# Nadine Spychala

# Curriculum Vitae

#### Education

2016 – 2019 Master of Arts in Philosophy,

Carl-von-Ossietzky University, Oldenburg

2013 – 2016 Master of Science in Neurocognitive Psychology,

Carl-von-Ossietzky University, Oldenburg

2009 – 2012 **Bachelor of Science in Psychology**,

University of Hamburg, Hamburg

Master Thesis

Title The dynamics of integrated information in variational inference: a simulation study

Supervisor Professor Dirk Ostwald

Description In this thesis, I investigated the dynamics of integrated information in variational

inference using an integrated information measure for time-series models (Barrett & Seth, 2011) and black-box variational inference (Ranganath, Gerrish, & Blei, 2016).

Master Thesis

Title Towards free robotic hand control with EEG motor imagery

Supervisors Professor Stefan Debener & Dr. Niclas Braun

Description In this thesis, I investigated robotic hand control via motor imagery and experiences

of embodiment in an EEG brain-computer interface.

**Bachelor Thesis** 

Title Non-random samples in psychological research

Supervisors Professor Martin Spieß & Dr. Nils Skotara

Description In this thesis, I investigated how generalizable findings are in experimental

psychology taking into account different sampling methods.

#### Experience

Work

01/2018 – Data analyst, DEPARTMENT OF HUMAN MEDICINE,

02/2019 CARL VON OSSIETZKY UNIVERSITY, Oldenburg. Data analyst in medical education research.

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- 04/2016 **Teaching assistant**, DEPARTMENT OF PHILOSOPHY,
  - 07/2016 CARL VON OSSIETZKY UNIVERSITY, Oldenburg. Teaching assistant for Practical Philosophy in philosophy class (Prof. Frank Kuhne).
- 10/2015 Teaching assistant, NEUROPSYCHOLOGY LAB, CARL VON OSSIETZKY
  02/2016 UNIVERSITY, Oldenburg. Teaching assistant for EEG methods in psychology class (Prof. Stefan Debener).
- 11/2011 **Research assistant**, BIOLOGICAL PSYCHOLOGY & NEUROPSYCHOLOGY, 07/2012 UNIVERSITY OF HAMBURG, Hamburg. Research assistant for conducting EEG and behavioral experiments with subjects wearing cochlea implants (Prof. Brigitte Röder).
- 02/2011 **Teaching assistant in the seminar** *Ideas of Man*, INSTITUTE OF 08/2011 PSYCHOLOGY, Hamburg. Teaching assistant for non-mainstream topics in psychology.

#### Internships and Further Education

- 11/2019 **Brainhack Global**, *Sonifying EEG*, CHILD MIND INSTITUTE, New York.
- 03/2019 **Spring school**, *International Interdisciplinary Computational Cognitive Science Spring School* (IICCSSS), BERNSTEIN CENTER FREIBURG, Freiburg.
- 03/2019 **Brainhack**, *Deep Frankenstein: dissecting and sewing artificial neural networks*, UNIVERSITY OF WARSAW, Warsaw (Piotr Migdał & Katarzyna Kańska).
- 01/2018 **Conference**, *Predictive Processing: Reconstructing the Mind?* CENTRE FOR RESEARCH IN THE ARTS, SOCIAL SCIENCES AND HUMANITIES (CRASSH), UNIVERSITY OF CAMBRIDGE, Cambridge.
- 08/2017 **Summer school**, *The Free Energy Principle a unifying brain theory?* GERMAN NATIONAL ACADEMIC FOUNDATION, Rot an der Rot, Bavaria (Prof. Felix Blankenburg & Prof. Dirk Ostwald).
- 06/2017 **Conference**, Causation, Explanation, Conditionals, GRADUATE SCHOOL OF SYSTEMIC NEUROSCIENCES, BERNSTEIN CENTER FOR COMPUTATIONAL NEUROSCIENCE & MUNICH CENTER FOR MATHEMATICAL PHILOSOPHY, Munich.
- 08/2015 **Summer school**, *Am I too complex? System-theoretical approaches in psychological research and practice*, GERMAN NATIONAL ACADEMIC FOUNDATION, Neubeuern, Bavaria (Prof. Stefan Scherbaum).
- 10/2014 **Semester abroad**, DEPARTMENT OF COGNITIVE SCIENCE, JAGIELLONIAN 02/2015 UNIVERSITY, Cracow.
- 10/2014 Internship, CONSCIOUSNESS LABORATORY, INSTITUTE OF
- 01/2015 PSYCHOLOGY, JAGIELLONIAN UNIVERSITY, Cracow. In this research internship, I investigated the relationship between pain and the sense of ownership using electrical stimuli and the rubber hand illusion (Prof. Michał Wierzchoń).
- 106/2013 Internship, EQUALITY CALIFORNIA, Los Angeles. Internship in human rights
  108/2013 work, working on the public education projects *The Breakthrough Conversation* & Health Happens With Equality. Initiating a project on biphobia.
- 10/2012 Internship, CHILDREN FOR TOMORROW, UNIVERSITY MEDICAL CENTER
  01/2013 HAMBURG-EPPENDORF, Hamburg. Internship in pedagogical psychology.
  Supporting and implementing psychosocial programs for refugee children and adolescents.
- 107/2011 Internship, ASCLEPIOS CLINIC HARBURG. Internship in the psychiatric and psychotherapeutic ward with focus on personality disorders and psychotraumatology. Experience as a co-therapist.

#### Other Extracurricular Activities

- 08/2019 **Volunteer**, GROWNYC, New York. Environmental sustainability volunteer in New
  - 12/2019 York's Zero Waste and Greenmarket programs.
- 04/2015 Teaching assistant, LANGUAGE CENTRE, CARL VON OSSIETZKY
  - 07/2016 UNIVERSITY, Oldenburg. Teaching assistant in German for refugees.
  - 03/2016 **Language stay**, TURKISH EYE LANGUAGE CENTRE, Izmir. Intense Turkish language course.
- 03/2015 **Seminar**, GERMAN NATIONAL ACADEMIC FOUNDATION, *The post-soviet space in the 21st century political and economic challenges between Russia and the European Union*, Tallinn.
- 04/2014 Seminar, CARL VON OSSIETZKY UNIVERSITY, Recognizing, Knowing,
- 04/2015 *Justifying*, Oldenburg.
- 08/2014 **Seminar,** GERMAN NATIONAL ACADEMIC FOUNDATION, Україна? Ukraine! Questions concerning the political and economic future of the Ukraine and the return to old block thinking, Kiev.
- 12/2012 **Seminar**, UNIVERSITY OF HAMBURG, *Mental Health of Refugee Children and Adolescents Originating from War and Conflict Areas*, Hamburg.
- 08/2012 **Language stay**, LIDEN & DENZ LANGUAGE CENTRE, St. Petersburg. Intense Russian language course.

### Computer Skills

Programming Languages

R, MATLAB, PYTHON

#### Language Skills

- German Mother tongue
- Polish Mother tongue
- English Fluent
- French Advanced
- Spanish Intermediate
- Russian Elementary
- Turkish Beginner
- Arabic Beginner

#### Publications/scientific contributions

- Article Fincke, F., Prediger, S., Schick, K., Fürstenberg, S., Spychala, N., Berberat, P. O., Harendza, S., Kadmon, M. (2019). Entrustable professional activities and facets of competence in a workplace-based assessment for final year undergraduate medical students. *Medical Teacher*. In review.
- Article Spychala, N., Debener, S., Bongartz, E., Müller, H. H. O., Philipsen, A., Thorne, J., & Braun, N. (2019). Exploring Self-Paced Embodiable Neurofeedback for Post-Stroke Motor Rehabilitation. *Frontiers in Neuroscience*.
- Article Braun, N., Debener, S., Spychala, N., Bongartz, E., Sorös, P., Müller, H. H. O., & Philipsen, A. (2018). The senses of agency and ownership: a review. *Frontiers in Psychology*.
- Article Siedlecka, M., Spychala, N., Łukowska, M., Wiercioch, K., & Wierzchoń, M.(2017). Rubber hand illusion increases pain caused by electric stimuli. *The Journal of Pain*.

Towards embodied feedback for post-stroke rehabilitation, presented at the 6TH Poster MIND, BRAIN & BODY SYMPOSIUM, MIND & BRAIN SCHOOL BERLIN,

15th March 2018, Berlin.

Towards free robotic hand control with EEG motor imagery, presented at the 4TH Poster MIND, BRAIN & BODY SYMPOSIUM, MIND & BRAIN SCHOOL BERLIN, 16th March 2016, Berlin.

## **Scholarships**

10/2014 -Erasmus+ scholarship holder 02/2015

2010 -Scholarship holder of the German National Academic Foundation 2018