

Elisa Filevich

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

Hector Research Institute of Education Sciences and Psychology
 Eberhard Karls Universität Tübingen, Germany.
 Europastraße 6, 72072
 Tübingen, Germany
 Tel +49 30 2093 6313
 elisa.filevich@uni-tuebingen.de

Personal Information

Nationality: Argentinian
 Date of Birth: 23.08.1983
 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 in Biological Sciences. Six-year university degree. University of Buenos Aires, Argentina. Final grade: 8.6/10

Preprints**2025**

- Testing a Metacognitive Account of the Attentional Focus Effect in Music Performance.
Orozco, M. P. V., Seefluth, D., Ciston, A. B., Sakaki, M., & **Filevich, E.** (2025, November 14). https://doi.org/10.31234/osf.io/wsm8t_v1

Publications in Peer-Reviewed Journals

* Indicates equal contributions

2025

- Long-term perceptual priors drive confidence bias that favors prior-congruent evidence.
Constant, M., **Filevich, E.**, Mamassian, P. (2025)
PLoS Comput Biol 21(12): e1013826.
- Comparing metacognitive representations of bodily and external agency
Charalampaki, A., Maurer, H., Maurer, L.K., Müller, H., **Filevich, E.**
eNeuro 9 December 2025, ENEURO.0164-25.2025
- Perceptual and attentional uncertainty impact global performance monitoring
Chancel, M., **Filevich, E.**, Faivre, N.
Neuroscience of Consciousness, Volume 2025, Issue 1, 2025, niaf041

2024

- Contributions of tactile information to the sense of agency and its metacognitive representations.
Charalampaki, A., Ciston, A. B., & **Filevich, E.**
Journal of Experimental Psychology: General, 153(10), 2427–2440.

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., Chwolka, 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.

	<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>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. <i>Parkinsonism & Related Disorders</i>, 97, 29–33.</p> <p>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. <i>The World Journal of Biological Psychiatry. The World Journal of Biological Psychiatry</i>, 23(3), 201-207</p> <p>Judgments of agency are affected by sensory noise without recruiting metacognitive processing. Constant, M., Salomon, R., Filevich, E. <i>eLife</i> 11:e72356</p>
2021	<p>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. <i>Journal of Experimental Psychology: General</i>, 150(11), 2208–2229.</p>
2020	<p>Response-related signals increase confidence but not metacognitive performance. Filevich, E., Koß, C., & Faivre, N. <i>eNeuro</i> 7(3) eeneuro.0326-19.2020.</p> <p>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). <i>Developmental Cognitive Neuroscience</i>, 41, 100738.</p> <p>The Confidence Database. Rahnev, D., Desender, K., Lee, A.L.F., Adler, W.T., Aguilar-Lleyda, D., Akdoğan, B., ..., Filevich, E...., Zylberberg, A. (2020) <i>Nat Hum Behav.</i> 4, 317–325</p>
2019	<p>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). <i>NeuroImage</i>, 200, 575–589.</p>
2018	<p>Behavioural, modeling, and electrophysiological evidence for domain-generality in human metacognition. Faivre, N., Filevich, E., Solovey, G., Kühn, S., Blanke, O. <i>The Journal of Neuroscience</i>, 0322–17.</p>
2017	<p>Within-person adaptivity in frugal judgments from memory. Filevich, E.*, Horn, S. S.*., & Kühn, S. <i>Psychological Research</i> 83 (3), 613-630</p>

	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. <i>BMC Neuroscience</i> , 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. <i>NeuroImage</i> 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. <i>Frontiers in Human Neuroscience</i> 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. <i>PLoS one</i> , 10(6).
	Metacognitive mechanisms underlying lucid dreaming. Filevich, E. , Dresler, M., Brick, T. R., & Kühn, S. <i>The Journal of Neuroscience</i> , 35(3), 1082–1088.
2013	Brain correlates of subjective freedom of choice. Filevich, E. , Vanneste, P., Brass, M., Fias, W., Haggard, P. Kühn, S. <i>Consciousness and Cognition</i> 22 (4), 1271-1284
	Persistence of internal representations of alternative voluntary actions. Filevich, E. , & Haggard, P. <i>Frontiers in Cognition</i> , 4: 202.
	There is no free won’t: Antecedent brain activity predicts decisions to inhibit. Filevich, E. , Kühn, S., & Haggard, P. <i>PLoS one</i> , 8(2), e53053.
2012	Grin and bear it! Neural consequences of a voluntary decision to act or inhibit action. Filevich, E. , Haggard, P. <i>Experimental Brain Research</i> , 223(3), 341–351.
	Negative Motor Phenomena in cortical stimulation: implications for inhibitory control of human action. Filevich, E. , Kühn, S., Haggard, P. <i>Cortex</i> 48(10), 1251-1261
	Intentional inhibition in human action: The power of “no.” Filevich, E. *, Kühn, S.*., Haggard, P. <i>Neuroscience and Biobehavioral Reviews</i> , 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	
2025	<p>Motor metacognition, motor awareness, and illusions of authorship. RLDM Seminar, Max Planck Institute for Biological Cybernetics, Tübingen</p> <p>Motor control and motor metacognition. Colloquium — Biological Psychology and Cognitive Psychology groups. University of Tübingen</p> <p>Illusions of Authorship in Music Playing. Symposium “The Social Nature of the Self”, Munich, Germany.</p> <p>Perspectives on Metacognition. College of Fellows, University of Tübingen: On Improving Domain-General Metacognition</p>
2024	<p>New Horizons on Action, Body and Space, College of Fellows, University of Tübingen: Motor control, awareness, and metacognition</p> <p>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.</p> <p>Voluntariness and Autonomy in Cognition and Neuroscience. Berlin School of Mind and Brain. How can metacognition help us study volition?</p> <p>Meta-Ed workshop: Metacognition and education. Université Grenoble Alpes. “Come together”: Motor metacognition in music learning.</p>
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	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-generality in perceptual metacognition
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: 3 - Ongoing: 2 <i>Polina Arbuzova - Passed</i> <i>Angeliki Charalampaki - Passed</i> <i>Marika Constant - Passed with distinction</i>
2018 – now	Secondary supervision of PhD projects. Total to date (ongoing): 6
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>Cell Reports;</i> <i>Cognition;</i> <i>Cognitive Psychology;</i> <i>Collabra: Psychology;</i> <i>Communications Psychology;</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;</i> <i>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>PNAS Nexus;</i> <i>Psychology of Consciousness: Theory, Research, and Practice;</i> <i>Psychology of Sport & Exercise;</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>
2019 – now	Funding agencies <i>Agence Nationale de la Recherche (ANR), France</i> <i>Deutsche Forschungsgemeinschaft (DFG), Germany</i> <i>Israel Science Foundation, Isreal</i> <i>Klaus-Tschira Boost fund - German Scholars Organization, Germany</i> <i>National Science Center (NCN), Poland</i> <i>Wellcome Trust, UK</i>
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 <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

- | | |
|-------------|--|
| 2025 | Workshop on public engagement “From Idea to Impact: Project Development in Science Communication”. |
| 2024 | Workshop: Giving and Taking Feedback Professionally - Strategies for a Constructive Feedback Culture. |
| 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

- | | |
|-------------|--|
| 2025 | Science on the Dance Floor. Dialogic science engagement project in collaboration with choreographer Irina Demina. www.scienceonthedancefloor.com |
| 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

- | | |
|-------------|---|
| 2025 | Additional Funding for Science Communication - “Science on the Dance Floor”: Understanding the Science of Motor Metacognition Through Dance. VolkswagenStiftung, Germany. 89.800 € . In collaboration with choreographer Irina Demina. |
| 2023 | Freigeist Fellowship - Second Funding Period. “ ‘Come together’: Bridging Education Research and Cognitive Neuroscience by Investigating Motor Metacognition in Music Learning” VolkswagenStiftung, Germany. 479,230 € |
| | Marie Skłodowska-Curie Actions - Doctoral Networks (DN) grant. “CODE (COnfident 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. |
| 2018 | 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 € |
| 2016 | Freigeist Fellowship. “Metacognition of action: behavioural and brain bases” VolkswagenStiftung, Germany. Grant number 91620, 5 years, 919,800 € |

2008	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
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