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## **Physiological synchrony in the context of cooperation: Theoretical and methodological considerations**

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### **Citation**

Behrens, F. (2020, October 28). *Physiological synchrony in the context of cooperation: Theoretical and methodological considerations*. Retrieved from <https://hdl.handle.net/1887/137983>

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**Issue Date:** 2020-10-28

## CURRICULUM VITAE

Friederike Behrens was born in Bad Oldesloe, Germany (1989) and graduated from “Oedeme Gymnasium” high school in Lüneburg in 2009. She completed her Bachelor of Science in Psychology (2009–2012), Master of Science in Psychology (2012–2015), and Research Master of Behavioural and Social Sciences (2013–2015) at Rijksuniversiteit Groningen, the latter with distinction. For the first master thesis, Friederike investigated the role and temporal profile of the early visual cortex in perception with a link to blindsight by means of transcranial magnetic stimulation (TMS). This project was supervised by dr. J. Jolij and dr. J.H.C Heutink. For the research project of her second master thesis, she had the opportunity to visit the lab of dr. W.J. Matthews at University of Cambridge to conduct a MEG/EEG study, where she investigated the effect of repetition and expectation on time perception. This project was co-supervised by prof. dr. D.H. van Rijn at Rijksuniversiteit Groningen.

During her PhD research at the unit Cognitive Psychology of the Institute of Psychology (Leiden University, 2015 - 2020), Friederike completed four studies to collect the data presented in this dissertation. During this time, she learned the necessary techniques to collect, pre-process, and analyze physiological data. In her third year, she visited the lab of prof. dr. S.M. Boker at University of Virginia to deepen her knowledge in statistical methods such as the Windowed Cross-Correlation analysis. Friederike advanced this analysis together with one of the lab members, dr. R.G. Moulder, to tailor it to the context of physiological synchrony. Besides conducting research, she also enjoyed being involved in extracurricular activities such as representing the PhD students of the faculty as a member of the PhD Platform board and organizing PhD Career events.

After her PhD, Friederike decided to explore the career possibilities outside the university and started a new job as a data scientist in Groningen, where she can apply her statistical knowledge gained during her PhD to various projects outside academia.

## LIST OF PUBLICATIONS

**Behrens, F., & Kret, M. E.** (2019). The interplay between face-to-face contact and feedback on cooperation during real-life interactions. *Journal of Nonverbal Behavior*, *43*, 513–528.

Huntjens, R. J., Wessel, I., Ostafin, B. D., Boelen, P. A., **Behrens, F.**, & van Minnen, A. (2016). Trauma-related self-defining memories and future goals in Dissociative Identity Disorder. *Behaviour Research and Therapy*, *87*, 216–224.

Massen, J. J., **Behrens, F.**, Martin, J. S., Stocker, M., & Brosnan, S. F. (2019). A comparative approach to affect and cooperation. *Neuroscience & Biobehavioral Reviews*, *107*, 370–387.

Quesque, F., **Behrens, F.**, & Kret, M. E. (2019). Pupils say more than a thousand words: Pupil size reflects how observed actions are interpreted. *Cognition*, *190*, 93–98.

Sense, F., **Behrens, F.**, Meijer, R. R., & van Rijn, H. (2015). Stability of Individual Parameters in a Model of Optimal Fact Learning. In *Proceedings of the 13th International Conference on Cognitive Modeling*, 136–141.

Sense, F., **Behrens, F.**, Meijer, R. R., & van Rijn, H. (2016). An individual's rate of forgetting is stable over time but differs across materials. *Topics in cognitive science*, *8*, 305–321.

## MANUSCRIPTS IN PREPARATION

**Behrens, F., & Kret, M.E.** (2020). Under the umbrella of prosocial behavior – a critical comparison of paradigms. *PsyArXiv*.

**Behrens, F.**, Moulder, R. G., Boker, S. M., & Kret, M. E. (2020). Quantifying Physiological Synchrony through Windowed Cross-Correlation Analysis: Statistical and Theoretical Considerations. *bioRxiv*.

**Behrens, F.**, Snijdwint, J. A., Moulder, R. G., Prochazkova, E., Sjak-Shie, E. E., Boker, S. M., & Kret, M. E. (in press). Physiological synchrony is associated with cooperative success in real-life interactions. *Scientific Reports*.

Prochazkova, E., Sjak-Shie, E. E., **Behrens, F.**, Lindh, D., & Kret, M. E. (submitted). Physiological synchrony predicts attraction in a blind date setting.