

Naohide Yamamoto, PhD

1 December 2023

I. BIOGRAPHICAL INFORMATION

CONTACT INFORMATION School of Psychology and Counselling Phone: +61 7 3138 4887
 Queensland University of Technology Email: naohide.yamamoto@qut.edu.au
 Victoria Park Road Web: <https://naohide.yamamoto.phd>
 Kelvin Grove QLD 4059, Australia ORCID: <https://orcid.org/0000-0001-9734-7470>

ACADEMIC APPOINTMENTS Queensland University of Technology, Brisbane, Australia (2014–Present)
 Senior Lecturer (2018–) and Lecturer (2014–18) in Psychology and Counselling
 Cleveland State University, Cleveland, OH, USA (2009–14)
 Assistant Professor of Psychology
 George Washington University, Washington, DC, USA (2007–09)
 Postdoctoral Scientist in Psychology

EDUCATION Johns Hopkins University, Baltimore, MD, USA (2002–07)
 PhD in Psychological and Brain Sciences (2007; official conferral in 2008)
 MA in Psychology (2004)
 University of Tokyo, Japan (Postgraduate Program; 1999–2002)
 MEng in Urban Engineering (2001)
 University of Tokyo, Japan (Undergraduate Program; 1995–99)
 BEng in Urban Engineering (1999)

II. SCHOLARSHIP

RESEARCH INTERESTS Broad: Cognitive psychology and neuroscience of spatial navigation
 Specific: Spatial perception and memory; psychological and neural mechanisms of locomotor navigation; visuospatial abilities and their lifespan development

PUBLICATIONS Anastasiou, C., Baumann, O., & **Yamamoto, N.** (2023). Does path integration contribute to human navigation in large-scale space? *Psychonomic Bulletin & Review*, *30*(3), 822–842. <https://doi.org/10.3758/s13423-022-02216-8>
 Baker, K. S., Johnston, P., **Yamamoto, N.**, & Pegna, A. J. (2023). Event-related potentials index prediction error signalling during perceptual processing of emotional facial expressions. *Brain Topography*, *36*(3), 419–432. <https://doi.org/10.1007/s10548-023-00951-2>
 Lowe, B. G., Robinson, J. E., **Yamamoto, N.**, Hogendoorn, H., & Johnston, P. (2023). Same but different: The latency of a shared expectation signal interacts with stimulus attributes. *Cortex*, *168*, 143–156. <https://doi.org/10.1016/j.cortex.2023.08.004>
 O'Donohue, M., Lacherez, P., & **Yamamoto, N.** (2023). Audiovisual spatial ventriloquism is reduced in musicians. *Hearing Research*, *440*, Article 108918. <https://doi.org/10.1016/j.heares.2023.108918>
 Rubie, E., Haworth, N., & **Yamamoto, N.** (2023). Passing distance, speed and perceived risks to the cyclist and driver in passing events. *Journal of Safety Research*. Advance online publication. <https://doi.org/10.1016/j.jsr.2023.09.007>
Yamamoto, N., & Nightingale, M. (2023). How well do we do social distancing? *Quarterly Journal of Experimental Psychology*. Advance online publication. <https://doi.org/10.1177/17470218231195247>

- Baker, K. S., **Yamamoto, N.**, Pegna, A. J., & Johnston, P. (2022). Violated expectations for spatial and feature attributes of visual trajectories modulate event-related potential amplitudes across the visual processing hierarchy. *Biological Psychology*, *174*, Article 108422. <https://doi.org/10.1016/j.biopsycho.2022.108422>
- O'Donohue, M., Lacherez, P., & **Yamamoto, N.** (2022). Musical training refines audiovisual integration but does not influence temporal recalibration. *Scientific Reports*, *12*, Article 15292. <https://doi.org/10.1038/s41598-022-19665-9>
- Allen-Davidian, Y., Russo, M., **Yamamoto, N.**, Kaufman, J., Pegna, A. J., & Johnston, P. (2021). Turning the face inversion effect on its head: Violated expectations of orientation, lighting, and gravity enhance N170 amplitudes. *Journal of Cognitive Neuroscience*, *33*(2), 303–314. <https://doi.org/10.1162/jocn.a.01656>
- Baker, K. S., Pegna, A. J., **Yamamoto, N.**, & Johnston, P. (2021). Attention and prediction modulations in expected and unexpected visuospatial trajectories. *PLOS ONE*, *16*(10), Article e0242753. <https://doi.org/10.1371/journal.pone.0242753>
- Shelton, A. L., & **Yamamoto, N.** (2021). Visual memory, spatial representation, and navigation. In J. Rummel (Ed.), *Current issues in memory: Memory research in the public interest* (pp. 27–63). Routledge. <https://doi.org/10.4324/9781003106715-4>
- Tiwari, K., Kyrki, V., Cheung, A., & **Yamamoto, N.** (2021). DeFINE: Delayed feedback-based immersive navigation environment for studying goal-directed human navigation. *Behavior Research Methods*, *53*(6), 2668–2688. <https://doi.org/10.3758/s13428-021-01586-6>
- Rubie, E., Haworth, N., Twisk, D., & **Yamamoto, N.** (2020). Influences on lateral passing distance when motor vehicles overtake bicycles: A systematic literature review. *Transport Reviews*, *40*(6), 754–773. <https://doi.org/10.1080/01441647.2020.1768174>
- Yamamoto, N.**, Fox, M. J., Boys, E., & Ord, J. (2019). Effects of orientation change during environmental learning on age-related difference in spatial memory. *Behavioural Brain Research*, *365*, 125–132. <https://doi.org/10.1016/j.bbr.2019.03.012>
- Li, X., Allen, P. A., Lien, M.-C., & **Yamamoto, N.** (2017). Practice makes it better: A psychophysical study of visual perceptual learning and its transfer effects on aging. *Psychology and Aging*, *32*(1), 16–27. <https://doi.org/10.1037/pag0000145>
- Yamamoto, N.** (2017). Distance perception. In J. S. Kreutzer, J. DeLuca, & B. Caplan (Eds.), *Encyclopedia of clinical neuropsychology* (continuously updated ed., pp. 1–5). Springer International Publishing. https://doi.org/10.1007/978-3-319-56782-2_9103-2
- Donaldson, M. J., & **Yamamoto, N.** (2016). Detection of object onsets and offsets: Does the primacy of onset persist even with bias for detecting offset? *Attention, Perception, & Psychophysics*, *78*(7), 1901–1915. <https://doi.org/10.3758/s13414-016-1185-5>
- Yamamoto, N.**, Incera, S., & McLennan, C. T. (2016). A reverse Stroop task with mouse tracking. *Frontiers in Psychology*, *7*, Article 670. <https://doi.org/10.3389/fpsyg.2016.00670>
- Yamamoto, N.**, Meléndez, J. A., & Menzies, D. T. (2014). Homing by path integration when a locomotion trajectory crosses itself. *Perception*, *43*(10), 1049–1060. <https://doi.org/10.1068/p7624>
- Yamamoto, N.**, Philbeck, J. W., Woods, A. J., Gajewski, D. A., Arthur, J. C., Potolicchio, S. J., Jr., Levy, L., & Caputy, A. J. (2014). Medial temporal lobe roles in human path integration. *PLOS ONE*, *9*(5), Article e96583. <https://doi.org/10.1371/journal.pone.0096583>
- Yamamoto, N.**, & Philbeck, J. W. (2013). Intrinsic frames of reference in haptic spatial learning. *Cognition*, *129*(2), 447–456. <https://doi.org/10.1016/j.cognition.2013.08.011>
- Yamamoto, N.**, & Philbeck, J. W. (2013). Peripheral vision benefits spatial learning by guiding eye movements. *Memory & Cognition*, *41*(1), 109–121. <https://doi.org/10.3758/s13421-012-0240-2>

- Donaldson, M. J., & **Yamamoto, N.** (2012). Detection of object onset and offset in naturalistic scenes. In C. Stachniss, K. Schill, & D. Uttal (Eds.), *Lecture Notes in Computer Science: Vol. 7463. Spatial Cognition VIII* (pp. 451–460). Springer-Verlag. https://doi.org/10.1007/978-3-642-32732-2_29
- Yamamoto, N.** (2012). The role of active locomotion in space perception. *Cognitive Processing*, 13(Suppl. 1), S365–S368. <https://doi.org/10.1007/s10339-012-0462-z>
- Yamamoto, N.**, & DeGirolamo, G. J. (2012). Differential effects of aging on spatial learning through exploratory navigation and map reading. *Frontiers in Aging Neuroscience*, 4, Article 14. <https://doi.org/10.3389/fnagi.2012.00014>
- Yamamoto, N.**, & Hirsch, D. A. (2012). “What” versus “how” in nonvisual whole-body movement. In N. Miyake, D. Peebles, & R. P. Cooper (Eds.), *Proceedings of the 34th Annual Conference of the Cognitive Science Society* (pp. 2558–2563). Cognitive Science Society. https://cognitivesciencesociety.org/wp-content/uploads/2019/01/cogsci12_proceedings.pdf
- Shelton, A. L., & **Yamamoto, N.** (2009). Visual memory, spatial representation, and navigation. In J. R. Brockmole (Ed.), *The visual world in memory* (pp. 140–177). Psychology Press. <https://doi.org/10.4324/9780203889770-11>
- Yamamoto, N.**, & Shelton, A. L. (2009). Orientation dependence of spatial memory acquired from auditory experience. *Psychonomic Bulletin & Review*, 16(2), 301–305. <https://doi.org/10.3758/PBR.16.2.301>
- Yamamoto, N.**, & Shelton, A. L. (2009). Sequential versus simultaneous viewing of an environment: Effects of focal attention to individual object locations on visual spatial learning. *Visual Cognition*, 17(4), 457–483. <https://doi.org/10.1080/13506280701653644>
- Yamamoto, N.**, & Shelton, A. L. (2008). Integrating object locations in the memory representation of a spatial layout. *Visual Cognition*, 16(1), 140–143. <https://doi.org/10.1080/13506280701692097>
- Yamamoto, N.**, & Shelton, A. L. (2007). Path information effects in visual and proprioceptive spatial learning. *Acta Psychologica*, 125(3), 346–360. <https://doi.org/10.1016/j.actpsy.2006.09.001>
- Yamamoto, N.**, & Shelton, A. L. (2005). Visual and proprioceptive representations in spatial memory. *Memory & Cognition*, 33(1), 140–150. <https://doi.org/10.3758/BF03195304>
- Ohba, T., Yanagimachi, K., Kinoshita, R., **Yamamoto, N.**, Tamagawa, H., & Itoh, F. (2002). Benefit evaluation for information providing system by WebGIS in view of users’ travel costs. *Theory and Applications of GIS*, 10(1), 59–66. [in Japanese] <https://doi.org/10.5638/thagis.10.59>
- Yamamoto, N.**, & Okabe, A. (2002). An experimental analysis of direction judgment in a curved corridor. *Journal of Architecture, Planning and Environmental Engineering*, 67(559), 165–170. [in Japanese] https://doi.org/10.3130/aija.67.165_3
- Yamamoto, N.**, & Okabe, A. (2002). Qualitative spatial reasoning about directions in a corridor containing a single turn. *MERA Journal*, 7(2), 11–20. [in Japanese] https://doi.org/10.20786/mera.7.2_11
- Yamamoto, N.** (1999). Review: GIS and spatial analysis of housing and mortgage markets. *The Quarterly Journal of Housing and Land Economics*, 33, 36–39. [in Japanese] https://www.hrf.or.jp/app/Display/popup/?table_id=table2&id=33

Van Pelt, J., Lowe, B. G., Robinson, J. E., Donaldson, M. J., Johnston, P., & **Yamamoto, N.** (2023). An event-related potential study of onset primacy in visual change detection. *bioRxiv*, 539932. <https://doi.org/10.1101/539932>

Yamamoto, N., Mach, D. E., Philbeck, J. W., & Van Pelt, J. (2018). Why is the duration of imagined walking underproduced? A dual-representation view on the mental imagery of locomotion. *PsyArXiv*. <https://doi.org/10.31234/osf.io/rm298>

RECENT AND
UPCOMING
CONFERENCE
PRESENTATIONS

Yamamoto, N., Cheung, A., Baumann, O., Nolan, C., & Anastasiou, C. (2023, December 5–6). *Navigation under uncertainty* [Poster presentation]. Defence Human Sciences Symposium, Brisbane, Australia.

Rubie, E., Haworth, N., & **Yamamoto, N.** (2023, November 15–17). *The safety of group compared to individual cyclists when cars pass on urban roads in Queensland, Australia* [Paper presentation]. The 11th International Cycling Safety Conference, The Hague, The Netherlands.

O'Donohue, M., Lacherez, P., & **Yamamoto, N.** (2023, September 6–9). *Musical training expertise reduces audiovisual spatial ventriloquism* [Paper presentation]. The 23rd Conference of the European Society for Cognitive Psychology, Porto, Portugal.

Lowe, B., Robinson, J., **Yamamoto, N.**, Hogendoorn, H., & Johnston, P. (2023, July 27). *Same but different: The latency of a shared expectation signal interacts with stimulus attributes* [Paper presentation]. Brisbane Cognition Conference 2023, Brisbane, Australia.

Yamamoto, N., Cheung, A., Baumann, O., Nolan, C., & Anastasiou, C. (2023, July 27). *Finding self-location without external sensory cues* [Paper presentation]. Brisbane Cognition Conference 2023, Brisbane, Australia.

Yamamoto, N., Cheung, A., Baumann, O., Nolan, C., & Anastasiou, C. (2023, July 25). *Navigation by path integration: Are idiothetic cues sufficient for human navigators to find their location in a familiar environment?* [Paper presentation]. Navigating spaces symposium at Bond University, Gold Coast, Australia.

Chan, J., & **Yamamoto, N.** (2022, November 17–20). *Imagined walking and side-stepping with and without attention* [Paper presentation]. The 63rd annual meeting of the Psychonomic Society, Boston, MA.

Rubie, E., Haworth, N., & **Yamamoto, N.** (2022, November 8–10). *Passing distance, speed and perceived risks to the cyclist and driver in passing events* [Paper presentation]. The 10th International Cycling Safety Conference, Dresden, Germany.

Lowe, B., Robinson, J., Hughes, M., **Yamamoto, N.**, & Johnston, P. (2022, July 11–14). *Dissociating attribute-specific prediction error responses across the cerebral cortex* [Poster presentation]. The Australasian Brain and Psychological Sciences Meeting, Brisbane, Australia.

Nightingale, M., Bradshaw, N., & **Yamamoto, N.** (2022, July 11–14). *Contextual cueing—what is it that is learnt?* [Paper presentation]. The Australasian Brain and Psychological Sciences Meeting, Brisbane, Australia.

RESEARCH
GRANTS

Hanazawa, S., Wada, K., **Yamamoto, N.**, & Tanaka, Y. *Elucidating visual characteristics of Edo-period urban environments via spatial cognition experiments and virtual reality*. Internal research grant program, Shizuoka University of Art and Culture, Japan (2023–24, JP¥752,000)

Yamamoto, N., & Cumming, P. *Imaging the navigating brain in the real world*. Faculty of Health, Queensland University of Technology (2017–19, A\$40,000)

Yamamoto, N., & Johnston, P. *An fMRI study on the brain's location tracking system*. Mid-Career Researcher Development Scheme, Institute of Health and Biomedical Innovation, Queensland University of Technology (2016–18, A\$9,920)

Yamamoto, N. Early Career Academic Recruitment and Development Grant, Queensland University of Technology (2015–16, A\$15,000)

Yamamoto, N. *Space perception across the lifespan*. Undergraduate Research and Creative Achievement Award, Cleveland State University (2013, US\$9,760)

Yamamoto, N. *Spatial navigation by patients with Parkinson's disease*. Faculty Research and Development Award, Cleveland State University (2012–13, US\$19,964)

Yamamoto, N. *Roles of afferent and efferent signals in space perception*. Undergraduate Research and Creative Achievement Award, Cleveland State University (2012, US\$7,177)

Yamamoto, N. *Schizotypal traits and self-motion sensing: Exploring the role of bodily senses in space perception*. Undergraduate Research and Creative Achievement Award, Cleveland State University (2011, US\$4,448)

Yamamoto, N. *Systems analysis of distance perception through self-motion senses*. Undergraduate Research and Creative Achievement Award, Cleveland State University (2010, US\$6,947)

AWARDS AND FELLOWSHIPS

Faculty Merit Recognition Award, Cleveland State University (2012 and 2013)
Graduate Fellowship, The Nakajima Foundation (2002–07)
Fulbright Award for Graduate Study, Japan-US Educational Commission (2002)*

PROFESSIONAL MEMBERSHIP

Australasian Cognitive Neuroscience Society (2014–Present)
Association for the Scientific Study of Consciousness (2013–Present)
Psychonomic Society (2007–Present)
Member of Program Review Committee (2018–Present)
Timing Research Forum (2017–Present)

III. TEACHING AND MENTORSHIP

TEACHING INTERESTS

Broad: Cognitive psychology and neuroscience
Specific: Sensation and perception; memory and cognition; research methods; psychology lab; psychology of aging; spatial cognition; environmental psychology

QUALIFICATIONS

Fellow of the Higher Education Academy, UK (2016)
Graduate Certificate in Academic Practice, Queensland University of Technology (2016)

COURSES TAUGHT

Queensland University of Technology (2014–Present)
Psychological Research Methods; Perception and Cognition; Cognitive Neuropsychology
Cleveland State University (2009–14)
Memory and Cognition (both traditional and fully online formats); Brain and Cognition; Psychology Lab; Honors Seminar; Sensorimotor Processes in Adulthood; Field Placement; Independent Study; Research and Thesis
Johns Hopkins University (2006)
Lab in Analysis of Psychological Data

TEACHING OR TRAINING GRANTS

Judge, K., McLennan, C., **Yamamoto, N.**, & Kahana, B. *Fellowship in applied aging research*. Benjamin Rose Institute on Aging (2012–13, US\$7,000)

* Alternate candidate; declined due to funding overlap with the Nakajima fellowship

Yamamoto, N. *E-learning program development.* Cleveland State University Center for eLearning (2011, funding for release from teaching)

STUDENTS
SUPERVISED

Postgraduate Students (at Queensland University of Technology unless noted otherwise)

Ian Burch (MPhil, 2023–Present)
 Matthew O'Donohue (PhD, 2020–Present)
 Benjamin Lowe (PhD, 2019–23)[†]
 Kristen Baker (PhD, 2018–22)[†]
 Elisabeth Rubie (MPhil & PhD, 2017–21)
 Nicholas Chaaya (PhD, 2016–19)
 Anne Overell (PhD, 2016–22)
 Michael Fox (Cleveland State University, MA, 2012–14)[†]
 Lucinda Rohde (Cleveland State University, MA, 2012–15)[†]
 Dale Hirsch (Cleveland State University, MA, 2011–13)[†]
 Gregory DeGirolamo (Cleveland State University, MA, 2010–12)[†]
 Maria Donaldson (Cleveland State University, MA & PhD, 2009–14)[†]

Undergraduate Students (including honours students in Australia)

At Queensland University of Technology: Christopher Anastasiou; Ellen Boys; Nicole Bradshaw; Caitlin Burke; Thessa Canzon; Jared Chan; Indianna Colledge; Emma Francis; Melina Gilson; Alani Hope; Brendan James; Joel Maczkowiack; Mia Nightingale; Jodi Ord; Joanne Renton; Jennifer Van Pelt

At Cleveland State University: Serena Cristino; Laura Elias; Astrid Hernandez; Dale Hirsch; Anita Isom; Kamil Klinkosz; Dagmara Mach; Jayleen Meléndez; Derek Menzies; Kimberly Moran; Evelyn Muschter; Govind Sailesh Pappu; Saliha Qadir; Lucinda Rohde; Jessica Willesch

IV. SERVICE

EDITORIAL
ACTIVITIES

Editorial Board Membership

Journal of Experimental Psychology: Human Perception and Performance (2023–Present)
 Scientific Reports (2023–Present)
 BMC Psychology (2021–Present)
 Journal of Experimental Psychology: Learning, Memory, and Cognition (2014–Present)

Ad-Hoc Reviewer

Journals: Acta Psychologica; Aging, Neuropsychology, and Cognition; Attention, Perception, & Psychophysics; British Journal of Psychology; Cities; Communications Psychology; Experimental Brain Research; Frontiers in Human Neuroscience; Frontiers in Psychology; Human Factors; International Journal of Aging and Human Development; Investigative Ophthalmology & Vision Science; iScience; Journal of Clinical and Experimental Neuropsychology; Journal of Environmental Psychology; Journal of Experimental Psychology: General; Journal of Experimental Psychology: Human Perception and Performance; Journal of Experimental Psychology: Learning, Memory, and Cognition; Journals of Gerontology B: Psychological Sciences; Journal of Motor Behavior; Journal of Vestibular Research; Memory & Cognition; Nature Human Behaviour; Perceptual & Motor Skills; PLOS ONE; Psychological Research; Psychology and Aging; Psychonomic Bulletin & Review; Scientific Reports; Seeing and Perceiving; Spatial Cognition and Computation; Swiss Journal of Psychology; Visual Cognition

Books: Cognitive Science Society; MIT Press; Princeton University Press

[†]Supervised as Principal Supervisor

GRANT REVIEW	Ad-Hoc Reviewer Alzheimer's Disease Center Pilot Grant, University of California, Davis Innovational Research Incentives Scheme, Netherlands Organisation for Scientific Research
UNIVERSITY SERVICE	Queensland University of Technology Research Ethics Advisor in Psychology and Counselling (2021–Present) Deputy Director of Postgraduate Research in Psychology and Counselling (2018–19) Administrator of Qualtrics in Psychology and Counselling (2017–Present) Cleveland State University Director of Psychology Honors Program (2013) Administrator of Psychology Research Participant Pool (2012–14) Advisor to Psychology Pre-Medical Students (2012–14) Member of Adult Development and Aging PhD Program Committee (2009–14) Member of Experimental Psychology MA Program Committee (2009–14)

V. REFERENCES

Available upon request