The Role of Rapport in the Investigative Interview
Exploring Motion-Capture Equipment as a Potential Measure for Rapport
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Rapport in the Investigative Interview
- Establishing and maintaining rapport is an essential part of investigative interviews as it plays a crucial role in fostering a relationship between the interaction partners and supports information provision.
- High levels of rapport have been associated with the disclosure of more detailed and truthful information by the interviewee.

Main Hypotheses
I. High self-rated rapport (a) and mimicry (b) are significantly positively correlated with the amount and truthfulness of information provided during the interview.
II. Mimicry and self-rated rapport are significantly positively correlated (i.e., validation of mimicry as a measure of rapport).

Motion capture suits to measure mimicry
- Xsens MVN motion tracking suits measure body movement with high precision (120 frames/sec), and are able to detect slightest changes in the natural flow of a human interaction.
- We can use this precision to get extremely accurate estimates of the amount of mimicry between interaction partners.

Conclusion and Implications
- With this work, we are one-step closer to understanding:
  1) How rapport influences the interview outcomes and,
  2) How complex interpersonal dynamics, such as mimicry, and social influence affect the investigative interview.
- Results from this study could provide important and realistic training tools for practitioners (e.g., police officers, boardroom control staff) using motion capture suits in combination with Virtual Reality, and ultimately increase the efficiency of investigative interviews.

Research Questions
- What impact does rapport have on the interview outcomes such as the amount and truthfulness of information provided?
- Can motion capture as a measure of behavioural mimicry provide a novel, additional and objective measure of rapport?

Methods

Results 1

<table>
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<tr>
<th>Interview</th>
<th>Post-interview</th>
<th>Transcription</th>
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<td>Pre-interview</td>
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<td>Participants commit a mock-crime and get equipped in Xsens motion capture suits.</td>
<td>We record participant’s nonverbal behaviour to measure mimicry.</td>
<td>Participants and interviewers rate nonverbal behaviour to validate mimicry as a measure of rapport. Interviews are transcribed and coded for amount and truthfulness of details provided.</td>
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Study 1 – Exploring the impact of guilt and cooperation on rapport
- 78 participants (Mean Age = 22.17, SD = 4.09)
- Participants committed a mock crime and were randomly assigned to either show cooperative or uncooperative behaviour.
- Mimicry and the information provided showed a moderate positive correlation.
- Interviewers perceived greater rapport than suspects did.
- Cooperative suspects showed significantly lower mimicry scores than uncooperative suspects.
- Interestingly, for uncooperative suspects we found a significant positive relationship between mimicry and self-rated rapport.
- But we found the opposite for cooperative suspects, namely a significant negative relationship between mimicry and perceived rapport.

Results II

Study 2 – Maintaining rapport over a delay
- Session 1: 57 participants (Mean Age = 20.69, SD = 3.09)
- Session 2: 52 participants (Mean Age = 20.81, SD = 3.19)
- 2 (Time: Session 1 x Session 2) x 2 (Interview approach: Engage and Explain x Accusatory) mixed factorial design

- The self-rated rapport scores indicate that an interview can recover from a first “bad expression” as created via an “accusatory” approach.
- However, mimicry scores remain low between sessions for the accusatory approach.

Study 3 – The role of the interview approach on rapport and the interview outcomes
- Following up on findings from Study 2, I ask if the “Engage and Explain” phase from the PEACE Model helps to increase rapport, or whether an “Accusatory” approach inhibits rapport?

Study 4 – Is rapport transferable between interviewers?
- Study 4 will disambiguate whether the restoration of rapport in session 2 (Study 2) can be attributed to familiarity with the interviewer or to being practiced in interviewing.

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