Matti Vuorre

» Curriculum vitae

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preprints
Zenodo

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CV 2024-08-14 [latest]

I am a psychological scientist at the Tilburg School for Social and Behavioral Sciences at Tilburg University, where I study how digital environments relate to cognition and well-being using experimental, data science, and statistical methods.

Academic Positions

Assistant Professor, Department of Social Psychology, Tilburg University
 Postdoctoral Researcher, Oxford Internet Institute, University of Oxford
 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

Research Funding

- Understanding the associations between online video game play and well-being in a representative Dutch sample. Tilburg University. (*Co-PI with M. Klincewicz. €8,577.*)

 How does digitalization associate with brain aging? Tilburg University. (*Co-PI with S. M. Kia. €12,000.*)
- Does the nose know? Validating immersive multisensory VR food environments to study eating behaviour. Tilburg University. (*Co-I with PI R. de Vries.* €16,344.)
- Understanding video game play and mental health. Economic and Social Research Council. (Co-I with Co-I K. Magnusson and PI A. Przybylski. £935,050.)
- The association between video game play and cognition. University of Oxford. (*PI.* £10,000)

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)
- 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

See Zotero or Google Scholar for the most up-to-date list of my publications.

Preprints

Ballou, N., Vuorre, M., Hakman, T., Magnusson, K., & Przybylski, A. K. (2024). Perceived value of video games, but not hours played, predicts mental well-being in adult Nintendo players. *PsyArXiv*. https://doi.org/10.31234/osf.io/3srcw

Ballou, N., Hakman, T., Vuorre, M., Magnusson, K., & Przybylski, A. K. (2024). How do video games affect mental health? A narrative review of 13 proposed mechanisms. *PsyArXiv*. https://doi.org/10.31234/osf.io/q2kxg

Journal articles

Vuorre, M., Ballou, N., Hakman, T., Magnusson, K., & Przybylski, A. K. (2024). Affective Uplift During Video Game Play: A Naturalistic Case Study. *Games: Research and Practice*. https://doi.org/10.1145/3659464

Johannes, N., Masur, P. K., Vuorre, M., & Przybylski, A. K. (2024). How should we investigate variation in the relation between social media and well-being? *Meta-Psychology*. https://doi.org/10.15626/MP.2022.3322

Vuorre, M., & Przybylski, A. K. (2024). A Multiverse Analysis of the Associations Between Internet Use and Well-Being. *Technology, Mind, and Behavior.* https://doi.org/10.1037/tmb0000127

Zloteanu, M., & Vuorre, M. (2024). A Tutorial for Deception Detection Analysis or: How I Learned to Stop Aggregating Veracity Judgments and Embraced Signal Detection Theory Mixed Models. *Journal of Nonverbal Behavior*. https://doi.org/10.1007/s10919-024-00456-x

Metcalfe, J., Xu, J., Vuorre, M., Siegler, R., Wiliam, D., & Bjork, R. A. (2024). Learning from errors versus explicit instruction in preparation for a test that counts. *British Journal of Educational Psychology*. https://doi.org/10.1111/bjep.12651

Vuorre, M., & Przybylski, A. K. (2023). Global Well-Being and Mental Health in the Internet Age. *Clinical Psychological Science*. https://doi.org/10.1177/21677026231207791 Weinstein, N., Vuorre, M., Adams, M., & Nguyen, T. (2023). Balance between solitude and socializing: Everyday solitude time both benefits and harms well-being. *Scientific Reports*. https://doi.org/10.1038/s41598-023-44507-7

Miller, J., Mills, K. L., Vuorre, M., Orben, A., & Przybylski, A. K. (2023). Impact of digital screen media activity on functional brain organization in late childhood: Evidence from the ABCD study. *Cortex.* https://doi.org/10.1016/j.cortex.2023.09.009

Vuorre, M., Magnusson, K., Johannes, N., Butlin, J., & Przybylski, A. K. (2023). An intensive longitudinal dataset of in-game player behaviour and well-being in PowerWash Simulator. *Scientific Data*. https://doi.org/10.1038/s41597-023-02530-3

Vuorre, M., & Przybylski, A. K. (2023). Estimating the association between Facebook adoption and well-being in 72 countries. *Royal Society Open Science*. https://doi.org/10. 1098/rsos.221451

Syed Sheriff, R. J., Vuorre, M., Riga, E., Przybylski, A. K., Adams, H., Harmer, C. J., & Geddes, J. R. (2022). A co-produced online cultural experience compared to a typical museum website for mental health in people aged 16–24: A proof-of-principle randomised controlled trial. *Australian & New Zealand Journal of Psychiatry*. https://doi.org/10.1177/00048674221115648

Metcalfe, J., Vuorre, M., Towner, E., & Eich, T. S. (2022). Curiosity: The effects of feedback and confidence on the desire to know. *Journal of Experimental Psychology: General.* https://doi.org/10.1037/xge0001284

Vuorre, M.*, Johannes, N.*, Magnusson, K., & Przybylski, A. K.* (2022). Time spent playing video games is unlikely to impact well-being. *Royal Society Open Science*. https://doi.org/10.1098/rsos.220411

Johannes, N.*, Vuorre, M.*, Magnusson, K., & Przybylski, A. K.* (2022). Time spent playing two online shooters has no measurable effect on aggressive affect. *Collabra: Psychology.* https://doi.org/10.1525/collabra.34606

Vuorre, M., Johannes, N., & Przybylski, A. K. (2022). Three objections to a novel paradigm in social media effects research. *PsyArXiv*. https://doi.org/10.31234/osf.io/dpuya

Vuorre, M., Orben, A., & Przybylski, A. K. (2021). There Is No Evidence That Associations Between Adolescents' Digital Technology Engagement and Mental Health Problems Have Increased. *Clinical Psychological Science*.

https://doi.org/10.1177/2167702621994549

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 a Global Health Pandemic. *Technology, Mind, and Behavior*. https://doi.org/10.1037/tmb0000048

Metcalfe, J., Kennedy-Pyers, T., & Vuorre, M. (2021). Curiosity and the desire for agency: Wait, wait ... don't tell me! *Cognitive Research: Principles and Implications*. https://doi.org/10.1186/s41235-021-00330-0

Johannes, N.*, Vuorre, M.*, & Przybylski, A. K.* (2021). Video game play is positively correlated with well-being. *Royal Society Open Science*. 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

What can psychological science tell us about video games and their effects? *Missing Link: How Video Games Impact Culture and Individuals, Tilburg.*

Intensive longitudinal dataset of video game play, well-being, and motivations: Case study of PowerWash Simulator. *International Convention of Psychological Science, Brussels*.

Frontiers in Video Game Science. *International Convention of Psychological Science*, *Brussels*.

- Time spent playing video games is unlikely to impact well-being. *International Communication Association meeting, Paris.*
- Within-subject mediation analysis for experimental data in cognitive psychology and neuroscience. *Columbia University*.
- A meta-analytic review of agency cues. European Society for Cognitive Psychology meeting, Potsdam, Germany.
- The pragmatist's guide to studying free will. Science of Consciousness meeting, Tucson, Arizona.
 - Voluntary actions cause a temporal rate-shift in visual awareness: Evidence from visual illusions. *Science of Consciousness meeting, Tucson, Arizona.*
- Voluntary action and time perception. *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/

Public Engagement & Media

Teknologia ei tuhonnut kansan psyykettä (December 25, 2023). Interview at *Helsingin Sanomat* (Finland)

Ny studie: Inga bevis för att internet skadar vårt välmående (December 17, 2023). Interview at SVT (Sweden)

6 Minute English: Is technology harmful to youngsters? (September 6, 2021). Interview at *BBC Learning English* (UK)

Tech does not impact teenage mental health (May 4, 2021). Interview at *BBC Digital Planet* (UK)

Teaching

Courses

- 2024- Experimental research (Tilburg University)
- 2023- Consumer Analytics using Big Data (Tilburg University)
- 2021-2022 Experiments for Social Data Science (University of Oxford)

Teaching Assistantships

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

Workshops

- 2023 Data visualization workshop (Tilburg University; Tilburg PhD Platform)
- 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)

Service to the profession

Member of Tilburg Young Academy Recommender at Peer Community In Registered Reports

I have acted as a peer reviewer for Advances in Methods and Practices in Psychological Science; Acta Psychologica; Attention, Perception, & Psychophysics; British Journal of Mathematical and Statistical Psychology; Communication Research; International Journal of Psychology; John Templeton Foundation; Journal of Adolescence; Journal of Consciousness Studies; Journal of the Experimental Analysis of Behavior; Journal of Experimental Psychology: General; Nature Human Behaviour; Peer Community In Registered Reports; Psychological Science; Psychology of Consciousness; and Royal Society Open Science. I always sign my reviews.