Wisnu Wiradhany

A cognitive scientist who studies how our interaction with digital technology and media can shape the way we process information, and vice versa. Born on October 5th, 1987 in Jakarta, Indonesia. Pronouns: he, his, him. Indonesian national. Speaks fluent English (CEFR C1) and beginner Dutch (CEFR A2). Adept R user. Knows a little bit of Python and JavaScript.

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SUMMARY

I am particularly interested in the interplay between media multitasking – interleaving two or more tasks, one of which involves media – and human cognition, especially in the context of learning. How do students decide when to study and when to play? Playing (e.g., accessing social media), which is characterized by low amount of effort and immediate gratification, stands in contrast to studying, which requires high effort and provides delayed gratification. Using the exploitation-exploration model of media multitasking, we aim to unravel why and how media multitasking occurs during learning at the micro level, through behavioral experiments and eye tracking, and at the macro level, through longitudinal surveys that are supported by semi-automated data donation. I am also interested in meta-science, especially in the open science movement. In our open science project, we investigate the extent to which open science practices help to curb questionable research practices (QRPs), considering situational and ethical reasoning factors. We also aim to develop a theory- and/or experience-based metacognitive intervention.

I teach undergraduate courses on learning and cognitive psychology, biopsychology, introduction to research methods, and experimental psychology and graduate course on quantitative research methods and test construction. I also taught academic writing in the past. I supervise undergraduate- and graduate-level thesis projects on open science and media multitasking at Atma Jaya and co-supervise PhD projects on self-regulated learning at the School of Health Professions Education, Maastricht University. In the past, I have supervised undergraduate- and master-level thesis projects at the Department of Psychology, University of Groningen.

I manage WyLab, one of the few experimental psychology labs in Indonesia. Together with my team, we have developed tutorial modules on how to tinker with survey platforms (e.g., LimeSurvey) to run online experiments, and how to install and run offline and online behavioral experiment platforms (OpenSesame and JATOS) at your own lab. Our lab resources, including these tutorial modules are available on osf: https://osf.io/agpzr/. We also offer workshops on request.

Together with colleagues from the Faculty of Psychology, YARSI University, and Psychology Department, BINUS University, we run monthly, semi-structured seminars on research methods, data analysis, and open science, preferably using open-source tools. The group has a Facebook page: https://www.facebook.com/jaspers.researchclub

WORK

- Head of Doctoral Program in Psychology, Faculty of Psychology, Atma Jaya Catholic University of Indonesia, 2024-now.
- Assistant Professor, Psychology (L200), Faculty of Psychology, Atma Jaya Catholic University of Indonesia, 2023-now.
- Head of Laboratory @Binus Kemanggisan (Assoc.), Psychology Department, Faculty of Humanities, BINUS University, Indonesia, 2020-2023.
- Assistant Professor, Psychology, Psychology Department, Faculty of Humanities, BINUS University, Indonesia, 2020-2023.
- Post-Doctoral Research Fellow, School of Health Professions Education, Faculty of Health, Medicine, and Life Sciences, Maastricht University, The Netherlands, 2020.
- Adjunct Lecturer, Department of Psychology, University of Groningen, The Netherlands, 2018-2019.
- Research Assistant, Center for Research and Public Engagements (PKPM), Atma Jaya Catholic University of Indonesia, 2010-2011.

EDUCATION

- Ph.D., Department of Experimental Psychology, Graduate School of Behavioural and Social Sciences & Research School of Behavioural Cognitive Neuroscience, University of Groningen, The Netherlands, 2019.
- M.A. (Cum Laude), Faculty of Psychology, Universitas Gadjah Mada, Yogyakarta, Indonesia, 2014.
- Master Exchange, Cognitive Psychology and Psychophysiology Program, Faculty of Behavioural and Social Sciences, University of Groningen, The Netherlands, 2013-2014.
- B.Sc. (Cum Laude), Faculty of Psychology, Atma Jaya Catholic University of Indonesia, Jakarta, Indonesia, 2010.

ACADEMIC EXPERIENCE

Publications (selected)

- de Bruin, A. B. H., Biwer, F., Hui, L., Onan, E., David, L., & **Wiradhany, W.** (2023). Worth the Effort: the Start and Stick to Desirable Difficulties (S2D2) Framework. *Educational Psychology Review*, 35(2), 41. https://doi.org/10.1007/s10648-023-09766-w
- Onan, E., **Wiradhany, W.**, Biwer, F., Janssen, E. M., & de Bruin, A. B. (2022). Growing Out of the Experience: How Subjective Experiences of Effort and Learning Influence the Use of Interleaved Practice. *Educational Psychology Review*, 34, 2451–2484 (2022). https://doi.org/10.1007/s10648-022-09692-3
- Baumgartner, S. E., Sumter, S., Petkevič, V., & **Wiradhany, W.** (2022) A novel iOS data donation approach: Automatic processing, compliance and reactivity in a longitudinal study. *Social Science Computer Review*. https://doi.org/10.1177/08944393211071068
- **Wiradhany, W.**, Baumgartner, S. E., & de Bruin, A. B. H. (2021). Exploitation-exploration model of media multitasking. *Journal of Media Psychology*, *33*(4), 169-180. https://doi.org/10.1027/1864-1105/a000303
- **Wiradhany, W.** & Koerts, J (2019). Everyday functioning-related cognitive correlates of media multitasking: A mini meta-analysis. *Media Psychology*, 24(2), 276-303. https://doi.org/10.1080/15213269.2019.1685393

- **Wiradhany**, **W.**, Vugt, M. K., & Nieuwenstein, M. R. (2019). Media multitasking, mind-wandering, and distractibility: A large-scale study. *Attention, Perception, and Psychophysics*, 82, 1112-1124. https://doi.org/10.3758/s13414-019-01842-0
- **Wiradhany, W.** & Nieuwenstein, M. R. (2017). Cognitive control in media multitaskers: Two replication studies and a meta-analysis. *Attention, Perception, and Psychophysics*, 79(8), 2620-2641. https://doi.org/10.3758/s13414-017-1408-4

Presentations (Academic, selected)

- **Wiradhany**, **W.**, & de Bruin. A. B. H. (2020). Stay or switch? Using pupillometry to monitor task engagement and task switching. Poster session. *The Psychonomic Society's 61th Annual Meeting* (virtual).
- **Wiradhany, W.,** Mathôt, S., & Nieuwenstein, M. R. (2018). The mere-presence effects of mobile phones?: The presence of mobile phones in the antisaccade task might be distracting regardless of their location. Poster session. *The Psychonomic Society's 59th Annual Meeting,* New Orleans, The United States of America.
- **Wiradhany, W.,** & Nieuwenstein, M. (2018). Multimedia-minded, but mindful: media multitasking is not associated with worse performance due to increased distractibility or reduced taskengagement. Poster session. *The Psychonomic Society's 3rd International Meeting*, Amsterdam, The Netherlands.
- **Wiradhany, W.,** & Baumgartner, S.E. (2017). The unity and diversity of media multitasking: Exploring the variability of the Media Use Questionnaire. Oral session. *The Asian Association of Social Psychology Conference 2017*, Auckland, New Zealand.

Presentations (Non-academic)

- <u>The paradox of multitasking</u>. Personal Productivity Science Labs Podcast the KPI Institute. Melbourne, Australia.
- Why would I not recommend you to multitask. *Science Communication Conference 2016*, Groningen, The Netherlands.

Teaching

- Quantitative Research Methods (2023). *Doctoral-level course*. Faculty of Psychology, Atma Jaya Catholic University of Indonesia.
- Psychological Measures Construction (2023). *Doctoral-level course*. Faculty of Psychology, Atma Jaya Catholic University of Indonesia.
- Learning and Cognitive Psychology. (2021-2023). 1st-year Bachelor-level course. Psychology Department, Bina Nusantara University.
- Biopsychology. (2020-2023). 1st-year Bachelor-level course. Psychology Department, Bina Nusantara University.
- Experimental Methods in Psychology. (2020-2023). *2nd-year Bachelor level course*. Psychology Department, Bina Nusantara University.
- Methodology of Psychological Research: Quantitative Methods. (2020-2023). 1st-year Bachelor-level course. Psychology Department, Bina Nusantara University.
- Academic Skills. (2018-2019). 1st-year Bachelor-level course (academic writing and critical thinking). Department of Psychology, University of Groningen.
- A Practical Introduction to Research Methods (2018-2019). *1st-year Bachelor-level course*. Department of Psychology, University of Groningen.

Research Practicum (2019). 2nd-year Bachelor level course (experiment data collection, analysis, and report writing). Department of Psychology, University of Groningen.

Supervision

- Wenzel, N. (2023-ongoing). Break-taking and effort regulation in learning. *Ph.D. Thesis*. School of Health Professions Education, Maastricht University (with Prof. Anique de Bruin).
- Onan, E. (2020-ongoing). Feedback and metacognition during desirable difficulties. *Ph.D. Thesis*. School of Health Professions Education, Maastricht University (with Prof. Anique de Bruin).
- Biwer, F. (2018-2022). Supporting Students to Study Smart: A Learning Sciences Perspective. *Ph.D. Thesis*. School of Health Professions Education, Maastricht University (with Prof. Anique de Bruin and Prof. Mirjam Oude Egbrink).
- Pócs, A. (2018-2019). The roles of task-related and task-unrelated distractions. *M.Sc. Thesis*. Department of Psychology, University of Groningen.
- Veenman, E. (2018-2019). Social media and distraction: The attention-grabbing property of notifications. *M.Sc. Thesis*. Department of Psychology, University of Groningen (with Dr. Berry van den Berg and Prof. Monicque Lorist).
- Funck, A, Bellinvia, L, Aleman, A., Neumann, C., Richa, S., & Boes, J. (2019-2020). Pupil dynamics in adaptive voluntary task switching. *B.Sc. Thesis*. Department of Psychology, University of Groningen.
- Born, M, Bick, N, Breiter, J., Roberg, J, & Sharma, S. (2018-2019). Pupil dynamics in voluntary task switching. *B.Sc. Thesis*. Department of Psychology, University of Groningen.
- Adams, Y. K. (2017). Pupil constrictions distinguish later recognised from unrecognised images but not recognised from unrecognised words. *B.Sc. Honors Thesis*. Department of Psychology, University of Groningen (with Dr. Mark Nieuwenstein and Dr. Sebastiaan Mathôt).

SCHOLARSHIPS, GRANTS, AND AWARDS

- Pausing with(out) Peers: Self- versus Co-regulation of Breaks to Optimize Learning. (2022). NWO Hestia-Impulse for Refugees in Science Grant. Role: Co-PI. Amount: €110.000
- Q2O: Closing the gap between questionable and open research practices using a metacognitive tool. (2021). NWO Open Science Funding 2021. Role: PI. Amount: €35.000
- First who, then what: Network analytic methods for identifying new collaborations in Psychology. (2018). *Heymans Institute Small Collaboration Grant*. Role: PI. Amount: €2000
- PhD scholarship (2015). Indonesian endowment funds for education, Ministry of Finance, Republic of Indonesia

Erasmus Mundus Master exchange scholarship. (2013). Erasmus Mundus Lotus III program.

PROFESSIONAL AFFILIATIONS

Member, Psychonomic Society, 2016-ongoing.

- Member, De Nederlandse Vereniging voor Psychonomie (The Dutch Psychonomic Society), 2015-2018.
- Member, Internet Funding Committee, Department of Psychology, Faculty of Behavioural and Social Sciences, University of Groningen, 2016-2019.
- Member, Heymans Institute PhD Psychology Council, University of Groningen, 2015-2018.