## Matti Vuorre

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### » Curriculum vitae

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preprints

Zenodo

GitHub

**CV** 2024-09-04 [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**

2023 - now Assistant Professor, Department of Social Psychology, Tilburg University

2020 - 2022 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

# Research Funding

Capturing the Digital Footprints of Video Game Play. Economic and Social Research Council. (Co-I with Co-I K. Magnusson and PI A. Przybylski. £263,696.)

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.*  $\epsilon$ 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

<sup>\*</sup>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)
  - <sup>2013</sup> Visual Perception (Victoria University of Wellington)
- 2011 & 2013 Introduction to Psychology (Victoria University of Wellington)

#### Workshops

- 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.