

Curriculum Vitae

Nina Becker, Ph.D.

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22 June 1988

Education

- Sept. 2017: **Ph.D. in Neuroscience**, Karolinska Institutet, Stockholm, Sweden
Ph.D. project: "Inter-Individual Differences in Associative Memory: Structural and Functional Brain Correlates and Genetic Modulators."
- Apr. 2012: **M.Sc. in Psychology**, Free University of Berlin, Berlin, Germany
Master thesis: "Effects of Continuous Inclusion in a Virtually Played Ball Tossing Game Called Cyberball on the P300 Event-Related-Potential – a Single Trial Analysis."

Professional Experience

- Nov. 2018 – today: **Postdoctoral researcher**, Emotion Lab, Department of Clinical Neuroscience Karolinska Institutet (Advisor: Prof. Andreas Olsson)
- Oct. 2017 – Nov. 2018: Maternity leave after birth of twins in October 2017
- Sept. 2017 – Nov. 2017: **Postdoctoral researcher**, Otto Hahn Research Group on Associative Memory, Max Planck Institute for Human Development, Berlin, Germany and Aging Research Center, Karolinska Institutet and Stockholm University, Stockholm, Sweden (Advisor: Prof. Yvonne Brehmer)
- Aug. 2013 – Aug. 2017: **Predoctoral fellow**, Otto Hahn Research Group on Associative Memory, Max Planck Institute for Human Development, Berlin, Germany and Aging Research Center, Karolinska Institutet and Stockholm University, Stockholm, Sweden (Advisor: Prof. Yvonne Brehmer)
- Apr. 2017: **Visiting researcher** at the Preston Lab, Center for Learning and Memory, University of Texas at Austin, USA
- Apr. 2010 – Apr. 2011: **Teaching assistant for Biological Psychology**, Free University of Berlin, research assistant
- Preparing and post-processing lectures
- Drafting presentations and exam papers
- Presenting complex neuropsychological concepts
- Nov. 2009 – Jan. 2010: **Charité Campus Mitte – Clinic & Polyclinic for Neurology**, intern
- Conducting neuropsychological diagnostics
- Collating neurological results
- Supervision of patients with neurological deficits and diseases
- Aug. 2009 – Oct. 2009: **NYU Social Neuroscience Lab**, New York University, Department of Psychology, research assistant (PI: Prof. David Amodio)
- Assisting in an EEG and behavioral study on early face perception and processing of group information
- Conception of study interviews and questionnaires

Apr. 2008 – Apr. 2010: **Department of Experimental Psychology and Neuropsychology**, Free University of Berlin, research assistant (PI: Prof. Michael Niedeggen)
- Supporting research projects focused on emotions, cognition and visual attention (using EEG)
- Conducting neuropsychological diagnostics
- Conception and conduction of cognitive training programs

Stipends and Grants

Jan. 2018: **International Postdoc Grant**, Swedish Research Council (3 150 000 SEK)
Project title: "Memory Neuromodulation: How Emotional Contexts Modulate Neural Item Representations in Healthy Individuals And Individuals With Emotional Disorders" (Advisor: Prof. Andreas Olsson, Dr. Simone Kühn, starting date Nov. 2018)

Aug. 2013 – Mar. 2017: **Predoctoral stipend**, Max Planck Society

Mar. 2015 – Aug. 2017: **Annual grant** as affiliated doctoral student at the National Graduate School for Competitive Science on Ageing and Health (20 000 SEK annually)

Apr. 2017: **Travel grant**, SWEAH (50 000 SEK)

Mar. 2017: **Travel grant**, Karolinska Institutet (14 000 SEK)

June 2016: **Travel grant**, Karolinska Institutet (5 000 SEK)

Apr. 2016: **Travel grant**, SWEAH (14 000 SEK)

June 2015: **Educational SFO award**, Strategic Research Area in Epidemiology (10 000 SEK)

June 2015: **Educational grant**, Graduate Research School on Health and Aging (10 000 SEK)

Awards

June 2019: Nominated for the annual award "outstanding young researcher" by the Swedish National Committee for Psychological Sciences

Publications

Undeger, I., Visser, R.M., de Boer, L., **Becker, N.**, Olsson, A. (in preparation). Associative learning via intentional and unintentional actions.

Becker, N., Kalpouzos, G., Salami, A., Laukka, E. J., & Brehmer, Y. (2019). Structure-function associations of successful associative encoding. *Neuroimage*, *201*, 116020.

Becker, N., Kalpouzos, G., Persson, J., Laukka, E. J., & Brehmer, Y. (2017). Differential effects of encoding instructions on brain activity patterns of item and associative memory. *Journal of Cognitive Neuroscience*, *29*, 545:559.

Papenberg, G., **Becker, N.**, Ferencz, B., Naveh-Benjamin, M., Laukka E. J., Bäckman, L., & Brehmer, Y. (2017). Dopamine receptor genes modulate associative memory in old age. *Journal of Cognitive Neuroscience*, *29*, 245-253.

Becker, N., Laukka, E. J., Kalpouzos, G., Naveh-Benjamin, M., Bäckman, L., & Brehmer, Y. (2015). Structural brain correlates of associative memory in older adults. *Neuroimage*, *118*, 146-153.

Conference Presentations

Becker, N., Laukka, E. J., Kalpouzos, G., Naveh-Benjamin, M., Bäckman, L., Brehmer, Y. Structural brain correlates of associative memory in older adults. **Poster presentation** delivered at the Cognitive Aging Conference, Atlanta, GA, United States, April 2014.

Becker, N., Laukka, E. J., Kalpouzos, G., Bäckman, L., Brehmer, Y. Structural brain correlates underpinning inter-individual differences in associative memory in older and younger adults. **Oral presentation** delivered at the Aging and Cognition Conference, Dortmund, Germany, April 2015.

Becker, N., Laukka, E. J., Kalpouzos, G., Bäckman, L., Brehmer, Y. Structural brain correlates of inter-individual variability in associative memory among older compared to younger adults. **Poster presentation** delivered at the International Conference of Cognitive Science, Tehran, Iran, April 2015.

Becker, N., Laukka, E. J., Kalpouzos, G., Bäckman, L., Brehmer, Y. Gray-matter volume correlates of associative memory in younger and older adults. **Poster presentation** delivered at the Cognitive Aging Conference, Atlanta, GA, United States, April 2016.

Becker, N., Kalpouzos, G., Laukka, E. J., Bäckman, L., Brehmer, Y. Structural Brain Correlates of Associative Memory in Younger and Older Adults. **Oral presentation** delivered at the International Conference on Memory, Budapest, Hungary, July 2016.

Becker, N., Kalpouzos, G., Salami, A., Laukka, E. J., Brehmer, Y. Structure-Function Correlates of Successful Associative Encoding - A Multimodal Imaging Approach. **Poster presentation** delivered at the Cognitive Neuroscience Society Conference, San Francisco, CA, United States, March 2017.

Selection of Workshops and Courses

April 2019:	Computational modelling for cognitive neuroscience and psychiatry research ; Karolinska Institutet
Jan. 2017:	Machine learning for functional brain imaging , Karolinska Institutet
Since 2015:	Computational modeling journal club , Karolinska Institutet; Bayesian statistics seminar series , Karolinska Institutet
May 2015:	Statistical Parametric Mapping (SPM) for fMRI and MRI/VBM , UCL Institute of Neurology, London, UK
Apr. 2015:	Images of the Mind: New Frontiers in Brain Imaging - Advanced (f)MRI Statistical Methods and Their Applications , University of Milano-Bicocca, Milan, Italy

Skills

Software:	R (advanced), Python (advanced), Matlab (intermediate), SPM, FSL, SPSS, MS Office, Photoshop
MRI/EEG analysis techniques:	Task-based univariate and multivariate fMRI analysis, voxel-based morphometry, independent component analysis, representational similarity analysis, tract-based spatial statistics, EEG single trial analysis

Ad-Hoc Reviewer

Neurobiology of Aging
Cerebral Cortex
Hippocampus
Neuroimage
eLife

Collaborations

Prof. Richard N. Henson, Cambridge Centre for Ageing and Neuroscience (Cam-CAN), University of Cambridge and MRC Cognition and Brain Sciences Unit, Cambridge, UK, www.cam-can.com

Supervision of Students

Summer 2013 - 2015:	Malin Hilvéus, Catharina Ellsäter (Psychology Program, Karolinska Institutet, Stockholm, Sweden), Research Assistants
Summer 2015 - 2017:	Marina Fodéus, Louise Lombach (Psychology Program, Karolinska Institutet, Stockholm, Sweden), Research Assistants
Nov. 2018 - May 2019:	Peter Will Day, Karl Björk (Psychology Program, Karolinska Institutet, Stockholm, Sweden), Bachelor theses
Nov. 2018 - ongoing:	Belinda Blomqvist, Kristina Nylund (Psychology Program, Karolinska Institutet, Stockholm, Sweden), Research Assistants and Bachelor theses
Currently:	Carl Blekemo, Max Helmisaari, (Psychology Program, Karolinska Institutet, Stockholm, Sweden), Master theses