Decisions, Decisions: The Role of Scientific Evidence Communication on Prosecutorial Decision-Making

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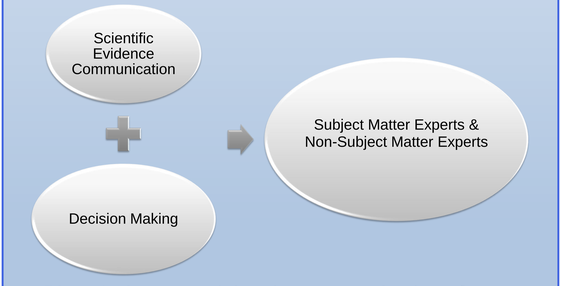
Aim of Study

The aim of this project is to determine to what extent, if any, variations in methods of communication of uncertainty affects decision-making in criminal justice process and the confidence in those decisions. This project will gain insight into that decision-making process by gathering data from members of the public, reflecting the role of non-scientists when presented with forensic science opinions.

Introduction

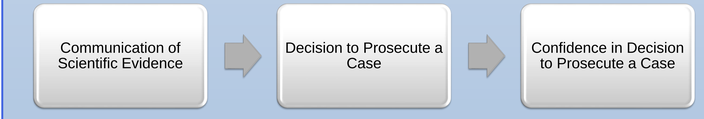
- Communication studies has roots across many disciplines from the social sciences to the study of languages as well as mathematics and general science (Al-Fedaghi, 2012; Bowman & Targowski, 1973; Fiske, 2002; Lasswell, 1948; Shannon, 1948; Shannon & Weaver, 1949).
- Each of these fields has their own distinctive definitions of what constitutes effective communication between parties (Fiske, 2002; Howes, 2015a; Howes, 2015b).
- It is crucial that scientific evidence testimony is accurately communicated and understood at all stages of the investigatory and prosecution processes to reduce the risk of wrongful convictions and increase the efficacy of investigations (Amorim et al, 2016; Garrett & Neufield, 2009; Jamieson, 2002).



- Pivotal when examining the communication of scientific evidence and the subsequent decision-making process, is consideration that effective communication to non-subject matter experts is not guaranteed (Edmond, 2012; Howes et al, 2014a; Howes et al, 2014b; Kelty et al, 2018; Martire, 2018; Thompson & Newman, 2015).

Rationale

- Previous research indicates that language and communication method modification can affect the decision-making process by criminal justice officials (Howes, 2019; Howes, 2017).
- The same has been found in the communications and decision-making processes of subject matter experts to non-subject matter experts (Howes, 2016; Howes, 2015a; Howes, 2015b). For anyone attempting to interpret the probative value of scientific evidence it can be difficult to comprehend what is meant by verbal indicators and probability statements (Arscott et al, 2017; Martire, 2018; Martire & Watkins, 2015; Martire et al, 2014; Metcalf, 2019).
- There remains a gap in the literature examining these issues in a post-devolution era of criminal justice in Scotland.
- Since the decision-makers at both Police Scotland and the Crown Office Procurator Fiscal Service are not scientific experts, this study will examine the impacts, if any, on varying communication methodologies of scientific evidence on lay people without specialist knowledge of scientific evidence.
- If there is a relationship between decision-making and the decision to prosecute a case and the way that the uncertainty of scientific evidence is communicated in that case, there could be implications and recommendations for the criminal justice process.



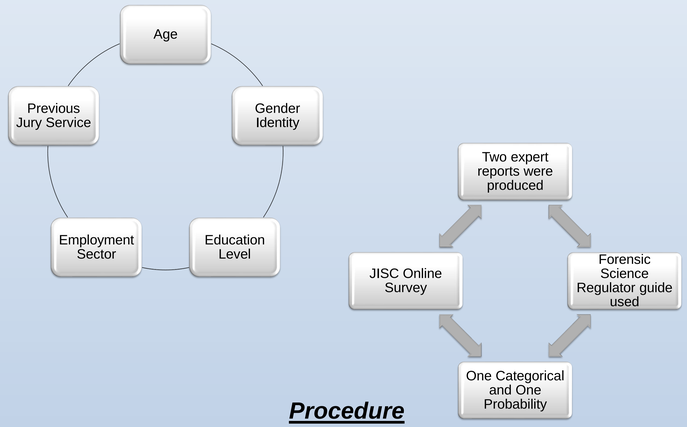
Hypothesis

- Our hypothesis is that where categorical indicators are used in place of probability statements, this would correspond with a higher rate of decisions to prosecute as well as confidence in that decision.

Methodology

Participants, Variables, and Materials

- The number of participants is expected to be high given this experiment will run for two months following ethical approval.
- All data will be anonymised from the outset with only a small number of demographical variables involved.



Procedure

- Participants will be asked to read two expert reports in turn relating to a crime in which DNA evidence had been gathered.
- The evidence has been reported in alignment with the regulations set out in the Forensic Science Regulator Code of Practice and Conduct for Development of Evaluative Opinions.
- Both reports are identical except for a variation in the communication of the conclusions of the scientific evidence.
- After each report, participants will be asked a binary Yes or No question about whether or not they would proceed to prosecute the case.
- Participants will also asked to rate their confidence of that decision on a 7-point Likert Scale ranging from Extremely Unconfident, Unconfident, Somewhat Unconfident, Neither Confident or Unconfident, Somewhat Confident, Confident and Extremely Confident.
- This data will then examined for associations against demographic variables in addition to the central test against communication method.

Discussion

- This poster is preliminary in nature as, at the time of submission, ethical approval has not been granted by the home institution.
- This poster, however, outlines the context and rationale of the current study and establishes the need for further research into decision-making by Prosecutorial officials.
- It is anticipated that this experiment will launch around the time of the SPUDM 2021+ Conference.

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