

**Elisa Filevich**

Hector Research Institute of Education Sciences and Psychology  
Eberhard Karls Universität Tübingen, Germany.

Junior Group Leader

<http://metamotorlab.filevich.com>

Europastraße 6, 72072

Tübingen, Germany

Tel +49 30 2093 6313

[elisa.filevich@uni-tuebingen.de](mailto:elisa.filevich@uni-tuebingen.de)

**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**

<b>03/2023 - now</b>	<b>Junior Group Leader - Funded by “Freigeist” Fellowship</b> Hector Research Institute of Education Sciences and Psychology Eberhard Karls Universität Tübingen, Germany.
<b>2017 – 2023</b>	<b>Junior Group Leader - Funded by “Freigeist” Fellowship</b> Bernstein Center for Computational Neuroscience and Institute of Psychology, Humboldt-Universität zu Berlin, Germany.
<b>2015 – 2017</b>	<b>Scientific employee (Seminar instructor)</b> Faculty of Sports Sciences, Leipzig University, Germany. <b>Guest Researcher</b> Max Planck Institute for Human Development, Berlin, Germany.
<b>2012 – 2015</b>	<b>Postdoctoral fellow. Structural Plasticity group</b> Max Planck Institute, Berlin, Germany Team Leader: Dr. Simone Kühn

**Education and Training**

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

**Preprints****2023**

Charalampaki, A., Ciston, A.B., **Filevich, E.** Contributions of tactile information to the sense of agency and its metacognitive representations. *BioRxiv* 2023.12.15.571840; doi: <https://doi.org/10.1101/2023.12.15.571840>

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

**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.

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	<p>Brain correlates of subjective freedom of choice.  <b>Filevich, E.</b>, Vanneste, P., Brass, M., Fias, W., Haggard, P. Kühn, S.  <i>Consciousness and Cognition</i> 22 (4), 1271-1284</p> <p>Persistence of internal representations of alternative voluntary actions.  <b>Filevich, E.</b>, &amp; Haggard, P.  <i>Frontiers in Cognition</i>, 4: 202.</p> <p>There is no free won't: Antecedent brain activity predicts decisions to inhibit.  <b>Filevich, E.</b>, Kühn, S., &amp; Haggard, P.  <i>PLoS one</i>, 8(2), e53053.</p>
2012	<p>Grin and bear it! Neural consequences of a voluntary decision to act or inhibit action. <b>Filevich, E.</b>, Haggard, P.  <i>Experimental Brain Research</i>, 223(3), 341–351.</p> <p>Negative Motor Phenomena in cortical stimulation: implications for inhibitory control of human action.  <b>Filevich, E.</b>, Kühn, S., Haggard, P.  <i>Cortex</i> 48(10), 1251-1261</p> <p>Intentional inhibition in human action: The power of “no.”  <b>Filevich, E.*</b>, Kühn, S.*, Haggard, P.  <i>Neuroscience and Biobehavioral Reviews</i>, 36(4), 1107–1118.</p>
<b>Book Chapters</b>	
2014	<p>What is the human sense of agency, and is it metacognitive?  Chambon, V. <b>Filevich, E.</b> Haggard, P. In Stephen M. Fleming and Chris Frith (Eds).  The cognitive neuroscience of metacognition. Springer</p>
2012	<p>Psychogenic Movement Disorders and Other Conversion Disorders.  <b>Filevich, E.</b> Haggard, P. Components of voluntary action. In Hallett, M., Lang, A. E., Jankovic, J., Fahn, S., Halligan, P. W., Voon, V., &amp; Cloninger, C. R. (Eds.).  Cambridge University Press.</p>
<b>Dissertation</b>	
2013	<p>Volition and inhibition: Objective and subjective aspects of human volitional control. <b>Filevich, E.</b> Doctoral thesis, UCL (University College London). <a href="https://discovery.ucl.ac.uk/id/eprint/1383056/">https://discovery.ucl.ac.uk/id/eprint/1383056/</a></p>
<b>Invited Talks</b>	
2024	<p><b>Meta-Ed workshop on metacognition and education.</b> “Come together”: Motor metacognition in music learning.</p>
2023	<p><b>Cognitive Sciences Colloquium. University of Tübingen, Department of Computer Science.</b> Measuring subjective experience (properly, we hope): Investigating metacognition of motor imagery.</p> <p><b>Metacognition and Consciousness Workshop, Marseille, France.</b>  Metacognition of motor imagery.</p> <p><b>1st European Summer School in Sensory Neuroscience (ESSN 2023).</b>  (Online) Measuring subjective experience.</p> <p><b>New Ideas in Volition. One-day workshop organised by the Berlin School of Mind and Brain.</b> Metacognition of Agency.</p>

2022	<b>Women in Cognitive Science Seminar Series, Universidad del Desarrollo, Santiago, Chile.</b> (Online) How (much) do we know about the way we move our bodies?: Motor metacognition and its relationship to other metacognitive domains
2021	<b>Perception &amp; Action Seminar Series. Cognitive, Linguistic, and Psychological Sciences department at Brown University.</b> (Online) How (much) do we know about the way we move our bodies?: Motor metacognition and its relationship to other metacognitive domains  <b>Perceptual Confidence and Uncertainty workshop, Paris</b> (Online). Are judgments of agency metacognitive?  <b>Consciousness Club, FIL.</b> (Online) Motor Metacognition and agency. Talk recording available at <a href="http://metacoglab.org/consciousness-club-events/2021/1/27/elisa-filevich">http://metacoglab.org/consciousness-club-events/2021/1/27/elisa-filevich</a>
2020	<b>Copenhagen Cognition, Intention, and Action Group, University of Copenhagen.</b> (Online Workshop) Motor metacognition and agency  <b>LPC Lab Seminar, Aix-Marseille Université.</b> Motor Metacognition: How much does our brain know about the way it moves the body?  <b>Rahnev lab, Georgia Tech, School of Psychology.</b> (Online) Motor metacognition: How does our brain know how our body moves?
2019	<b>Workshop on Metacognition. Laboratoire de Psychologie et NeuroCognition (LPNC), Grenoble, France.</b> Motor metacognition: How does our brain know how our body moves?  <b>Freie Universität Berlin - CCNB Seminar Series. Germany.</b> Relationships between domains of metacognitive monitoring
2018	<b>Department of Experimental Psychology (Zangwill Club), Cambridge University, UK.</b> Metacognition of internally generated processes
2017	<b>Geneva University (Brain and Cognition Seminar), Switzerland.</b> Metacognition of internally generated processes  <b>Experimental Psychology Society (EPS) Meeting, Belfast, UK.</b> Domain-generalizability in perceptual metacognition
2014	<b>Department of Psychology, Lund University, Sweden.</b> What we can learn from introspection

#### **Presentations in Conferences (first author only)**

2023	<b>Association for the Scientific Study of Consciousness (ASSC26)</b> , New York City, USA. Different metacognitive paradigms.
2020	<b>Argentine Society for Neuroscience Research (SAN)</b> , 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	<b>Association for the Scientific Study of Consciousness (ASSC23)</b> , London, Canada. Metacognitive access to high- and low-level aspects of motor control. (Plenary Symposium)
2018	<b>Association for the Scientific Study of Consciousness (ASSC22)</b> , Cracow, Poland. The brain basis of meta-ignorance in pre-schoolers
2017	<b>Association for the Scientific Study of Consciousness (ASSC21)</b> , Beijing, China. Metacognition of movement: the case of facial expressions.

2014	<p><b>Association for the Scientific Study of Consciousness (ASSC19)</b>, Brisbane, Australia. Lucid dreaming, introspection and awareness of mind-wandering: behavioural and brain bases</p> <p><b>Organization for Human Brain Mapping (OHBM)</b>, Hamburg, Germany. Faces and houses perceived simultaneously in monocular rivalry images: fMRI evidence</p>
2012	<p><b>Society for Neuroscience (SfN)</b>, New Orleans, USA. There is no free won't: antedecent brain activity predicts decisions to inhibit</p> <p><b>Association for the Scientific Study of Consciousness (ASSC16)</b>, Brighton, UK. Brain correlates of subjective freedom of choice</p>

### Workshops Led

2020	<b>Running experiments online.</b> 2.5 hours, Berlin School of Mind and Brain and Bernstein Center for Computational Neuroscience.
2019	<b>Running web-based experiments in consciousness research.</b> 3 hours, Association for the Scientific Study (ASSC23), London, Canada.
2018	<b>Running experiments online with JATOS.</b> 2.5 hours, MRC-Cognition and Brain Unit, Cambridge University, UK.
2016	<b>Running experiments online with JATOS.</b> 5 hours, Graduate School for Mind and Brain, Humboldt-Universität zu Berlin, Germany

### Teaching

2019	<b>Seminar series: Neural Bases of Metacognition.</b> 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	<p><b>Contribution to lecture series. Neural bases of metacognition.</b> 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).</p> <p><b>Contribution to lecture series (“Ringvorlesung”). Neural bases of metacognition.</b> BSc, Institute for Psychology, Humboldt-Universität zu Berlin.</p>
2015 – 2016	<b>Seminar Instructor, Sport Psychology.</b> Leipzig University, Germany.
2010	<b>Laboratory demonstrator, First year Psychology.</b> University College London, UK.

### Student Supervision and Evaluation

2017 – now	<b>Supervision of PhD projects.</b> Completed: 1 - Ongoing: 3
2018 – now	<b>Secondary supervision of PhD projects.</b> Total to date (ongoing): 5
2019 - now	<b>Member of PhD thesis committee.</b> Total to date: 4
2019 – now	<b>Supervision of MSc theses projects.</b> Total to date: 5
2018 – now	<b>Supervision of 8-week rotation projects.</b> Total to date: 11
2010 – 2011	<b>Informal supervision of 3-months projects for an MSc in Neuroscience course.</b> Total: 3

**Mentoring**

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

**Ad-hoc Reviewing**

2011 – now	<b>Scientific Journals</b> <i>Behavior Research Methods; Brain; Brain and Neuroscience Advances; Cognition; Consciousness &amp; Cognition; Cortex; eLife; Experimental Brain Research; Frontiers in Consciousness Research; Journal of Neurophysiology; Journal of Neuroscience; Nature Communications; Nature Communications Psychology; 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), Trends in Cognitive Sciences.</i>
2019 – now	<b>Funding agencies</b> Deutsche Forschungsgemeinschaft (DFG) Wellcome Trust, UK National Science Center Poland (NCN) Klaus-Tschira Boost fund - German Scholars Organization Agence Nationale de la Recherche (ANR - France)
2019 – now	<b>Member of PhD Thesis Evaluation Committee</b> Total to date: 4

**Other Contributions**

2022	<b>Growing Up In Science Talk - Scholar Minds Berlin</b>
2019 – now	<b>Metacognition Working group leader in the <i>Neural Architecture of Consciousness</i> consortium.</b> 15 active members ( <a href="https://neuralarchcon.org/">https://neuralarchcon.org/</a> ).
2019	<b>Member of Scientific Committee – Association for the Scientific Study of Consciousness (ASSC)</b>
2017 – now	<b>Member of ProFiL Network.</b> Professional network, training and coaching for women in natural and social sciences working in universities in Berlin.
2014 – now	<b>Software development.</b> Active development of an open-source software tool to run experiments online. <a href="http://www.jatos.org">www.jatos.org</a>

**Additional Professional Training**

2018	<b>Workshop series from Wissenschaftsmanagement (ZWM): “Professionals in Science”.</b> Included Communication and Conflict Management; Conducting Interviews; Research Project Management; Leadership.
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**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=def700judvg>

**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** | **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 (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.

**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