Matti Vuorre

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I am a cognitive and social scientist at the Oxford Internet Institute, where I study how digital environments relate to cognition and well-being using experimental, data science, and statistical methods.

Academic Positions

2020 - now Postdoctoral Researcher, Oxford Internet Institute, University of Oxford
 2018 - 2020 Postdoctoral Research Scientist, Department of Psychology, Columbia University

Education

2018 PhD, Columbia University, USA

2015 M.A, Columbia University, USA

2013 BSc (Hons), Victoria University of Wellington, New Zealand

Grants, Honors & Awards

Leo Rubinstein Endowed Fellowship (Columbia University)

Graduate Student Travel Award (Psychonomic Society)

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)

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., Zendle, D., Petrovskaya, E., Ballou, N., & Przybylski, A. K. (2021). A large-scale study of changes to the quantity, quality, and distribution of video game play during the COVID-19 pandemic. *PsyArXiv*. https://doi.org/10.31234/osf.io/8me6p

Journal articles

- Johannes, N.*, Vuorre, M.*, & Przybylski, A. K.* (2021). Video game play is positively correlated with well-being. *Royal Society Open Science*, 8(2), 202049. https://doi.org/10. 1098/rsos.202049
 - Vuorre, M., & Metcalfe, J. (2021). Measures of relative metacognitive accuracy are confounded with task performance in tasks that permit guessing. *Metacognition and Learning*. https://doi.org/10.1007/s11409-020-09257-1
- Vuorre, M.*, & Crump, M. J. C.* (2020). Sharing and organizing research products as R packages. *Behavior Research Methods*. https://doi.org/10.3758/s13428-020-01436-x
- Metcalfe, J., Brezler, J. C., McNamara, J., Maletta, G., & Vuorre, M. (2019). Memory, stress, and the hippocampal hypothesis: Firefighters' recollections of the fireground. *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
- 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
- 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

^{*}Equal contribution.

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

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

- 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
- 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

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

Scientific software

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

Talks

- Vuorre, M. (2018, February). Within-subject mediation analysis for experimental data in cognitive psychology and neuroscience. Talk presented at Columbia University.
- 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.
- 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.
- 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

- 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/
- 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

Courses

2021 Experiments for Social Data Science

Workshops

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

Teaching Assistantships

- 2018 Statistics for Behavioral Scientists (Columbia University)
- 2017 Introduction to Statistical Modeling in Psychology (Columbia University)
- 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

Advances in Methods and Practices in Psychological Science Acta Psychologica Attention, Perception, & Psychophysics International Journal of Psychology Journal of Adolescence Journal of Consciousness Studies Journal of the Experimental Analysis of Behavior Psychology of Consciousness

Languages

Natural languages

Programming languages

Finnish (native) R

English (fluent) Python
Swedish (basic) Stan

HTML & CSS & JavaScript