

**Elisa Filevich****Bernstein Center for Computational Neuroscience**

Junior Group Leader

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[elisa.filevich@bccn-berlin.de](mailto:elisa.filevich@bccn-berlin.de)**Personal Information**

Nationality: Argentinian

Date of Birth: 23.08.1983

Marital status: Married, two children. Parental leaves: 2017, 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>2017 – now</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

**Manuscripts Under Review** (Link to pre-prints included where available)

\* Indicates equal contributions

- 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**

- 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. <https://doi.org/10.1016/j.cognition.2023.105388>
- 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. <https://doi.org/10.1016/j.cognition.2022.105155>
- Judgments of agency are affected by sensory noise without recruiting metacognitive processing.  
Constant, M., Salomon, R., **Filevich, E.**  
*eLife* 2022;11:e72356
- 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.
- 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
- 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.

	<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>
<b>2012</b>	<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>	
<b>2014</b>	<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>
<b>2012</b>	<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>	
<b>2013</b>	<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>	
<b>2022</b>	<p><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</p>
<b>2021</b>	<p><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</p> <p><b>Perceptual Confidence and Uncertainty workshop, Paris</b> (Online). Are judgments of agency metacognitive?</p> <p><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></p>
<b>2020</b>	<p><b>Copenhagen Cognition, Intention, and Action Group, University of Copenhagen.</b> (Online Workshop) Motor metacognition and agency</p> <p><b>LPC Lab Seminar, Aix-Marseille Université.</b> Motor Metacognition: How much does our brain know about the way it moves the body?</p>

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|             | <b>Rahnev lab, Georgia Tech, School of Psychology.</b> (Online) Motor metacognition: How does our brain know how our body moves?  |
| <b>2019</b> | <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   |
| <b>2018</b> | <b>Department of Experimental Psychology (Zangwill Club), Cambridge University, UK.</b> Metacognition of internally generated processes                                   |
| <b>2017</b> | <b>Geneva University (Brain and Cognition Seminar), Switzerland.</b> Metacognition of internally generated processes  |
|             | <b>Experimental Psychology Society (EPS) Meeting, Belfast, UK.</b> Domain-generalitity in perceptual metacognition  |
| <b>2014</b> | <b>Department of Psychology, Lund University, Sweden.</b> What we can learn from introspection  |

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

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| <b>2020</b> | <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. |
| <b>2019</b> | <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)   |
| <b>2018</b> | <b>Association for the Scientific Study of Consciousness (ASSC22),</b> Cracow, Poland. The brain basis of meta-ignorance in pre-schoolers  |
| <b>2017</b> | <b>Association for the Scientific Study of Consciousness (ASSC21),</b> Beijing, China. Metacognition of movement: the case of facial expressions.  |
| <b>2014</b> | <b>Association for the Scientific Study of Consciousness (ASSC19),</b> Brisbane, Australia. Lucid dreaming, introspection and awareness of mind-wandering: behavioural and brain bases   |
|             | <b>Organization for Human Brain Mapping (OHBM),</b> Hamburg, Germany. Faces and houses perceived simultaneously in monocular rivalry images: fMRI evidence   |
| <b>2012</b> | <b>Society for Neuroscience (SfN),</b> New Orleans, USA. There is no free won't: antecedent brain activity predicts decisions to inhibit   |
|             | <b>Association for the Scientific Study of Consciousness (ASSC16),</b> Brighton, UK. Brain correlates of subjective freedom of choice  |

#### **Workshops Led**

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| <b>2020</b> | <b>Running experiments online.</b> 2.5 hours, Berlin School of Mind and Brain and Bernstein Center for Computational Neuroscience.                       |
| <b>2019</b> | <b>Running web-based experiments in consciousness research.</b> 3 hours, Association for the Scientific Study of Consciousness (ASSC23), London, Canada. |

<b>2018</b>	<b>Running experiments online with JATOS.</b> 2.5 hours, MRC-Cognition and Brain Unit, Cambridge University, UK.
<b>2016</b>	<b>Running experiments online with JATOS.</b> 5 hours, Graduate School for Mind and Brain, Humboldt-Universität zu Berlin, Germany

## Teaching

<b>2019</b>	<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).
<b>2018 – now</b>	<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).  <b>Contribution to lecture series (“Ringvorlesung”). Neural bases of metacognition.</b> BSc, Institute for Psychology, Humboldt-Universität zu Berlin.
<b>2015 – 2016</b>	<b>Seminar Instructor, Sport Psychology.</b> Leipzig University, Germany.
<b>2010</b>	<b>Laboratory demonstrator, First year Psychology.</b> University College London, UK.

## Student Supervision

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

## Mentorship

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

## Ad-hoc Reviewing

<b>2011 – now</b>	<b>Scientific Journals</b> 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).
<b>2019 – now</b>	<b>Funding agencies</b> Deutsche Forschungsgemeinschaft (DFG) Wellcome Trust, UK National Science Center Poland (NCN) Klaus-Tschira Boost fund - German Scholars Organization
<b>2019 – now</b>	<b>Member of PhD Thesis Evaluation Committee</b> Total to date: 3

## Other Contributions

<b>2022</b>	<b>Growing Up In Science Talk - Scholar Minds Berlin</b>
<b>2019 – now</b>	<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> ).
<b>2019</b>	<b>Member of Scientific Committee – Association for the Scientific Study of Consciousness (ASSC)</b>
<b>2017 – now</b>	<b>Member of ProFiL Network.</b> Professional network, training and coaching for women in natural and social sciences working in universities in Berlin.
<b>2014 – now</b>	<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

<b>2018</b>	<b>Workshop series from Wissenschaftsmanagement (ZWM): “Professionals in Science”.</b> Included Communication and Conflict Management; Conducting Interviews; Research Project Management; Leadership.
<b>2018</b>	<b>Workshop series from the ProFiL program (TU Berlin).</b> Included Career Planning; Faculty Hiring Procedures in Germany and Abroad; Leadership; Academic Self-management; Writing Grant Applications.

## Public Engagement

<b>2022</b>	<b>Berlin Brains series.</b> Urania Berlin, Germany. “Can you raise your left eyebrow?” Science outreach event. <a href="https://www.youtube.com/watch?v=def7O0judvg">https://www.youtube.com/watch?v=def7O0judvg</a>
<b>2015</b>	<b>The Long Night of the Sciences.</b> Berlin, Germany (“Lange Nacht der Wissenschaften”) – Science outreach event.
<b>2007</b>	<b>The Basement of Perception</b> - Cognitive science outreach event. Museum of Natural History, Buenos Aires, Argentina.

### Awards, Fellowships, and Research Grants

<b>2018</b>	<b>Research Training Group (RTG).</b> Deutsche Forschungsgemeinschaft (DFG) RTG 2386 “Extrospection”. Role: Principal Investigator. Total funding for the cluster of ten Principal Investigators: over 1,530,000 €
<b>2016</b>	<b>Freigeist Fellowship.</b> VolkswagenStiftung, Germany. Grant number 91620, 5 years, 919,800 €
<b>2008</b>	<b>Four-year PhD Studentship in Neuroscience.</b> Wellcome Trust, UK. Grant number 086123/Z/08/Z, 4 years, over 120,000 GBP
<b>2008</b>	<b>Overseas Research Scholarships (ORS).</b> Higher Education Funding Council for England (HEFCE). Funding to cover the difference between Overseas and UK/EU tuition fees.
<b>2006</b>	<b>Undergraduate scholarship.</b> (“Beca estímulo”) University of Buenos Aires, Argentina.

### Languages

<b>German</b>	C1 (approximate level)
<b>English</b>	Fluent
<b>Spanish</b>	Native