

# Dr. Svenja Brodt

Max Planck Research Group Leader “Brain States for Plasticity”

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## EDUCATION

<b>Dr. rer. nat. in Cognitive and Systems Neuroscience</b>	2019
Graduate Training Centre of Neuroscience	Tübingen University
Thesis “Rapid memory formation in the posterior parietal cortex”	
Summa cum laude	
<b>M.Sc. Psychology</b>	2014
Major Cognitive Neuroscience	LMU Munich
<b>B.Sc. Psychology</b>	2011
	Saarland University, Germany

## EXPERIENCE

<b>Max-Planck-Institute for Biological Cybernetics</b>	07/23-now
Independent Research Group Leader “Brain States for Plasticity”	Tübingen
<b>Institute of Medical Psychology &amp; Behavioral Neurobiology</b>	01/19-06/23
<i>Post doc</i> , imaging human brain plasticity in vivo	Tübingen University
<b>Maternity leave</b>	09/20-09/21 & 12/22-06/23
<b>Institute of Medical Psychology &amp; Behavioral Neurobiology</b>	01/15-12/2018
<i>PhD student</i> , reactivation in cortical systems during memory consolidation	Tübingen University

## AWARDS & ACHIEVEMENTS

<b>Selected for Group Leader Position</b> at the European Neuroscience Institute, Göttingen	2022
<b>Fellowship</b> for Science School “The Functions of Sleep” by European Sleep Research Society	2021
<b>Young Investigator Abstract Award</b> by European Sleep Research Society	2020
<b>“Attempto” Young Researcher Award</b> by Universitätsbund Tübingen	2019
<b>Travel Grant</b> for international conferences by Deutscher Akademischer Austauschdienst	2017
<b>Research Award Biopsychology</b> by Deutsche Gesellschaft für Psychologie	2017

*Peer-reviewed publications*

Brodts S\*, Inostroza M\*, Niethard N\*, Born J (2023). Sleep – A brain state serving systems memory consolidation. *Neuron*, 111(7), 1050-1075. 10.1016/j.neuron.2023.03.005.

Flanagin VL, Klinkowski S, Brodts S, Graetsch M, Roselli C, Glasauer S, Gais S (2023). The precuneus as a central node in declarative memory retrieval. *Cerebral Cortex*, 10.1093/cercor/bhac476.

Brodts S, Born J (2021). Ripples for recall: The hippocampus constructing the context? *Neuron*, 109(17), 2646-2648. 10.1016/j.neuron.2021.08.010. #

Niethard N, Brodts S, Born J (2021). Cell-Type-Specific Dynamics of Calcium Activity in Cortical Circuits over the Course of Slow-Wave Sleep and Rapid Eye Movement Sleep. *The Journal of Neuroscience*, 41(19), 4212–4222. 10.1523/JNEUROSCI.1957-20.2021. #

Brodts S & Gais S (2020). Memory engrams in the neocortex. *The Neuroscientist*, 10.1177/1073858420941528.

Brodts S, Gais S, Beck J, Erb M, Scheffler K, Schönauer M (2018). Fast track to the neocortex: A memory engram in posterior parietal cortex. *Science*, 362. 1045-1048. 10.1126/science.aau2528.

Brodts S, Pöhlchen D, Täumer, E, Gais S, Schönauer M. (2018). Incubation, not sleep, aids problem solving. *Sleep*, 41(10). 10.1093/sleep/zsy155. #

Schönauer M\*, Brodts S\*, Pöhlchen D, Breßmer A, Danek A, Gais S. (2018). Sleep does not promote solving classical insight problems and magic tricks. *Front Hum Neurosci*, 12, 72. 10.3389/fnhum.2018.00072. #

Öllinger M, Fedor A, Brodts S, Szathmáry E. (2016). Insight into the ten-penny problem: Guiding search by constraints and maximization. *Psychological Research*, 81(5), 925-938. 10.1007/s00426-016-0800-3. #

Brodts S, Pöhlchen D, Flanagin VL, Glasauer S, Gais S, Schönauer M. (2016). Rapid and independent memory formation in the parietal cortex. *PNAS*, 113(46), 13251-13256. 10.1073/pnas.1605719113. #

*Preprints*

1. Brodts S, Schönauer M, Seewald A, Beck S, Erb M, Scheffler K & Gais S. Memory systems integration in sleep complements rapid systems consolidation in wakefulness. *bioRxiv* 2023. 10.1101/2023.03.09.531360.
2. Himmer L, Bürger Z, Fresz L, Maschke J, Wagner L, Brodts S, Braun C, Schönauer M & Gais S. Localizing spontaneous memory reprocessing during human sleep. *bioRxiv* 2021. 10.1101/2021.11.29.470230.

*Open Data and Code*

1. Brodts S, Gais S, Beck J, Erb M, Scheffler K & Schönauer M. (2022). Fast Track to the Neocortex: A Memory Engram in Posterior Parietal Cortex. doi: 10.17605/OSF.IO/PNXJE.