

How much does your smartphone know about your social life?

Similarities and discrepancies between experience sampling- and mobile sensing-based assessments of daily social behavior

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Experience Sampling (ESM)

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Drawbacks

- Systematic biases
- High participant burden
- Limited measurement duration

Promises

- Reduction of biases
- Low participant burden

Potentially unlimited study duration

Mobile Sensing (MS)

-> However, unknown vailidity of mobile sensing and lack of best practices

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Research Questions





RQ1: How similar are assessments of social behavior using Mobile Sensing and Experience Sampling?

RQ2: How much and what types of social behavior do Mobile Sensing and Experience Sampling overlook?



Participants:

- *N* > 300 participants, convenience sample
- stratified across gender and age ($M_{Age} = 39.65, SD_{Age} = 14.14$)

Procedure:



Methods







Results II: Calls







* About 25% of those 0.5 calls are probably not valid matches

Discussion: Ground Truth Problem







Mehl, 2017; Rauthmann & Sherman, 2021

Discussion: Take-Home message





Both methods have unique weaknesses and strengths. Theories are needed to decide when to use which (combination of) methods!

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Appendix

Discussion: Transiency of "Realities"







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Discussion: A Call for Theory



new data-collection tools



new statistical methods



replication



clear definitions





scientific progress

ongoing controversies





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