

# Darinka Trübutschek

Email: darinka.truebutschek@ae.mpg.de  
Date of birth: 26 February 1987  
Personal situation: Married, two children (born: August 2019 & December 2023)

## CURRENT POSITION

Jan 2021 – ongoing

### Postdoctoral Research Fellow

Max Planck Institute for Empirical Aesthetics, Frankfurt/Main, Germany  
Advisor: Prof. Lucia Melloni

## CAREER GAP

Oct 2023 – Aug 2024

### Maternity leave

Mar 2020 – Aug 2020

**Caring responsibility for my son** as a result of the Covid-19 related shutdown of childcare and research facilities

Jul 2019 – Dec 2019

### Maternity leave

## EDUCATION

Nov 2014 – Oct 2018

### PhD in Cognitive Neuroscience, with highest honors

Sorbonne Université, Paris, France; Advisor: Prof. Stanislas Dehaene

Sept 2012 – Dec 2013

### MSc in Behavioral and Cognitive Neuroscience, magna cum laude

Université Pierre et Marie Curie, Paris, France

Sept 2007 – May 2010

### BSc with Honors in Psychology, summa cum laude (valedictorian)

Washington & Lee University, Lexington, VA, USA

## RESEARCH & PROFESSIONAL EXPERIENCE

Jan 2019 – Dec 2020

### Postdoctoral Research Fellow

University of Oxford, Oxford, UK; Advisor: Prof. Mark Stokes

Jan 2014 – Oct 2014

### Research Intern

Neurospin, Saclay, France; Advisor: Dr. Sébastien Marti

Jun 2010 – Aug 2012

### Postbaccalaureate Fellow in Functional Neuroimaging

Duke University, Durham, NC, USA; Advisor: Prof. Tobias Egner

## GRANT FUNDING & FELLOWSHIPS

2022

BIAL Foundation Grant for the project “Event segmentation and time perception: understanding why time feels like flying” (56.000€; co-PI with Dr. Lucia Melloni)

2021

Christiane-Nüsslein-Volhard Fellowship for women in STEM (4.800€)

2021

**Marie-Sklodowska Curie Individual Fellowship** (174.806,40€)

2018

Postdoctoral fellowship from the **Fondation Fyssen** (70.000€)

2015

Grant from the Schneider Electric Foundation to finance two years of a PhD in cognitive neuroscience (72.236€; co-PI with Prof. Stanislas Dehaene)

2012

Graduate fellowship from the Ecole des Neurosciences de Paris to fund a PhD in neuroscience (150.000€)

2010 Postbaccalaureate Fellowship in Functional Neuroimaging from Duke University's Brain Imaging and Analysis Center (\$60.000)

## **HONORS & AWARDS**

2022 **L'Oréal-Unesco for Women in Science National Award** (10.000€)

2019 **Prix de la chancellerie des universités de Paris** (PhD award; 10.000€)

2016 Fellowship to attend the NIH Kavli Summer Institute in Cognitive Neuroscience

2010 Robinson Award in English Literature, History, and Social Sciences awarded by Washington & Lee University in recognition of my academic achievements

2007 – 2010 Washington & Lee University Honor Roll

2009 Elected to **Phi Beta Kappa**, a national honor society inducting undergraduates ranked among the top 10%

2009 R.E. Lee Summer Scholar (\$3.100 summer research grant)

2009 Psychology Departmental Scholarship awarded by Washington & Lee University

2008 James D. Davidson Memorial Fund Scholarship awarded by Washington & Lee University

2008 Elected to Phi Eta Sigma, a national honor society inducting freshmen ranked among the top 20% of their class

2004 Congress/Bundestag Youth Exchange Scholarship to fund a 1-year high school exchange in Springfield, VA, USA

## **PEER-REVIEWED PUBLICATIONS**

### **Published/Pre-prints**

*How do subjective perception and memory shape one another?*

#6. **Trübutschek, D.** & Melloni, L. (2023). Stable perceptual phenotype of the magnitude of history biases even in the face of global task complexity. *Journal of Vision*, 23(4), 1-20. doi: <https://doi.org/10.1167/jov.23.8.4>

#5. **Trübutschek, D.** (2022). Context-independent item representations in human working memory. *Annals Fyssen No. 35*, 124-142.

#4. **Trübutschek, D.**, Marti, S., Ueberschär, H., & Dehaene, S. (2019). Probing the limits of activity-silent, non-conscious working memory. *PNAS*, 116(28), 14358-14367. doi: <https://doi.org/10.1073/pnas.1820730116>.

#3. **Trübutschek, D.**, Marti, S., & Dehaene, S. (2019). Temporal-order information can be maintained in non-conscious working memory. *Scientific Reports*, 9(6484). doi: <https://doi.org/10.1038/s41598-019-42942-z>

#2. **Trübutschek, D.**, Marti, S., Ojeda, A., King, J.-R., Mi, Y., Tsodyks, M., & Dehaene, S. (2017). A theory of working memory without consciousness or sustained activity. *eLife*. doi: <https://dx.doi.org/10.7554/eLife.23871.001>

#1. Naccache, L., Marti, S., Sitt, J. D., **Trübutschek, D.**, & Berkovitch, L. (2016). Why the P3b is still a plausible correlate of conscious access? A commentary on Silverstein et al., 2015. *Cortex*, 85, 126-128. doi: <https://doi.org/10.1016/j.cortex.2016.04.003>

### *Shaping the future of (neuro-)science*

#4. Sarafoglou, A., Hoogeveen, S., van den Bergh, D., Aczel, B., Albers, C. J., Althoff, T., Botvinik-Nezer, R., ..., **Trübutschek, D.**, ..., & Wagenmakers, E.-J. (2024). Subjective evidence evaluation survey for multi-analyst studies (2024). *PsyArxiv*. doi: <https://doi.org/10.31234/osf.io/mxje3>

#3. **Trübutschek, D.\***, Yang, Y.-F.\*, Gianelli, C.\*, Cesnaite, E., Fischer, N. L., Vinding, M. C., Marshall, T. R., Algermissen, J., Pascarella, A., Puoliväli, T., Busch, N., & Nilsson, G. (2022). EEGManyPipelines: A large-scale, grassroots multi-analyst study of electroencephalography analysis practices in the wild. (2023). *Journal of Cognitive Neuroscience*, 36(2). doi: [https://doi.org/10.1162/jocn\\_a\\_02087](https://doi.org/10.1162/jocn_a_02087)

#2. Ruzzoli, M., Torralba Cuello, M., Molinaro, N., Benwell, C. S. Y., Berkowitz, D., Brignani, D., Falciani, L., ..., **Trübutschek, D.**, ..., & Veniero, D., (2023). An #EEGManyLabs study to test the role of the alpha phase on visual perception (a replication and new evidence). *PsyArxiv*. doi: <https://doi.org/10.31234/osf.io/3dhpx>

#1. Pike, A. C., Atherton, K., Bauer, Y., Crittenden, B. M., van Ede, F., Hall-McMaster, S., von Lautz, A. H., ..., **Trübutschek, D.**, ..., & Noonan, M. P. (2022). 10 simple rules for a supportive lab environment. *Journal of Cognitive Neuroscience*, 35(1), 44-48. doi: [https://doi.org/10.1162/jocn\\_a\\_01928](https://doi.org/10.1162/jocn_a_01928)

### *Pre-PhD*

#2. Coyle, E. F., Fulcher, M., & **Trübutschek, D.** (2016). Sissies, mama's boys, and tomboys: Is children's gender nonconformity more acceptable when nonconforming traits are positive? *Archives of Sexual Behavior*, 45, 1827-1838. doi: <https://doi.org/10.1007/s10508-016-0695-5>

#1. **Trübutschek, D.**, & Egner, T. (2012). Negative emotion does not modulate rapid feature integration effects. *Frontiers in Psychology*, 3(100). doi: <https://doi.org/10.3389/fpsyg.2012.00100>

### In preparation

**Trübutschek, D.**, Wasmuht, D., Spaak, E., & Stokes, M. (in prep). Dynamic brain states for flexible decision-making in working memory.

**Trübutschek, D.**, Fischer, C., Bledowski, C., & Melloni, L. (in prep). Attractive biases in working memory arise at the level of decisions, not perception.

**Trübutschek, D.**, Vieten, I., Schwiedrzik, C., & Melloni, L. (in prep). Not so automatic? Active, but not latent working memory templates trump serial dependence.

**Trübutschek, D.\***, Kienitz, R.\*, Winkler, M., Singer, W., & Melloni, L. (in prep). The role of the hippocampus for non-conscious sequence memory.

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## INVITED TALKS

- 2022 Women in Neuroscience Panel discussion on ‘Family, maternity, and caring duties: finding work-life balance (online)
- 2022 Neural Dynamics Forum (University of Bristol, UK): *Flexible decision-making in working memory*
- 2021 65<sup>th</sup> Congress of the German Society for Clinical Neurophysiology and Functional Imaging (DGKN; Frankfurt/Main, Germany): *Decoding our thoughts: Tracking the contents of (non-)conscious working memory*
- 2020 **Aggregate Intellect’s Spotlight Series** (online seminar): *Decoding our thoughts: Tracking the contents of (non-)conscious working memory*
- 2020 Barnes’ lab (University College London, UK): *The neuro-cognitive architecture of complex working memory*
- 2019 **Royal Netherlands Academy of Arts & Sciences Colloquium on ‘New Perspectives on Visual Working Memory’** (Amsterdam, Netherlands): *Characterizing the neuro-cognitive architecture of non-conscious working memory*
- 2018 Stokes’ lab (University of Oxford, UK): *Characterizing the neuro-cognitive architecture of non-conscious working memory*
- 2018 **Basque Center on Cognition, Brain and Language external speaker seminar series** (San Sebastian, Spain): *Non-conscious working memory and its boundary conditions*
- 2016 Ecole des Neurosciences de Paris seminar series (Paris, France): *A theory of working memory without consciousness or sustained activity*
- 2015 Egner lab (Duke University, USA): *Disentangling the relationship between conscious perception and working memory*
- 2015 Neurophilosophy workshop of the Berlin School of Mind and Brain (Venice, Italy): *(Un)conscious working memory?*

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## CONFERENCE PRESENTATIONS

- 2017 **Poster** at ICON 13 (Amsterdam, Netherlands): *The limits of non-conscious working memory*
- 2017 **Talk** at the Association for the Scientific Study of Consciousness 21 (Beijing, China): *The limits of non-conscious working memory*
- 2016 **Talk** at the Neuroscience Workshop Saclay (Gif/Yvette, France): *Disentangling the relationship between conscious perception and working memory*
- 2016 **Poster** at the Neuroscience Workshop Saclay (Gif/Yvette, France): *Disentangling the relationship between conscious perception and working memory*

- 2015 **Poster** at SFN (Chicago, USA): *(Un)conscious working memory? – Disentangling the relationship between conscious perception and working memory*
- 2015 **Symposium talk** at the Association for the Scientific Study of Consciousness 19 (Paris, France): *Perception and working memory during conscious and unconscious processing*
- 2011 **Poster** at SRCD (Montréal, Canada): *Male gender non-conformity and derogatory labels: Young adults' attitudes about and labels for preschoolers*
- 2009 **Poster** at Science, Society, and the Arts Conference (Lexington, USA): *Effects of parental closeness on emerging adults' engagement in risk-taking behaviors and adult status*

## **SUPERVISION & MENTORING**

- Dec 2022 – Feb 2023 **Primary supervisor** of Sümeyye Öztürk (Erasmus intern)
- April 2022 – ongoing **Primary supervisor** (together with R. Kienitz) of Maximilian Winkler (PhD thesis)
- Oct 2021 – ongoing **Co-supervisor** of Zefan Zheng (PhD thesis)
- Sept 2021 – April 2022 **Primary supervisor** of Ilona Vieten (Master's thesis)
- 2018 – 2019 Participated in the mentoring program *Letters to a Pre-scientist*, pairing up a researcher and high school student from a disadvantaged background to be pen pals for the duration of the academic year
- 2018 Plenary lecture as part of the Brain Awareness Week (together with Sébastien Marti; Saclay, France): *How does the brain construct our conscious experience?*
- 2017 – ongoing Participated in the mentoring program *Skype a Scientist*, allowing school children from all over the world to interact with a researcher through skype
- 2010 – 2012 Co-supervisor of Alex Irwin & Hannah Gold (undergraduate research interns)
- 2009 – 2010 Resident advisor for first-year students at Washington & Lee University
- Fall 2009 **Teaching Assistant for a Laboratory Statistics Course**, Washington & Lee University
- 2008 – 2010 Peer tutor in German & Psychology at Washington & Lee University
- 2005 – 2012 Volunteer for the American Field Service (AFS; exchange organization): co-organized exchange student recruitment & selection; mentored participating host families and students

## **SERVICE TO THE COMMUNITY**

- since 2021 **Social media manager** for the Melloni lab

since 2020	<b>Founding member of the steering committee of the EEGManyPipelines project</b>
since 2017	Ad-hoc <b>reviewer</b> for <i>Behavioral Brain Research, Cerebral Cortex, Consciousness &amp; Cognition, Neuroscience of Consciousness, Scientific Reports, Quarterly Journal of Experimental Psychology</i>
2016 – 2017	<b>Co-organizer</b> of the Neuroscience Workshop Saclay (NEWS 2017): <i>Neural circuits and behavior: from cells to connectivity and function</i> ; 9 international plenary speakers, 8 local trainee speakers, 153 attendees
2015 – 2016	<b>Elected representative</b> for the Ecole des Neurosciences de Paris student body; managed the annual budget (~2.500€), organized a seminar series on “New Frontiers in Neuroscience”, coordinated cultural & social events
2014 – 2018	<b>Co-organizer</b> of the weekly <i>Consciousness Seminar</i> in the Dehaene lab

## OUTREACH

2018 – 2019	<b>Letters to a Pre-scientist</b> ; cf. #Supervision, Mentoring, & Teaching
2018	<b>Brain Awareness Week</b> (Paris, France); cf. #Supervision, Mentoring, & Teaching
since 2017	<b>Skype a Scientist</b> ; cf. #Supervision, Mentoring, & Teaching
2017	NHK (Japanese Broadcasting Corporation) <b>documentary series on the human body</b> ; co-advised producers on scientific content
2016	<b>ARTE documentary</b> “Déchiffrer la conscience”; co-advised producers on scientific content & participated in scenes on MEG data acquisition
2013	<b>Brain Awareness Week</b> (Paris, France); co-organized a seminar on “A headful of music”
2011	<b>Brain Awareness Week</b> (Durham, NC, USA); organized & hosted lab visits for the general public, gave introductory lectures on the brain in several local elementary & high schools

## TECHNICAL SKILLS

Methods	intracranial EEG, MEG, (f)MRI/DTI, psychophysics
Programming	Matlab, Python, R
Stimulus presentation	PsychoPy, Psychtoolbox, Presentation, E-prime
Data analysis	MNE Python, Fieldtrip, Brainstorm, scikit-learn, SPM, FSL, SPSS
Version control	git, gitHub
Operating systems	MacOS, Linux, Windows

## LANGUAGES

German	Native language
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English	Native level
French	Fluent
Italian	Beginner

## MAJOR ONGOING COLLABORATIONS

**Dr. Lucia Melloni (Max Planck Institute for Empirical Aesthetics, Germany):** exploring how the past shapes current perception

**Cora Fischer & Dr. Christoph Bledowski (Goethe University, Germany):** serial biases in conscious perception

**Dr. Ricardo Kienitz (Goethe University, Germany):** the role of the hippocampus for non-conscious working memory

**Prof. Mark Stokes (University of Oxford, UK):** neural correlates of flexible decision-making in working memory

**Xin You Tai (University of Oxford, UK):** the effect of inter-ictal discharges on cognitive performance

**EEGManyPipelines project (world-wide collaboration):** multi-analyst project to assess variability in (preprocessing) analysis parameters & their effect on obtained results