

# Matti Vuorre

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## Current Position

*Postdoctoral Research Scientist*, Columbia University, New York (May 2018 -)

## Areas of Specialization

cognitive psychology • metacognition • applied statistics

## Education

- 2018 PhD, Columbia University, USA
- 2017 MPhil, Columbia University, USA
- 2015 M.A, Columbia University, USA
- 2013 BSc (Hons) in Psychology, Victoria University of Wellington, New Zealand
- 2012 BSc in Psychology and Philosophy, Victoria University of Wellington, New Zealand

## Grants, Honors & Awards

- 2016 Leo Rubinstein Endowed Fellowship (Columbia University)  
Graduate Student Travel Award (Psychonomic Society)
- 2015 Leo Rubinstein Endowed Fellowship (Columbia University)  
Edward E. Smith Memorial Award in Cognitive Neuroscience (Columbia University)  
Best Student Poster Award (Association for the Scientific Study of Consciousness)
- 2013 Dean's Fellowship (Columbia University)
- 2012 Postgraduate Research Scholarship (Victoria University of Wellington)  
School of Psychology Graduate Prize (Victoria University of Wellington)  
Victoria University Graduate Award (Victoria University of Wellington)

## Publications & Academic Contributions

### **Works in progress**

Vuorre, M., & Metcalfe, J. (ms in prep). Unskilled but not so unaware.

Towner, E.\*, Vuorre, M.\*, & Metcalfe, J.\* (ms in prep). Confidence in errors is associated with increased curiosity.

### Journal articles

- 2019 Metcalfe, J., Brezler, J. C., McNamara, J., Maletta, G., & Vuorre, M. (2019). Memory, stress, and the hippocampal hypothesis: Firefighters' recollections of the fire-ground. *Hippocampus*. <https://doi.org/10.1002/hipo.23128>
- Bürkner, P.-C., & Vuorre, M. (2019). Ordinal regression models in psychology: A tutorial. *Advances in Methods and Practices in Psychological Science*. <https://doi.org/10.1177/2515245918823199>
- 2018 Bloom, P. A., Friedman, D., Xu, J., Vuorre, M., & Metcalfe, J. (2018). Tip-of-the-tongue states predict enhanced feedback processing and subsequent memory. *Consciousness and Cognition*. <https://doi.org/10.1016/j.concog.2018.05.010>
- Vuorre, M., & Curley, J. P. (2018). Curating research assets: A tutorial on the Git version control system. *Advances in Methods and Practices in Psychological Science*. <https://doi.org/10.1177/2515245918754826>
- Heino, M. T. J.\*, Vuorre, M.\*, & Hankonen, N. (2018). Bayesian evaluation of behavior change interventions: A brief introduction and a practical example. *Health Psychology and Behavioral Medicine: an Open Access Journal*. <https://doi.org/10.1080/21642850.2018.1428102>
- Chapman, S., Colvin, L. E., Vuorre, M., Cocchini, G., Metcalfe, J., Huey, E. D., & Cosentino, S. (2018). Cross domain self-monitoring in anosognosia for memory loss in Alzheimer's disease. *Cortex*. <https://doi.org/10.1016/j.cortex.2018.01.019>
- 2017 Vuorre, M. & Bolger, N. (2017). Within-subject mediation analysis for experimental data in cognitive psychology and neuroscience. *Behavior Research Methods*. <https://doi.org/10.3758/s13428-017-0980-9>
- Sidarus, N., Vuorre, M., & Haggard, P. (2017). Integrating prospective and retrospective cues to the sense of agency: a multi-study investigation. *Neuroscience of Consciousness*. <https://doi.org/10.1093/nc/nix012>
- Vuorre, M. & Metcalfe, J. (2017). Voluntary action alters the perception of visual illusions. *Attention, Perception, & Psychophysics*. <https://doi.org/10.3758/s13414-017-1321-x>
- Vuorre, M. (2017). On time, causation, and the sense of agency. *Journal of Consciousness Studies*. <http://www.ingentaconnect.com/contentone/imp/jcs/2017/00000024/F0020003/art00011>
- Sidarus, N., Vuorre, M., Metcalfe, J., & Haggard, P. (2017). Investigating the prospective sense of agency: Effects of processing fluency, stimulus ambiguity, and response conflict. *Frontiers in Psychology*. <https://doi.org/10.3389/fpsyg.2017.00545>

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\*Equal contribution.

- Sidarus, N., Vuorre, M., & Haggard, P. (2017). How action selection influences the sense of agency: An ERP study. *NeuroImage*. <https://doi.org/10.1016/j.neuroimage.2017.02.015>
- 2016 Vuorre, M. & Metcalfe, J. (2016). The relation between the sense of agency and the experience of flow. *Consciousness and Cognition*. <https://doi.org/10.1016/j.concog.2016.06.001>
- 2013 Michael, R. B., Newman, E. J., Vuorre, M., Cumming, G., & Garry, M. (2013). On the (non)persuasive power of a brain image. *Psychonomic Bulletin & Review*. <https://doi.org/10.3758/s13423-013-0391-6>

### **PhD thesis**

- 2018 Vuorre, M. (2018). Using visual illusions to examine action-related perceptual changes. <https://academiccommons.columbia.edu/catalog/ac:73n5tb2rdf>

### **Scientific software**

- 2017 Vuorre, M. (2017). bmlm: Bayesian Multilevel Mediation. R package version 1.3.4. <https://cran.r-project.org/package=bmlm>

### **Talks**

- 2018 Vuorre, M. (2018, February). Within-subject mediation analysis for experimental data in cognitive psychology and neuroscience. Talk presented at Columbia University.
- 2017 Vuorre, M., Sidarus, N., & Metcalfe, J. (2017, September). A meta-analytic review of agency cues. Talk presented at the *European Society for Cognitive Psychology* meeting, Potsdam, Germany.
- 2016 Vuorre, M. (2016, April). The pragmatist's guide to studying free will. Talk presented at the *Science of Consciousness* meeting, Tucson, Arizona.
- Vuorre, M. (2016, April). Voluntary actions cause a temporal rate-shift in visual awareness: Evidence from visual illusions. Talk presented at the *Science of Consciousness* meeting, Tucson, Arizona.
- 2015 Vuorre, M. & Metcalfe, J. (2015, June). Voluntary action and time perception. Talk presented at the *Toward a Science of Consciousness* meeting, Helsinki, Finland.

### **Other articles**

- 2016 Vuorre, M. (December 5, 2016). Introduction to data analysis using R. *JEPS Bulletin*. <http://blog.efpsa.org/2016/12/05/introduction-to-data-analysis-using-r/>
- 2014 Vuorre, M. (April 29, 2014). What your name says about how believable you are. *Scientific American*. <https://www.scientificamerican.com/article/what-your-name-says-about-how-believable-you-are/>

# Teaching

## Workshops taught

- 2019 Bayesian modelling with the Stan probabilistic programming language (Columbia University; <https://github.com/mvuarre/ulam>)
- 2018 Hierarchical modelling of change over time (University of Aberdeen)
- 2017 Within-subject mediation analysis for experimental data in cognitive psychology and neuroscience (Rutgers University; <https://github.com/mvuarre/2017-rutgers-mediation>)

## Teaching Assistantships

- 2018 Statistics for Behavioral Scientists (Columbia University)
- 2017 Introduction to Statistical Modeling in Psychology (Columbia University)
- 2016 Analysis of Change (Columbia University)
- The Science of Psychology (Columbia University)
- 2015 Experimental Psychology: Human Behavior (Columbia University)
- 2014 The Science of Psychology (Columbia University)
- 2013 Visual Perception (Victoria University of Wellington)
- Introduction to Psychology (Victoria University of Wellington)
- 2011 Introduction to Psychology (Victoria University of Wellington)

# Service to the profession

## Panels organized

Metacognition of agency workshop (2015, May), co-organizer and co-chair.

## Peer review service

Acta Psychologica  
Attention, Perception, & Psychophysics  
Journal of Consciousness Studies  
Journal of the Experimental Analysis of Behavior  
Psychology of Consciousness

# Languages

## Natural languages

Finnish (native)  
English (fluent)  
Swedish (basic)

## Programming languages

R  
Python  
Stan  
JavaScript  
HTML & CSS  
MATLAB