Determining how UK policing should construct identification parades – using diagnostic-feature-detection theory to maximise eyewitness identification accuracy

Key details

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Police region	West Midlands
Collaboration and partnership	The National VIPER Bureau
Level of research	PhD
Project start date	October 2021
Date due for completion	October 2025

Research context

Identification parades are routinely administered by police forces globally to determine whether a witness identifies the police suspect as the perpetrator of a crime. During a parade, a witness views images of the suspect and others who resemble the suspect, called fillers.

Worldwide, legal guidance on constructing parades uses the same central principle – the fillers should be plausible alternatives so that the parade is fair to the suspect (for example, UK Police

and Criminal Evidence Act 1984, Code D, 2017). Yet, even when constructing legally ‘fair’ parades, fillers can vary in similarity to the suspect. Currently, there is no evidence-based direction for identification officers on optimal filler similarity.

The research aims to determine how identification officers in the UK and internationally should select fillers, so that the parade is fair to the suspect (that is, the suspect does not unduly stand out from the fillers), and maximises witness accuracy.

It will do this by testing the newest psychological theory that makes predictions about the effect of filler similarity on witness accuracy – the diagnostic-feature-detection theory (Wixted & Mickes, 2014) – and by collaborating with the National VIPER® Bureau, the UK’s leading video identification service owned and managed by The Office of the Police and Crime Commissioner for West Yorkshire.

The project incorporates expert input from VIPER® and their subscribers (police forces) to test real-world procedures in experiments and collect real-world data on parade similarity. The research will answer important theoretical and practical questions, and has been co-developed with the Director of VIPER®, Mr Wayne Collins.

Reference

Wixted, J. T. & Mickes, L. (2014). A signal-detection-based diagnostic-feature-detection model of eyewitness identification. Psychological Review, 121(2), 262-276. https://doi.org/10.1037/a0035940

Research methodology

Research question one – how do identification officers select fillers in the UK?

- Survey distributed to identifications officers in UK (National VIPER Bureau user group) to learn about current parade construction procedures.

Research question two – how similar-looking should the fillers be to the police suspect to maximise witness

discrimination accuracy?

- Empirical studies.
- Film mock-crimes and record parade images in compliance with police standards. VIPER will provide an Identification Booth and quality-assure the images.
- The researcher will manipulate if the perpetrator is present or absent in the parade. All fillers will fit the description of the perpetrator, but filler similarity to the suspect will be manipulated (low, medium, high) using similarity ratings.
- Discrimination will be measured using Receiver Operating Characteristic (ROC) analyses and signal-detection modelling.
- 500 participants approx. (within-subjects, online).

Research question three – how does the similarity between an ‘innocent’ suspect and the perpetrator influence the effect of filler similarity on witness discrimination accuracy?

- Methodology same as RQ2, but we will further manipulate how similar (low, medium, high) an ‘innocent’ suspect is to the perpetrator.
- 9000 participants approx. (between-subjects, online).

Research question four – is parade similarity associated with real-world identification outcomes?

- Conduct survey to collect witness information and decisions recorded by police staff,- Similarity of the real-world parades will be assessed.
- Compare the parade outcomes from survey to parade similarity.