by analysing certain features on fingerprints according to a set of rules.

"But our conclusion is that experts are still impressively accurate when they don't have those features available," he says.

In a series of experiments, Thompson and Dr Jason Tangen studied what happened when fingerprint examiners lacked the detail or time needed to analyse fingerprints.

They were asked to match prints that were upside down and were unclear, and in another case, given just a couple of seconds to match prints.

The experts amazed the researchers and themselves with how well they performed under these less than ideal circumstances.

Their findings are published in a recent issue of [PLOS ONE](#).

“The results from these experiments suggest that a surprising amount of fingerprint examiners’ accuracy can be accounted for by non-analytic thinking, which is intuitive, unconscious, associative, and effortless,” says Thompson.

“You can think of it as a sort of gut feeling.”

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