

Elisa Filevich

Junior Group Leader
<http://metamotorlab.filevich.com>

Bernstein Center for Computational Neuroscience

Philippstr. 13 Haus 6
10115 Berlin
Berlin, Germany
Tel +49 30 2093 6313
elisa.filevich@bccn-berlin.de

Research Profile

I am a cognitive neuroscientist investigating the neural correlates of consciousness. I focus on different aspects of motor awareness and subjective experiences associated with it: the awareness of intentions (volition), the awareness of control (agency) and motor experience (motor metacognition).

Academic Appointments

- | | |
|-------------|--|
| 2017 – now | Junior Group Leader - Funded by "Freigeist" Fellowship
Bernstein Center for Computational Neuroscience and Institute of Psychology,
Humboldt-Universität zu Berlin, Germany. |
| 2015 – 2017 | Scientific employee (Seminar instructor)
Faculty of Sports Sciences, Leipzig University, Germany.
Guest Researcher
Max Planck Institute for Human Development, Berlin, Germany. |
| 2012 – 2015 | Postdoctoral fellow. Structural Plasticity group
Max Planck Institute, Berlin, Germany
Team Leader: Dr. Simone Kühn |

Education and Training

- | | |
|-------------|--|
| 2008 – 2012 | PhD. Institute of Cognitive Neuroscience.
Intentional inhibition and human voluntary action. University College London. UK
Advisor: Prof. Patrick Haggard |
| 2012 | Visiting Scholar. Consciousness and Computation Laboratory
Columbia University, NY, USA
Advisor: Asst. Prof. Hakwan Lau |
| 2005 – 2007 | Undergraduate researcher. Laboratory of Molecular and Cellular Biology (LBMC). University of Buenos Aires, Argentina
Advisor: Prof. Osvaldo D. Uchitel |
| 2005 | Undergraduate researcher. Biochemistry and Molecular Biology.
Colorado State University, CO, USA
Advisor: Prof. James Bamberg |
| 2001 – 2007 | Licenciatura (equivalent to German "Diplom") in Biological Sciences.
University of Buenos Aires, Argentina.
Final grade: 8.6/10 |

Awards, Fellowships, and Research Grants

2018	Research Training Group (RTG). Deutsche Forschungsgemeinschaft (DFG) RTG 2386 "Extrospection". Role: Principal Investigator. Total funding for the cluster of 10 Principal Investigators: over 1.530.000 €
2016	Freigeist Fellowship. VolkswagenStiftung, Germany. Grant number 91620, 5 years, 919800 €
2008	Four-year PhD Studentship in Neuroscience. Wellcome Trust, UK. Grant number 086123/Z/08/Z, 4 years, over 120000 GBP
2008	Overseas Research Scholarships (ORS). Higher Education Funding Council for England (HEFCE). Fee funding to cover the difference between Overseas and UK/EU tuition fees.
2006	Undergraduate scholarship. ("Beca estímulo") University of Buenos Aires, Argentina.

Pre-prints

Publications in Peer-Reviewed Journals

* Indicates equal contributions

Total number of peer-reviewed publications: 17

h-index: 11

Total number of citations (source: Google Scholar): 551

2020	Filevich, E. , Koß, C., & Faivre, N. Response-related signals increase confidence but not metacognitive performance. <i>eNeuro</i> . (In Press) ENEURO.0326-19.2020. Filevich, E. , Forlim, C. G., Fehrman, C., Forster, C., Paulus, M., Shing, Y. L., & Kühn, S. (2020). I know that I know nothing: Cortical thickness and functional connectivity underlying meta-ignorance ability in pre-schoolers. <i>Developmental Cognitive Neuroscience</i> , 41, 100738. Rahnev, D., Desender, K., Lee, A.L.F., Adler, W.T., Aguilar-Lleyda, D., Akdoğan, B., ..., Zylberberg, A. (2020) The Confidence Database. <i>Nat Hum Behav.</i> 4, 317–325
2019	Karch, J. D., Filevich, E. , Wenger, E., Lisofsky, N., Becker, M., Butler, O., ... Kühn, S. (2019). Identifying predictors of within-person variance in MRI-based brain volume estimates. <i>NeuroImage</i> , 200, 575–589.
2018	Faivre, N., Filevich, E. , Solovey, G., Kühn, S., Blanke, O. Behavioural, modeling, and electrophysiological evidence for domain-generalty in human metacognition. <i>The Journal of Neuroscience</i> , 0322–17.
2017	Filevich, E.* , Horn, S. S*., & Kühn, S. Within-person adaptivity in frugal judgments from memory. <i>Psychological Research</i> 83 (3), 613-630 Filevich E.* , Lisofsky, N.*., Becker, M., Butler, O., Lochstet, M., Martensson, J., Wenger, E., Lindenberger, U. and Kühn, S. Day2day: Investigating daily variability of magnetic resonance imaging measures over half a year. <i>BMC Neuroscience</i> , 18:65.

Pannunzi, M., Hindriks, R., Bettinardi, R. G., Wenger, E., Lisofsky, N., Martensson, J., Butler, O., **Filevich, E.**, Becker, M., Lochstet, M., Kühn S., Deco, G. Resting-state fMRI correlations: from link-wise unreliability to whole brain stability. *NeuroImage* 157:250-262

Filevich, E., Becker, M., Wu, YH. & Kühn, S. Seeing double: Exploring the phenomenology of self-reported absence of rivalry in bistable pictures. *Frontiers in Human Neuroscience* 11:301.

2015 Lange, K., Kühn, S., **Filevich, E.**, "Just another tool for online studies" (JATOS): An easy solution for setup and management of web servers supporting online studies. *PLoS one*, 10(6).

Filevich, E., Dresler, M., Brick, T. R., & Kühn, S. Metacognitive mechanisms underlying lucid dreaming. *The Journal of Neuroscience*, 35(3), 1082–1088.

2013 **Filevich, E.**, Vanneste, P., Brass, M., Fias, W., Haggard, P. Kühn, S. Brain correlates of subjective freedom of choice. *Consciousness and Cognition* 22 (4), 1271-1284

Filevich, E., & Haggard, P. Persistence of internal representations of alternative voluntary actions. *Frontiers in Cognition*, 4: 202.

Filevich, E., Kühn, S., & Haggard, P. There is no free won't: Antecedent brain activity predicts decisions to inhibit. *PLoS one*, 8(2), e53053.

2012 **Filevich, E.**, Haggard, P. Grin and bear it! Neural consequences of a voluntary decision to act or inhibit action. *Experimental Brain Research*, 223(3), 341–351.

Filevich, E., Kühn, S., Haggard, P. Negative Motor Phenomena in cortical stimulation: implications for inhibitory control of human action. *Cortex* 48(10), 1251-1261

Filevich, E.*, Kühn, S.*, Haggard, P. Intentional inhibition in human action: The power of "no." *Neuroscience and Biobehavioral Reviews*, 36(4), 1107–1118.

Book Chapters

2014 Chambon, V. **Filevich, E.** Haggard, P. What is the human sense of agency, and is it metacognitive? In Stephen M. Fleming and Chris Frith (Eds). *The cognitive neuroscience of metacognition*. Springer

2012 **Filevich, E.** Haggard, P. Components of voluntary action. In Hallett, M., Lang, A. E., Jankovic, J., Fahn, S., Halligan, P. W., Voon, V., & Cloninger, C. R. (Eds.). *Psychogenic Movement Disorders and Other Conversion Disorders*. Cambridge University Press.

Dissertation

2013 **Filevich, E.** Volition and inhibition: Objective and subjective aspects of human volitional control. Doctoral thesis, UCL (University College London). <https://discovery.ucl.ac.uk/id/eprint/1383056/>

Invited Talks

- 2020** **LPC Lab Seminar, Aix-Marseille Université.** Motor Metacognition: How much does our brain know about the way it moves the body?
- 2019** **Workshop on Metacognition. Laboratoire de Psychologie et NeuroCognition (LPNC), Grenoble, France.** Motor metacognition: How does our brain know how our body moves?
Freie Universität Berlin - CCNB Seminar Series. Germany. Relationships between domains of metacognitive monitoring
- 2018** **Department of Experimental Psychology (Zangwill Club), Cambridge University, UK.** Metacognition of internally generated processes
- 2017** **Geneva University (Brain and Cognition Seminar), Switzerland.** Metacognition of internally generated processes
Experimental Psychology Society (EPS) Meeting, Belfast, UK. Domain-generalty in perceptual metacognition
- 2014** **Department of Psychology, Lund University, Sweden.** What we can learn from introspection

Presentations in Conferences (first author only)

- 2019** **Association for the Scientific Study of Consciousness (ASSC23),** London, Canada. Metacognitive access to high- and low-level aspects of motor control. (Plenary Symposium)
- 2018** **Association for the Scientific Study of Consciousness (ASSC22),** Cracow, Poland. The brain basis of meta-ignorance in pre-schoolers
- 2017** **Association for the Scientific Study of Consciousness (ASSC21),** Beijing, China. Metacognition of movement: the case of facial expressions.
- 2014** **Association for the Scientific Study of Consciousness (ASSC19),** Brisbane, Australia. Lucid dreaming, introspection and awareness of mind-wandering: behavioural and brain bases
Organization for Human Brain Mapping (OHBM), Hamburg, Germany. Faces and houses perceived simultaneously in monocular rivalry images: fMRI evidence
- 2012** **Society for Neuroscience (SfN),** New Orleans, USA. There is no free won't: antecedent brain activity predicts decisions to inhibit
Association for the Scientific Study of Consciousness (ASSC16), Brighton, UK. Brain correlates of subjective freedom of choice

2007 | **Argentine Society for Neuroscience Research (SAN)**, Argentina. Coupling of the Type-L Voltage Dependent Calcium Channel to membrane endocytosis in the mouse neuromuscular junction.
("Estudio del acoplamiento del canal de calcio dependiente de voltaje de tipo L a la endocitosis de membrana en la unión neuromuscular de ratón.")

Workshops Led

2020 | **Running experiments online.** 2.5 hours, Berlin School of Mind and Brain and Bernstein Center for Computational Neuroscience.

2019 | **Running web-based experiments in consciousness research.** 3 hours, Association for the Scientific Study (ASSC23), London, Canada.

2018 | **Running experiments online with JATOS.** 2.5 hours, MRC-Cognition and Brain Unit, Cambridge University, UK.

2016 | **Running experiments online with JATOS.** 5 hours, Graduate School for Mind and Brain, Humboldt-Universität zu Berlin, Germany

Teaching

2019 | **Seminar series: Neural Bases of Metacognition.** MSc, Berlin School of Mind and Brain. Humboldt-Universität zu Berlin. Course size: 9 students. Mean overall student rating: 5.11 (Minimum: 1 - Maximum: 6).

2018 – 2019 | **Contribution to lecture series. Neural bases of metacognition.** MSc course "Models of Neural Systems", Bernstein Center for Computational Neuroscience. Course size: ca. 30 students. Latest mean overall student rating: 1.8 (Minimum: 5 - Maximum: 1).

Contribution to lecture series ("Ringvorlesung"). Neural bases of metacognition. BSc, Institute for Psychology, Humboldt-Universität zu Berlin.

2015 – 2016 | **Seminar Instructor, Sport Psychology.** Leipzig University, Germany.

2010 | **Laboratory demonstrator, First year Psychology.** University College London, UK.

Student Supervision

2017 – now | **Supervision of PhD projects.** Total to date (ongoing): 2

2018 – now | **Secondary supervision of PhD projects.** Total to date (ongoing): 3

2019 – now | **Supervision of MSc theses projects.** Total to date: 1

2018 – now | **Supervision of 8-week rotation projects.** Total to date: 7

2010 – 2011 | **Informal supervision of 3-months projects for an MSc in Neuroscience course.** Total: 3

Ad-hoc Reviewing

2011 – now	Scientific Journals Brain; Brain and Neuroscience Advances; Cognition; Cortex; Experimental Brain Research; Frontiers in Consciousness Research; Journal of Neurophysiology; Journal of Neuroscience; Neuroimage; Neuropsychologia; Neuroscience and Biobehavioural Reviews; PLoS one; Proceedings of the National Academy of Sciences (PNAS); Psychology of Consciousness: Theory, Research, and Practice; Psychonomic Bulletin and Review; Scientific Reports; Social Cognitive and Affective Neuroscience (SCAN).
2019	Funding agencies Wellcome Trust, UK National Science Center Poland (NCN) Klaus-Tschira Boost fund - German Scholars Organization

Other Contributions

2019 – now	Team leader in the <i>Neural Architecture of Consciousness</i> consortium. Metacognition Working Group. Approximately 15 active members (https://neuralarchcon.org/).
2019	Member of Scientific Committee – Association for the Scientific Study of Consciousness (ASSC)
20178 – now	Member of ProFiL Network. Professional network, training and coaching for women in natural and social sciences working in universities in Berlin.
2014 – now	Software development. Active development of an open-source software tool to run experiments online. www.jatos.org
2010-2012	F1000 - Comments and recommendations on scientific articles

Additional Professional Training

2018	Workshop series from Wissenschaftsmanagement (ZWM): “Professionals in Science”. Included Communication and Conflict Management; Conducting Interviews; Research Project Management; Leadership.
2018	Workshop series from the ProFiL program (TU Berlin). Included Career Planning; Faculty Hiring Procedures in Germany and Abroad; Leadership; Academic Self-management; Writing Grant Applications.

Public Engagement

2015	The Long Night of the Sciences. Berlin, Germany (“Lange Nacht der Wissenschaften”) – Science outreach event.
2007	The Basement of Perception - Cognitive science outreach event. Museum of Natural History, Buenos Aires, Argentina.