

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

03.2023 - now	Junior Group Leader - Funded by "Freigeist" Fellowship Hector Research Institute of Education Sciences and Psychology Eberhard Karls Universität Tübingen, Germany.
2017 – 2023	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 / Preprints

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|-------------|--|
| 2023 | Chancel, M., Filevich, E. , & Faivre, N. (2023, April 4). Exogenous and endogenous sources of uncertainty inform global performance monitoring. https://doi.org/10.31234/osf.io/gbjy5 |
| 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
<i>Under review (Nature Communications)</i> |

Publications in Peer-Reviewed Journals

* Indicates equal contributions

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| 2023 | <p>Motor outcomes congruent with intentions may sharpen metacognitive representations.
Charalampaki, A., Peters, C., Maurer, H., Maurer, L.K., Müller, H., Verrel, J., Filevich, E.
<i>Cognition</i>, 235, 105388.</p> <p>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.
<i>Mov Disord.</i> https://doi.org/10.1002/mds.29303</p> |
| 2022 | <p>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.
<i>Cognition</i>, 225, 105155.</p> <p>Metacognitive domains are not aligned along a dimension of internal-external information source.
Arbuzova, P., Maurer, L.K. & Filevich, E.
<i>Psychon Bull Rev</i> (2022).</p> <p>Metacognitive improvement: Disentangling adaptive training from experimental confounds.
Rouy, M. de Gardelle, V., Reyes, G., Sackur, J., Vergnaud, J.C., Filevich, E.*, Faivre, N*.
<i>Journal of Experimental Psychology: General</i>, 151(9), 2083–2091.</p> <p>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.
<i>Perspectives on Psychological Science</i> 17(6), 1746–1765.</p> |

- 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
- 2021** **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
- Perceptual Confidence and Uncertainty workshop, Paris** (Online). Are judgments of agency metacognitive?
- Consciousness Club, FIL.** (Online) Motor Metacognition and agency. Talk recording available at <http://metacoglab.org/consciousness-club-events/2021/1/27/elisa-filevich>
- 2020** **Copenhagen Cognition, Intention, and Action Group, University of Copenhagen.** (Online Workshop) Motor metacognition and agency
- LPC Lab Seminar, Aix-Marseille Université.** Motor Metacognition: How much does our brain know about the way it moves the body?
- Rahnev lab, Georgia Tech, School of Psychology.** (Online) Motor metacognition: How does our brain know how our body moves?
- 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-generalizability in perceptual metacognition
- 2014** **Department of Psychology, Lund University, Sweden.** What we can learn from introspection

Presentations in Conferences (first author only)

- 2020** **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.

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

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

2023	Gespräch unter Bäumen. xHain Hacker Space, Berlin, Germany. “Studying subjective experience. Properly. We hope.” Science outreach event.
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