

CURRICULUM VITAE

PERSONAL INFORMATION

Carsten Bundt, Ph.D.

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CURRENT AND PREVIOUS POSITIONS

- 11/2020-11/2024 Postdoctoral researcher, University of Oslo, Norway
10/2017-11/2020 Postdoctoral researcher, Ghent University, Belgium
10/2013-10/2017 PhD researcher, Ghent University, Belgium

EDUCATION

- 2013-2017 PhD in Psychology, Ghent University, Belgium
 • 01/2017-06/2017 Visiting PhD researcher, University College London, UK.
2011-2013 M.Sc. Cognitive Neuroscience, Radboud University Nijmegen, The Netherlands
 • 2011-2012 Honours Academy, Radboud University Nijmegen, The Netherlands
2007-2011 B.Sc. Psychology, University of Twente, The Netherlands

PUBLICATIONS

Summary of publication record

17 articles in international, peer-reviewed journals (6 first authorships). These articles were cited 594 times with a Hirsch index of $h=11$ (Google scholar on November 15, 2024).

List of preprints

1. Thunberg C, Wiker T, **Bundt C**, & Huster RJ (2023). On the (un)reliability of common behavioral and electrophysiological measures in the stop-signal task: markers of inhibition lack stability over time. *PsyArxiv*. <https://psyarxiv.com/2xfu3/>.
2. **Bundt C** & Huster RJ (2023). Corticospinal excitability reductions during action preparation and action stopping in humans: Different sides of the same inhibitory coin? *PsyArxiv*. <https://psyarxiv.com/pfw6c>.

List of peer-reviewed publications

1. Thunberg C, Wiker T, **Bundt C**, & Huster RJ (2024). On the (un)reliability of common behavioral and electrophysiological measures in the stop-signal task: markers of inhibition lack stability over time. *Cortex*, 175, 81-105. <https://doi.org/10.1016/j.cortex.2024.02.008>.

2. **Bundt C** & Huster RJ (2024). Corticospinal excitability reductions during action preparation and action stopping in humans: Different sides of the same inhibitory coin? *Neuropsychologia*, 195, 108799. <https://doi.org/10.1016/j.neuropsychologia.2024.108799>.
3. Buchanan EM, Lewis SC, Paris B, Forscher PS, Pavlacic JM, Beshears JE, ..., **Bundt C**, ... & Primbs MA (2022). The psychological science accelerator's COVID-19 rapid-response dataset. *Scientific data*, 10, 87. <https://doi.org/10.1038/s41597-022-01811-7>.
4. Dorison CA, Lerner JS, Heller BH, Rothman AJ, Kawachi II, Wang K, ..., **Bundt C**, ... & Coles NA (2022). In COVID-19 health messaging, loss framing increases anxiety with little-to-no concomitant benefits: experimental evidence from 84 countries. *Affective Science*, 3, 577–602. <https://doi.org/10.1007/s42761-022-00128-3>.
5. Psychological Science Accelerator Self-Determination Theory Collaboration (2022). A global experiment on motivating social distancing during the COVID-19 pandemic. *Proceedings of the National Academy of Sciences*, 119(22), e2111091119. <https://doi.org/10.1073/pnas.2111091119>
6. Huster RJ, **Bundt C** & Raud L. (2022). Quo vadis, inhibition? A section commentary on the articles by Diesburg and Isherwood. *Neuroscience & Biobehavioral Reviews*, 132, 495-496. <https://doi.org/10.1016/j.neubiorev.2021.11.043>.
7. Wang K, Goldenberg A, Dorison CA, Miller JK, Uusberg A, Lerner JS, ..., **Bundt C**, ... & Moshontz H. (2021). A multi-country test of brief reappraisal interventions on emotions during the COVID-19 pandemic. *Nature Human Behaviour*, 1-22. <https://doi.org/10.1038/s41562-021-01173-x>.
8. **Bundt C**, Boehler CN, Verbruggen F, Brass M & Notebaert W (2021). Reward does not modulate corticospinal excitability in anticipation of a Stroop trial. *European Journal of Neuroscience*, 53, 1019-1028. <https://doi.org/10.1111/ejn.15052>.
9. Kostandyan M, Park HRP, **Bundt C**, Gonzalez-Garcia C, Wisniewski D, Krebs RM & Boehler CN (2020). Are all behavioral reward benefits created equally? An EEG-fMRI study. *NeuroImage*, 215, 116829. <https://doi.org/10.1016/j.neuroimage.2020.116829>.
10. Reimer CB, Chen Z, **Bundt C**, Eben C, London RE, Vardanian S (2019). Open up – the mission statement of the Control of Impulsive Action (Ctrl-ImpAct) Lab on Open Science. *Psychologica Belgica*, 59, 1-17. <https://doi.org/10.5334/pb.494>.
11. **Bundt C**, Bardi L, Verbruggen F, Boehler CN, Brass M & Notebaert W (2019). Reward anticipation changes corticospinal excitability during task preparation depending on response requirements and time pressure. *Cortex*, 120, 159-168. <https://doi.org/10.1016/j.cortex.2019.05.020>.
12. **Bundt C***, Ruitenberg MFL*, Abrahamse EL & Notebaert W (2018). Early and late indications of item-specific control in a Stroop mouse tracking study. *PLoS ONE*, 13(5): e0197278. <https://doi.org/10.1371/journal.pone.0197278>.

*these authors contributed equally to this work

13. **Bundt C**, Abrahamse EL, Braem S, Brass M & Notebaert W (2016). Reward anticipation modulates primary motor cortex excitability during task preparation. *NeuroImage*, 142, 483-488. <https://doi.org/10.1016/j.neuroimage.2016.07.013>.
14. **Bundt C**, Bardi L, Abrahamse EL, Brass M & Notebaert W (2015). It wasn't me! Motor activation from irrelevant spatial information in the absence of a response. *Frontiers in Human Neuroscience*. 9:539. <https://doi.org/10.3389/fnhum.2015.00539>.
15. Bardi L, **Bundt C**, Notebaert W & Brass M (2015). Eliminating mirror responses by instructions. *Cortex*, 70, 128-136. <https://doi.org/10.1016/j.cortex.2015.04.018>.
16. Schelle KJ, Olthof BJM, Reintjes W, **Bundt C**, Gusman-Vermeer J & van Mil AACM (2015) A Survey of Substance Use for Cognitive Enhancement by University Students in the Netherlands. *Frontiers in Systems Neuroscience*. 9:10. <https://doi.org/10.3389/fnsys.2015.00010>.
17. van der Lubbe RHJ, **Bundt C** & Abrahamse EL (2014) Internal and external spatial attention examined with lateralized EEG power spectra. *Brain Research*, 1583, 179-192. <https://doi.org/10.1016/j.brainres.2014.08.007>.

Other

Bundt C, van Mil A, Olthof B, Reintjes W, Schelle K & Vermeer J (2012). Presteren onder druk of drugs? Een interdisciplinaire academische verkenning naar cognitive enhancement. In: Radboud Honours Academy (ed). *The wider implications of neuroscience, Reflections on Science 2011 – 2012: Nijmegen*

PRESENTATIONS

Posters

1. Thunberg C, Wiker T, **Bundt C** & Huster RJ (2023). The reliability of common behavioral and electrophysiological measures associated with stop-signal task performance. 63rd Annual Meeting of the Society for Psychophysiological Research, New Orleans, United States of America.
2. **Bundt C**, Raud L & Huster RJ (2022). Conflict resolution and response inhibition: A combined Flanker and Stop Signal task. International Conference of Cognitive Neuroscience, Helsinki, Finland.
3. Carsten T, **Bundt C**, Verbruggen F & Krebs R (2018). Go for it: Differential effects of reward and loss targets on motor excitability. 59th Annual Meeting Psychonomic Society, New Orleans, Louisiana, United States of America.
4. **Bundt C**, Brass M & Notebaert W (2018). Effect of reward prospect on corticospinal excitability during task preparation is dependent on task and action requirements. Cognitive Neuroscience Society, Boston, United States of America.

5. Kostandyan M, Park H, **Bundt C**, Krebs R & Boehler CN (2017). Neural mechanisms of global/specific proactive and reactive cognitive control in a rewarded Stroop task: A mixed block/event-related fMRI. Cognitive Neuroscience of Executive Functions, Padova, Italy.
6. **Bundt C**, Bardi L, Verbruggen, F, Boehler, CN, Brass M & Notebaert W (2017). Reward expectancy modulates corticospinal excitability depending on action requirements during task preparation. European Society for Cognitive Psychology, Potsdam, Germany.
7. Kostandyan M, Park H, **Bundt C**, Krebs R & Boehler CN (2017). Proactive and reactive cognitive control in a rewarded Stroop task: A simultaneous EEG-fMRI study. International Conference for Cognitive Neuroscience, Amsterdam, the Netherlands.
8. **Bundt C**, Brass M & Notebaert W (2017). Reward expectancy modulates primary motor cortex excitability depending on action requirements during task preparation. Human Action Control Winter School, Tübingen, Germany.
9. Kostandyan M, Park H, **Bundt C**, Krebs R & Boehler CN (2016). Neural mechanisms of global/specific proactive and reactive cognitive control in a rewarded Stroop task: A mixed block/event-related fMRI design. BrainModes, Brussels, Belgium.
10. **Bundt C**, Abrahamse EL, Braem S, Brass M & Notebaert W (2016). Reward expectancy modulates primary motor cortex excitability during task preparation. European Society for Cognitive and Affective Neuroscience meeting, Porto, Portugal.
11. Notebaert W, **Bundt C**, Abrahamse EL, Braem S & Brass M (2016). Reward modulates preparatory motor cortex inhibition. Cognitive Neuroscience Society, New York City, United States of America.
12. **Bundt C**, Abrahamse EL, Braem S, Brass M & Notebaert W (2015). The influence of reward on the excitability of primary motor cortex in the Simon task. European Society for Cognitive Psychology, Paphos, Cyprus.
13. **Bundt C**, Bardi L, Abrahamse E, Brass M & Notebaert W (2015). Automatic motor activation on the basis of spatial words: A TMS study. Cognitive Neuroscience Society, San Francisco, United States of America.
14. Bardi L, **Bundt C**, Notebaert W & Brass M (2015). Eliminating mirror responses by instructions. Cognitive Neuroscience Society, San Francisco, United States of America.
15. Schelle KJ, Olthof BMJ, **Bundt C**, van Mil ACCM, Reintjes W, Vermeer J, Cools R & Zwart HAE (2012). The Rise Of Pharmacological Cognitive Enhancement: (Inter)National Policy Advice Based On Prevalence And Characterization Of Users In The Netherlands. 8th FENS Forum of Neuroscience. Barcelona, Spain.

Talks

1. Notebaert W, **Bundt C**, Abrahamse EL, Ruitenberg M (2015). The dynamics of control in the Stroop task. European Society for Cognitive Psychology, Paphos, Cyprus.

2. **Bundt C**, Bardi L, Abrahamse EL, Brass M & Notebaert W. (2015). Automatic motor activation on the basis of spatial information: A TMS study. Neuronus, Krakow, Poland.
3. van der Lubbe RHJ, **Bundt C** & Abrahamse EL (2013). EEG support for a close relation between visuospatial attention and visual working memory. NVP Winter Conference on Cognition, Brain, and Behaviour of the Dutch Psychonomic Society, Egmond aan Zee, The Netherlands.
4. van der Lubbe RHJ, **Bundt C** & Abrahamse EL (2013). The Simon effect towards memorized locations: EEG support for the involvement of attention. Neuronus, Krakow, Poland.

GRANTS AND AWARDS

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|------|---|
| 2024 | 50.000 NOK Internal research funding ("Småforsk"). Department of Psychology, University of Oslo. |
| 2023 | 36.000 NOK Internal research funding ("Småforsk"). Department of Psychology, University of Oslo. |
| 2022 | 30.000 NOK – Internal research funding ("Småforsk"). Department of Psychology, University of Oslo. |
| 2021 | 25.000 NOK – Internal research funding ("Småforsk"). Department of Psychology, University of Oslo. |
| 2016 | 300 EUR –travel award (Winter School "Human Action Control", 13 th -16 th February 2017). Department of Psychology, University of Tübingen |
| 2016 | 6.732 EUR – Mobility grant. Research Foundation Flanders (FWO). |

RELEVANT SKILLS AND ACTIVITIES

Supervision

PhD students: 3
MPhil students: 4
MSc students: 4
BSc students: 1

Teaching activities

2024

Co-lecturer of masters course "Cognitive control in action" at Department of Psychology, University of Oslo, Norway.

2023

Main lecturer of masters course "Cognitive control in action" at Department of Psychology, University of Oslo, Norway.

Co-lecturer of masters course "Multidisciplinary Studies of Consciousness" at Department of Psychology, University of Oslo, Norway.

Guest lecture on Open Science in masters' course "Master thesis in Psychology" at the Department of Psychology, University of Oslo, Norway.

2022

Co-lecturer of masters course “Cognitive control in action” at Department of Psychology, University of Oslo, Norway.

Co-lecturer of masters course “Multidisciplinary Studies of Consciousness” at Department of Psychology, University of Oslo, Norway.

Guest lecture on Open Science in masters’ course “Master thesis in Psychology” at the Department of Psychology, University of Oslo, Norway.

2021

Co-lecturer of masters course “Multidisciplinary Studies of Consciousness” at Department of Psychology, University of Oslo, Norway.

Guest lecture on Open Science in masters’ course “Master thesis in Psychology” at the Department of Psychology, University of Oslo, Norway.

2020

Co-lecturer of 3rd year BSc course “Introduction to neuroimaging” at the Department of Experimental Psychology, Ghent University, Belgium.

2019

Co-lecturer of 3rd year BSc course “Introduction to neuroimaging” at the Department of Experimental Psychology, Ghent University, Belgium.

2018

Guest lecturer on TMS and tDCS, in: Introduction to Neuroimaging for Bachelor and Master students, Department of Experimental Psychology, Ghent University, Belgium.

Departmental activities

2024	Internal member of hiring committee to evaluate and review applications for a postdoctoral position at the Department of Psychology, University of Oslo, Norway.
2023	Board member at the Department of Psychology, University of Oslo, Norway
2022	Internal member of hiring committee to evaluate and review applications for a postdoctoral position at the Department of Psychology, University of Oslo, Norway.
2021	Internal committee member giving advice for evaluation criteria for hiring committees according to the DORA and Nor-Cam recommendations. Department of Psychology, University of Oslo, Norway.
2021-2024	Course coordinator of masters course “Multidisciplinary Studies of Consciousness” at Department of Psychology, University of Oslo, Norway.
2018-2020	Lab manager of the transcranial magnetic stimulation (TMS) laboratory at the Department of Experimental Psychology, Ghent University, Belgium. Responsibilities involved (non-exhaustive list): provision of methodological training, organization of equipment maintenance and supply.
2018-2020	Coordinator of the M.Sc. internships at the Department of Experimental Psychology, Ghent University, Belgium. Responsibilities involved (non-exhaustive list): recruitment, organization, and administration of (inter)national internships,

communicating between students and (inter)national research institutions, organization of internship evaluations.

Voluntary activities

2019- **Advisor** at the Solaris foundation. The Solaris foundation is dedicated to early career researchers. It aims to facilitate mentor-mentee relations in academia and industry, mentors researchers while transitioning from academia to industry, and promotes open science (<https://stichting-solaris.github.io>).

Ad-hoc reviewer

Journals: Attention, Perception & Psychophysics; Quarterly Journal of Experimental Psychology; Psychological Research; Journal of Cognitive Neuroscience; PLoS One; Cognitive Psychology; Frontiers in Psychology; Cognitive, Affective, & Behavioral Neuroscience; Experimental Brain Research.

Research skills

Methodological experience: Behavioral studies, transcranial magnetic stimulation (TMS; single-pulse and paired-pulse), electroencephalography (EEG), magnetic resonance imaging (MRI; diffusion tensor imaging).

Computer experience and skills

Matlab, SPSS, Neurobehavioral Systems Presentation, E-Prime, Brainvision recorder/analyzer, Biosemi, R, Python, Word, Excel, PowerPoint

Continuous learning

Machine learning (09/2020, Coursera), Data scientist with Python track (07/2020, DataCamp), Python bootcamp (03/2020, Udemy), Python for financial analysis and algorithmic trading (03/2020, Udemy).

Language skills

	Written skills	Verbal skills
German	native	native
English	fluent	fluent
Dutch	fluent	fluent
Norwegian (bokmål)	advanced (B2-C1)	advanced (B2-C1)