

Elisa Filevich**Bernstein Center for Computational Neuroscience**

Junior Group Leader

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Nationality: Argentinian

Date of Birth: 23.08.1983

Marital status: Married, two children. Parental leaves: 2017, 8 months. 2021, 8 months (part-time).

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

Manuscripts Under Review

- 2022** | Prior information differentially affects discrimination decisions and subjective confidence reports.
Constant, M., Pereira, M., Faivre, N., & **Filevich, E.**
BioRxiv 2022.10.26.513829; doi: <https://doi.org/10.1101/2022.10.26.513829>
Under review (Nature Communications)

Publications in Peer-Reviewed Journals

* Indicates equal contributions

- 2023** | Motor outcomes congruent with intentions may sharpen metacognitive representations.
Charalampaki, A., Peters, C., Maurer, H., Maurer, L.K., Müller, H., Verrel, J., **Filevich, E.**
Cognition, 235, 105388.
- Impaired Metacognition of Voluntary Movement in Functional Movement Disorder.
Verrel, J., Chwolk, F., **Filevich, E.**, Moyé, J., Paulus, T., Zittel, S., Bäumer, T., Münchau, A. and Weissbach, A.
Mov Disord. <https://doi.org/10.1002/mds.29303>
- 2022** | Do I look like I'm sure?: Partial metacognitive access to the low-level aspects of one's own facial expressions.
Ciston, A. B., Forster, C., Brick, T. R., Kühn, S., Verrel, J., & **Filevich, E.**
Cognition, 225, 105155.
- Metacognitive domains are not aligned along a dimension of internal-external information source.
Arbuzova, P., Maurer, L.K. & **Filevich, E.**
Psychon Bull Rev (2022).
- Metacognitive improvement: Disentangling adaptive training from experimental confounds.
Rouy, M. de Gardelle, V., Reyes, G., Sackur, J., Vergnaud, J.C., **Filevich, E.***, Faivre, N.*.
Journal of Experimental Psychology: General, 151(9), 2083–2091.
- Consensus Goals in the Field of Visual Metacognition.
Rahnev, D., Balsdon, T., Charles, L., de Gardelle, V., Denison, R., Desender, K., Faivre, N., **Filevich, E.**, Fleming, S. M., Jehee, J., Lau, H., Lee, A. L. F., Locke, S. M., Mamassian, P., Odegaard, B., Peters, M., Reyes, G., Rouault, M., Sackur, J., ... Zylberberg, A.
Perspectives on Psychological Science 17(6), 1746–1765.
- No evidence of impaired visual and tactile metacognition in adults with tourette disorder.
Arbuzova, P., Guo, S., Koß, C., Kurvits, L., Faivre, N., Kühn, A. A., **Filevich, E.**, & Ganos, C.
Parkinsonism & Related Disorders, 97, 29–33.
- Spent time outdoors for your brain: An in-depth longitudinal MRI study.
Kühn, S., Mascherek, A., **Filevich, E.**, Lisofsky, N., Becker, M., Butler, O., et al.
The World Journal of Biological Psychiatry. The World Journal of Biological Psychiatry, 23(3), 201–207

- Judgments of agency are affected by sensory noise without recruiting metacognitive processing.
Constant, M., Salomon, R., **Filevich, E.**
eLife 11:e72356
- 2021** Measuring metacognition of direct and indirect parameters of voluntary movement.
Arbuzova, P., Peters, C., Roed, L., Koss, C., Maurer, H., Maurer, L. K., Mueller, H., Verrel, J., & **Filevich, E.**
Journal of Experimental Psychology: General, 150(11), 2208–2229.
- 2020** Response-related signals increase confidence but not metacognitive performance.
Filevich, E., Koß, C., & Faivre, N.
eNeuro 7(3) *eneuro.0326-19.2020*.
- I know that I know nothing: Cortical thickness and functional connectivity underlying meta-ignorance ability in pre-schoolers.
Filevich, E., Forlim, C. G., Fehrman, C., Forster, C., Paulus, M., Shing, Y. L., & Kühn, S. (2020).
Developmental Cognitive Neuroscience, 41, 100738.
- The Confidence Database.
Rahnev, D., Desender, K., Lee, A.L.F., Adler, W.T., Aguilar-Lleyda, D., Akdoğan, B., ..., **Filevich, E.**, ..., Zylberberg, A. (2020)
Nat Hum Behav. 4, 317–325
- 2019** Identifying predictors of within-person variance in MRI-based brain volume estimates.
Karch, J. D., **Filevich, E.**, Wenger, E., Lisofsky, N., Becker, M., Butler, O., ... Kühn, S. (2019).
NeuroImage, 200, 575–589.
- 2018** Behavioural, modeling, and electrophysiological evidence for domain-generalty in human metacognition.
Faivre, N., **Filevich, E.**, Solovey, G., Kühn, S., Blanke, O.
The Journal of Neuroscience, 0322–17.
- 2017** Within-person adaptivity in frugal judgments from memory.
Filevich, E.*, Horn, S. S*, & Kühn, S.
Psychological Research 83 (3), 613-630
- Day2day: Investigating daily variability of magnetic resonance imaging measures over half a year.
Filevich E.*, Lisofsky, N.*, Becker, M., Butler, O., Lochstet, M., Martensson, J., Wenger, E., Lindenberger, U. and Kühn, S.
BMC Neuroscience, 18:65.
- Resting-state fMRI correlations: from link-wise unreliability to whole brain stability.
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.
NeuroImage 157:250-262
- Seeing double: Exploring the phenomenology of self-reported absence of rivalry in bistable pictures. **Filevich, E.**, Becker, M., Wu, YH. & Kühn, S.
Frontiers in Human Neuroscience 11:301.

- 2015** “Just another tool for online studies” (JATOS): An easy solution for setup and management of web servers supporting online studies.
Lange, K., Kühn, S., **Filevich, E.**
PLoS one, 10(6).
- Metacognitive mechanisms underlying lucid dreaming.
Filevich, E., Dresler, M., Brick, T. R., & Kühn, S.
The Journal of Neuroscience, 35(3), 1082–1088.
- 2013** Brain correlates of subjective freedom of choice.
Filevich, E., Vanneste, P., Brass, M., Fias, W., Haggard, P. Kühn, S.
Consciousness and Cognition 22 (4), 1271-1284
- Persistence of internal representations of alternative voluntary actions.
Filevich, E., & Haggard, P.
Frontiers in Cognition, 4: 202.
- There is no free won't: Antecedent brain activity predicts decisions to inhibit.
Filevich, E., Kühn, S., & Haggard, P.
PLoS one, 8(2), e53053.
- 2012** Grin and bear it! Neural consequences of a voluntary decision to act or inhibit action.
Filevich, E., Haggard, P.
Experimental Brain Research, 223(3), 341–351.
- Negative Motor Phenomena in cortical stimulation: implications for inhibitory control of human action.
Filevich, E., Kühn, S., Haggard, P.
Cortex 48(10), 1251-1261
- Intentional inhibition in human action: The power of “no.”
Filevich, E.*, Kühn, S.*, Haggard, P.
Neuroscience and Biobehavioral Reviews, 36(4), 1107–1118.

Book Chapters

- 2014** What is the human sense of agency, and is it metacognitive?
Chambon, V. **Filevich, E.** Haggard, P. In Stephen M. Fleming and Chris Frith (Eds).
The cognitive neuroscience of metacognition. Springer
- 2012** Psychogenic Movement Disorders and Other Conversion Disorders.
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.).
Cambridge University Press.

Dissertation

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

Invited Talks

- 2022** **Women in Cognitive Science Seminar Series, Universidad del Desarrollo, Santiago, Chile.** (Online) How (much) do we know about the way we move our bodies?: Motor metacognition and its relationship to other metacognitive domains

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| 2021 | <p>Perception & Action Seminar Series. Cognitive, Linguistic, and Psychological Sciences department at Brown University. (Online) How (much) do we know about the way we move our bodies?: Motor metacognition and its relationship to other metacognitive domains</p> <p>Perceptual Confidence and Uncertainty workshop, Paris (Online). Are judgments of agency metacognitive?</p> <p>Consciousness Club, FIL. (Online) Motor Metacognition and agency. Talk recording available at http://metacoglab.org/consciousness-club-events/2021/1/27/elisa-filevich</p> |
| 2020 | <p>Copenhagen Cognition, Intention, and Action Group, University of Copenhagen. (Online Workshop) Motor metacognition and agency</p> <p>LPC Lab Seminar, Aix-Marseille Université. Motor Metacognition: How much does our brain know about the way it moves the body?</p> <p>Rahnev lab, Georgia Tech, School of Psychology. (Online) Motor metacognition: How does our brain know how our body moves?</p> |
| 2019 | <p>Workshop on Metacognition. Laboratoire de Psychologie et NeuroCognition (LPNC), Grenoble, France. Motor metacognition: How does our brain know how our body moves?</p> <p>Freie Universität Berlin - CCNB Seminar Series. Germany. Relationships between domains of metacognitive monitoring</p> |
| 2018 | <p>Department of Experimental Psychology (Zangwill Club), Cambridge University, UK. Metacognition of internally generated processes</p> |
| 2017 | <p>Geneva University (Brain and Cognition Seminar), Switzerland. Metacognition of internally generated processes</p> <p>Experimental Psychology Society (EPS) Meeting, Belfast, UK. Domain-generalitity in perceptual metacognition</p> |
| 2014 | <p>Department of Psychology, Lund University, Sweden. What we can learn from introspection</p> |

Presentations in Conferences (first author only)

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| 2020 | <p>Argentine Society for Neuroscience Research (SAN), Argentina. Symposium - Open Neuroscience: new approaches for new tools. "Just Another Tool for Online Studies": An open-source tool to conduct cognitive science experiments online.</p> |
| 2019 | <p>Association for the Scientific Study of Consciousness (ASSC23), London, Canada. Metacognitive access to high- and low-level aspects of motor control. (Plenary Symposium)</p> |
| 2018 | <p>Association for the Scientific Study of Consciousness (ASSC22), Cracow, Poland. The brain basis of meta-ignorance in pre-schoolers</p> |
| 2017 | <p>Association for the Scientific Study of Consciousness (ASSC21), Beijing, China. Metacognition of movement: the case of facial expressions.</p> |
| 2014 | <p>Association for the Scientific Study of Consciousness (ASSC19), Brisbane, Australia. Lucid dreaming, introspection and awareness of mind-wandering: behavioural and brain bases</p> |

- 2012** | **Organization for Human Brain Mapping (OHBM)**, Hamburg, Germany. Faces and houses perceived simultaneously in monocular rivalry images: fMRI evidence
- Society for Neuroscience (SfN)**, New Orleans, USA. There is no free won't: antedecent brain activity predicts decisions to inhibit
- Association for the Scientific Study of Consciousness (ASSC16)**, Brighton, UK. Brain correlates of subjective freedom of choice

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 – now** | **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): 3
- 2018 – now** | **Secondary supervision of PhD projects.** Total to date (ongoing): 5
- 2019 – now** | **Supervision of MSc theses projects.** Total to date: 5
- 2018 – now** | **Supervision of 8-week rotation projects.** Total to date: 11
- 2010 – 2011** | **Informal supervision of 3-months projects for an MSc in Neuroscience course.** Total: 3

Mentorship

2022	Mental Health and Early Career Researchers - Panel Discussion - Scholar Minds Berlin
2022	Growing Up In Science Talk - Scholar Minds Berlin
2021-2022	Mentor within the WiNS (Women in Natural Sciences) program

Ad-hoc Reviewing

2011 – now	Scientific Journals Behavior Research Methods; Brain; Brain and Neuroscience Advances; Cognition; Consciousness & Cognition; Cortex; eLife; Experimental Brain Research; Frontiers in Consciousness Research; Journal of Neurophysiology; Journal of Neuroscience; Neuroimage; Neuropsychologia; Neuroscience and Biobehavioural Reviews; Neuroscience of Consciousness; PLoS one; Proceedings of the National Academy of Sciences (PNAS); Psychology of Consciousness: Theory, Research, and Practice; Psychonomic Bulletin and Review; npj Science of Learning; Scientific Reports; Social Cognitive and Affective Neuroscience (SCAN).
2019 – now	Funding agencies Deutsche Forschungsgemeinschaft (DFG) Wellcome Trust, UK National Science Center Poland (NCN) Klaus-Tschira Boost fund - German Scholars Organization
2019 – now	Member of PhD Thesis Evaluation Committee Total to date: 3

Other Contributions

2022	Growing Up In Science Talk - Scholar Minds Berlin
2019 – now	Metacognition Working group leader in the <i>Neural Architecture of Consciousness</i> consortium. 15 active members (https://neuralarchcon.org/).
2019	Member of Scientific Committee – Association for the Scientific Study of Consciousness (ASSC)
2017 – 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

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

2022	Berlin Brains series. Urania Berlin, Germany. “Can you raise your left eyebrow?” Science outreach event. https://www.youtube.com/watch?v=def7O0judvg
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.

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 ten Principal Investigators: over 1,530,000 €
2016	Freigeist Fellowship. VolkswagenStiftung, Germany. Grant number 91620, 5 years, 919,800 €
2008	Four-year PhD Studentship in Neuroscience. Wellcome Trust, UK. Grant number 086123/Z/08/Z, 4 years, over 120,000 GBP
2008	Overseas Research Scholarships (ORS). Higher Education Funding Council for England (HEFCE). Funding to cover the difference between Overseas and UK/EU tuition fees.
2006	Undergraduate scholarship. (“Beca estímulo”) University of Buenos Aires, Argentina.

Languages

German	C1 (approximate level)
English	Fluent
Spanish	Native