Hidekazu **Nagamura**

PhD Student at Doshisha University

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Summary

I am a PhD student at Doshisha University, supervised by Prof. Dr. Kohta I. Kobayasi. My research focuses on exploring the functional and phenomenological dimensions of the "self". This exploration involves studying metacognition and the sensation of self-voice, employing a range of methods including psychological, physiological, and neural measurements. Additionally, I have a keen interest in addressing reproducibility issues, aiming to validate and refine these measurement methodologies.

KEYWORDS: Cognitive Neuroscience, Sense of Self, Voice Perception, Metacognition, Statistical Modeling, Reproducibility

Education

Graduate School of Life and Medical Sciences (Doctoral Course), Doshisha University — *Kyoto, Japan*

PhD in Engineering — *Apr. 2022 - present*

- Supervisor: Prof. Dr. Kohta I. Kobayasi

Master of Science in Engineering — *Kyoto, Japan*

Graduate School of Life and Medical Sciences (Master Course), Doshisha University — *Apr. 2020 - Mar. 2022*

- Supervisor: Prof. Dr. Kohta I. Kobayasi

Bachelor of Engineering — *Kyoto, Japan*

Faculty of Life and Medical Sciences, Doshisha University — *Apr. 2016 - Mar. 2020*

- Supervisor: Assoc. Prof. Dr. Kohta I. Kobayasi

Teaching Experience

Learning Assistant

Doshisha University — *Mar. 2022 - present*

- Provide advice and consultation to undergraduates on out-of-class learning based on the expertise.

Teaching Assistant

Doshisha University — *Apr. 2020 - Aug. 2022*

- Medical Information Laboratory, Sensory Information Systems, Bachelor Thesis

Supervision of Thesis Research

Doshisha University — *Apr. 2020 - present*

- Supervision of 4 Mater Students and 4 Bachelor Students

Industory Experience

Freelance Researcher — *Online*

Sandbox Inc. — *May. 2022 - Mar. 2023*

- Built psychological experiment designs to evaluate customer product performance.

Part-time Software Engineer — *Kyoto, Japan*

HACARUS INC. — *Jul. 2019 - Mar. 2022*

- Implemented in-house machine learning library in C++ for speed-up and use on hardware.

Software Engineering Intern — *Online*

Future Corporation — *Aug. 2020 - Sep. 2020*

- Developed web applications in Go, Vue.js.

Software Engineering Intern — *Osaka, Japan*

Chartwork Co., Ltd. — *Aug. 2019 - Sep. 2019*

- Implemented toy application in Scala with Scrum development and Domain Driven Design.

Part-time Software Engineer *Kyoto, Japan*

Donuts Co. Ltd. *Jun. 2018 - Jul. 2019*

- Developed a mobile game in PHP.

Skills

Programming Python, MATLAB, R, Presentation (neurobs), C++, HTML/CSS, JavaScript, TypeScript, Bash, Go, Rust, LaTeX

Tools PsychoPy, Psychtoolbox, Docker, Tidyverse, brms, PsyNet, Gorilla.sc, JAGS, fMRI, Physiological Measurement (Pupil Diameter, Electrodermal Activity)

Languages Japanese, English

Publications

Published

Miku Uenaka, **Hidekazu Nagamura**, Shizuko Hiryu, Kohta I. Kobayasi, Yuta Tamai, "Feasibility evaluation of transtympanic laser stimulation of the cochlea from the outer ear," Journal of the Acoustical Society of America, vol. 152, pp. 1850-1855, 2022

Proceedings

Hidekazu Nagamura, Hiroshi Ohnishi, Momoko Hishitani, Shota Murai, Yuma Osako, Kohta Kobayasi I, "Reward enhancement and inhibition in auditory decision-making," Proceedings of the AROB-ISBC-SWARM 2022, pp. 1164-1168, January 2022.

Preprints

Hidekazu Nagamura, Hiroshi Onishi, Momoko Hishitani, Shota Murai, Yuma Osako, Kohta I. Kobayasi, "Reward priming differentially modulates enhancement and inhibition in auditory decision-making," bioRxiv. (DOI: 10.1101/2021.12.23.473984)

Fellowships & Grants

Repayment Exemption for Students with Excellent Grades

Japan Student Services Organization (JASSO) Type I (interest-free) scholarship *2022*

Doshisha University Doctoral-Program Young Researcher Scholarship

Doshisha University *2022 - present*

Support Program for Pioneering Research Initiated by the Next Generation Researchers in Doshisha University Doctoral Course

Doshisha University *2022 - present*

Expenses for the promotion of pioneering and interdisciplinary research (competitive funds)

Doshisha University *2022*

Presentations (International Conference)

Hidekazu Nagamura, Seita Tomioka, Kohta I. Kobayasi, "Unraveling the Paradox of Self-Voice Emotion: A Comparative Analysis", ARO 48th Annual MidWinter Meeting, Feb. 2025 (Poster, accepted)

Hidekazu Nagamura, Hirhoshi Ohnishi, Kohta I. Kobayasi, and Shoko Yuki, "When prospective metacognition works better: Bet tells more than confidence rating", The 27th annual meeting of the Association for the Scientific Study of Consciousness (ASSC27), Jul. 2024 (Oral)

Hidekazu Nagamura, Seita Tomioka, Taichirou Tanaka, and Kohta I. Kobayasi, "The origin of the uncomfortable feeling in one's own recorded voice", Interdisciplinary College 2024 (IK2024), Mar. 2024 (Poster)

Hidekazu Nagamura, Seita Tomioka, Taichirou Tanaka, and Kohta I. Kobayasi, "Why Your Voice Sounds Strange: Contribution of Acoustic Factors and Word Familiarity", XXVII International Bioacoustics Congress (IBAC), Oct. 2023 (Poster)

Shota A. Murai, **Hidekazu Nagamura**, Kohta I. Kobayasi, Hiroshi Riquimaroux, "Speech motor representation in improving the perception of spectrally degraded speech", Neuroscience 2022, Nov. 2022 (Oral)

Hidekazu Nagamura, Hiroshi Onishi, Momoko Hishitani, Shota Murai, Yuma Osako, Kohta I. Kobayasi, "Reward enhancement and inhibition in auditory decision-making", AROB-ISBC-SWARM 2022, Jan. 2022 (Oral, Online)

Hidekazu Nagamura, Erika Sakaue, Hiroshi Onishi, Momoko Hishitani, Shota Murai, Yuma Osako, Kohta I. Kobayasi, “Past reward biases decision process in auditory detection task”, Society for Neuroscience (SfN) Global Connectome: A Virtual Event, Jan. 2021 (Poster, Online)

Hiroshi Onishi, Rong Guan, **Hidekazu Nagamura**, Momoko Hishitani, Shota Murai, Kohta I. Kobayasi, “The emotional words temporally capture the spatial attention”, SfN Global Connectome: A Virtual Event, Jan. 2021 (Poster, Online)

Momoko Hishitani, Yuma Osako, Shota Murai, **Hidekazu Nagamura**, Hiroshi Onishi, Kohta I. Kobayasi, “Left inferior parietal cortex represents subjective stimulus visibility”, SfN Global Connectome: A Virtual Event, Jan. 2021 (Poster, Online)

Professional Development

Training Experience

Spring School — *Günne, Germany*
Interdisciplinary College — *Mar. 2024*

Autumn School for Computational Neuroscience — *Chiba, Japan*
Japanese Neural Network Society — *Nov. 2023*

Summer School — *Kanagawa, Japan*
Japanese Cognitive Science Society — *Aug. 2023*

Brain Science Training Program — *Online*
RIKEN Center for Brain Science — *Sep. 2022 - Jul. 2023*

fMRI Training Workshop Camp — *Online*
National Institute of Physiological Sciences — *Aug. 2022*

References

Prof. Dr. Kohta I. Kobayasi
University: Doshisha University
Institute: Department of Biomedical Information
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Prof. Dr. Shizuko Hiryu
University: Doshisha University
Institute: Department of Biomedical Information
Email: shiryu@mail.doshisha.ac.jp

Assis. Prof. Dr. Shoko Yuki
University: The University of Tokyo
Institute: Graduate School of Arts and Sciences
Email: syuki@g.ecc.u-tokyo.ac.jp