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Ecological Momentary Assessment of Well-being.

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Background

Well-being is often measured as a relatively stable trait in life (e.g. general satisfaction with life). However, well-being is known to fluctuate over time and in different environments. To assess these fluctuations and interaction with the environment, well-being should be measured as a momentary state (i.e. momentary happiness). We aim to identify the causes of individual differences in fluctuations of well-being over time and the interaction with the (social) environment.

Methods

The planned design is a combination of Ecological Momentary Assessment (EMA)[1] and passive mobile sensing using smartphone applications.

EMA: 8 prompts per day
1. How happy do you feel right now? (0-100)
2. How satisfied are you with your life at the moment? (0-100)
3. With whom are you? (Partner, friends, colleagues …)
4. Where are you? (Home, work, on the way …)

Sample:
A large sample of (partly genotyped) **monozygotic and dizygotic twin pairs** of the Netherlands Twin Register (NTR) are asked to install two different smartphone applications 4 times a year (each season) for 7 days.
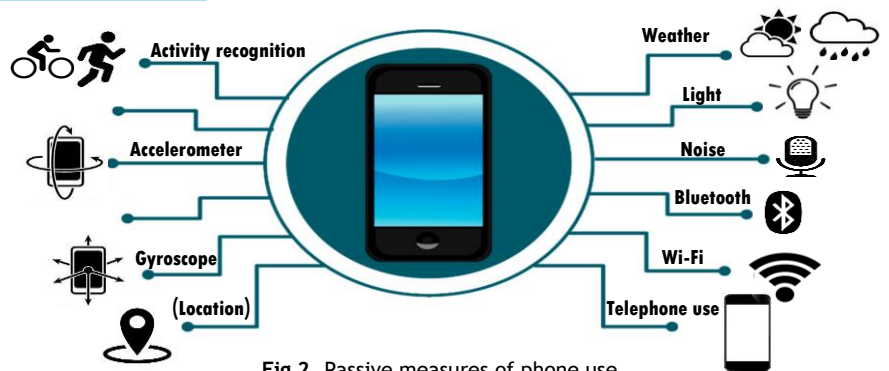

Fig 1. Example of an EMA design[2].

Fig 2. Passive measures of phone use, physical activity and environmental variables.

Research questions

- How can we explain individual differences in well-being fluctuations?
- How does well-being relate to environmental variables, phone use and physical activity?
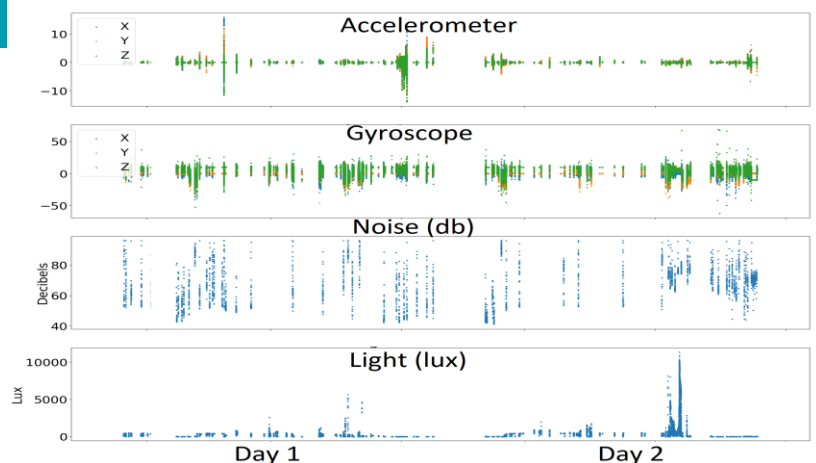

Fig 3. Example sensor data from two days (N=1). Each dot is a data point.

References
1. Stone, A. A., & Shiffman, S. (1994). Ecological momentary assessment (EMA) in behavioral medicine. *Annals of Behavioral Medicine*.
2. MacKerron, G., & Mourato, S. (2013). Happiness is greater in natural environments. *Global environmental change, 23*(5), 992-1000.