

Elisa Filevich

Junior Group Leader

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Personal Information

Nationality: Argentinian

Date of Birth: 23.08.1983

Marital status: Married, two children, born 2017 and 2021.

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 Bamburg
2001 – 2007	Licenciatura (equivalent to German “Diplom”) in Biological Sciences. University of Buenos Aires, Argentina. Final grade: 8.6/10

Preprints

- 2024** Constant, M., **Filevich, E.**, Mamassian, P. Long-term perceptual priors drive confidence bias which favors prior-congruent evidence. bioRxiv 2024.06.17.599305; doi: <https://doi.org/10.1101/2024.06.17.599305>
- 2023** Chancel, M., **Filevich, E.**, & Faivre, N. (2023, April 4). Exogenous and endogenous sources of uncertainty inform global performance monitoring. PsyArXiv. <https://doi.org/10.31234/osf.io/gbjy5>

Publications in Peer-Reviewed Journals

* Indicates equal contributions

- 2024** Charalampaki, A., Ciston, A. B., & **Filevich, E.** Contributions of tactile information to the sense of agency and its metacognitive representations. *Journal of Experimental Psychology: General*. (2024) Advance online publication. <https://doi.org/10.1037/xge0001634>
- 2023** Prior information differentially affects discrimination decisions and subjective confidence reports.
Constant, M., Pereira, M., Faivre, N., & **Filevich, E.**
Nat Commun **14**, 5473 (2023).
- 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, 38: 435-443.
- 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.
- 2022** 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.
- 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
- 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**
- 2024** **CVBE and Crowd Cognition labs. LMU Munich:** How (much) do we know about the way we move our bodies?: Motor metacognition and its relationship to other metacognitive domains.
- Voluntariness and Autonomy in Cognition and Neuroscience. Berlin School of Mind and Brain.** How can metacognition help us study volition?

	Meta-Ed workshop: Metacognition and education. Université Grenoble Alpes. “Come together”: Motor metacognition in music learning.
2023	<p>Cognitive Sciences Colloquium. University of Tübingen, Department of Computer Science. Measuring subjective experience (properly, we hope): Investigating metacognition of motor imagery.</p> <p>Metacognition and Consciousness Workshop, Marseille, France. Metacognition of motor imagery.</p> <p>1st European Summer School in Sensory Neuroscience (ESSN 2023). (Online) Measuring subjective experience.</p> <p>New Ideas in Volition. One-day workshop organised by the Berlin School of Mind and Brain. Metacognition of Agency.</p>
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	<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	Department of Experimental Psychology (Zangwill Club), Cambridge University, UK. Metacognition of internally generated processes
2017	<p>Geneva University (Brain and Cognition Seminar), Switzerland. Metacognition of internally generated processes</p> <p>Experimental Psychology Society (EPS) Meeting, Belfast, UK. Domain-generalty in perceptual metacognition</p>
2014	Department of Psychology, Lund University, Sweden. What we can learn from introspection

Presentations in Conferences (first author only)

2023	Association for the Scientific Study of Consciousness (ASSC26) , New York City, USA. Different metacognitive paradigms.
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

2023 – now	Understanding learning processes through experiments. MSc. (Together with Prof. Sakaki). Empirische Bildungsforschung und Pädagogische Psychologie. Course size: 9 students- Mean overall student rating: 1.2 (Minimum: 5 - Maximum: 1).
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 and Evaluation

2017 – now	Supervision of PhD projects. Completed: 1 - Ongoing: 3
2018 – now	Secondary supervision of PhD projects. Total to date (ongoing): 5
2019 - now	Member of PhD thesis committee. Total to date: 4
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

Mentoring

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 <i>Behavior Research Methods;</i> <i>Brain;</i> <i>Brain and Neuroscience Advances;</i> <i>Cognition;</i> <i>Consciousness & Cognition;</i> <i>Cortex;</i> <i>eLife;</i> <i>Experimental Brain Research;</i> <i>Frontiers in Consciousness Research;</i> <i>International Journal of Educational Research;</i> <i>Journal of Neurophysiology;</i> <i>Journal of Neuroscience;</i> <i>Nature Communications; Nature Communications Psychology;</i> <i>Neuroimage;</i> <i>Neuropsychologia;</i> <i>Neuroscience and Biobehavioural Reviews;</i> <i>Neuroscience of Consciousness;</i> <i>PLoS one;</i> <i>Proceedings of the National Academy of Sciences (PNAS);</i> <i>Psychology of Consciousness: Theory, Research, and Practice;</i> <i>Psychonomic Bulletin and Review;</i> <i>npj Science of Learning;</i> <i>Scientific Reports;</i> <i>Social Cognitive and Affective Neuroscience (SCAN);</i> <i>Trends in Cognitive Sciences</i>
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2019 – now **Funding agencies**
 Agence Nationale de la Recherche (ANR - France)
 Deutsche Forschungsgemeinschaft (DFG)
 Israel Science Foundation
 Klaus-Tschira Boost fund - German Scholars Organization
 National Science Center Poland (NCN)
 Wellcome Trust, UK

2019 – now **Member of PhD Thesis Evaluation Committee**
 Total to date: 4

Other Contributions

2022 **Growing Up In Science Talk - Scholar Minds Berlin**

2019 – now **Metacognition Working group leader in the *Neural Architecture of Consciousness* 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.** “Measuring subjective experience properly. We hope.” Scientific presentation and discussion.

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

2023	<p>Freigeist Fellowship - Second Funding Period. “ ‘Come together’: Bridging Education Research and Cognitive Neuroscience by Investigating Motor Metacognition in Music Learning” VolkswagenStiftung, Germany. 479,230 €</p> <p>Marie Skłodowska-Curie Actions - Doctoral Networks (DN) grant. “CODE (COntident DEcisions)”. European Commission. 2023. Funding for PhD training within a European consortium. Led by Prof. Janneke Jehee. Over 2.5 M€. My role: One of the ten fellows of the consortium.</p>
2018	<p>Research Training Group (RTG). Deutsche Forschungsgemeinschaft (DFG) RTG 2386 “Extrospection: External Acces to Higher Cognitive Processes”. Role: Principal Investigator. Total funding for the cluster of ten Principal Investigators: over 1,530,000 €</p>
2016	<p>Freigeist Fellowship. “Metacognition of action: behavioural and brain bases” VolkswagenStiftung, Germany. Grant number 91620, 5 years, 919,800 €</p>
2008	<p>Four-year PhD Studentship in Neuroscience. “Inhibitory processes in human voluntary action.” Wellcome Trust, UK. Grant number 086123/Z/08/Z, 4 years, over 148,000 GBP</p>
2008	<p>Overseas Research Scholarships (ORS). Higher Education Funding Council for England (HEFCE). Funding to cover the difference between Overseas and UK/EU tuition fees.</p>
2006	<p>Undergraduate scholarship. (“Beca estímulo”) University of Buenos Aires, Argentina.</p>

Languages

German	C1 (approximate level)
English	Fluent
Spanish	Native