

Shinri Ohta

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PROFESSIONAL POSITIONS

Oct. 2016–Present. Assistant Professor (tenured), Department of Linguistics, Faculty of Humanities, Kyushu University.

Apr. 2022–Present. Project Collaborator, National Institute for Japanese Language and Linguistics.

Oct. 2017–Present. Affiliate Assistant Professor, Education and Research Center for Mathematical and Data Science, Kyushu University.

Feb. 2017–Present. Visiting Scholar, Department of Linguistics, Graduate School of Arts and Sciences, New York University.

Oct. 2016–Present. Part-time Assistant Professor, Department of Neurophysiology, Graduate School of Medicine, Juntendo University.

Feb. 2017–Mar. 2018. JSPS Overseas Research Fellow, Department of Linguistics, Graduate School of Arts and Sciences, New York University; Supervisor: Professor Alec Marantz.

Apr. 2016–Sept. 2016. Assistant Professor, Department of Neurophysiology, Graduate School of Medicine, Juntendo University; PI: Professor Seiki Konishi.

Apr. 2014–Mar. 2016. CREST Postdoctoral Fellow, Department of Basic Science, Graduate School of Arts and Sciences, The University of Tokyo; PI: Professor Kuniyoshi L. Sakai.

Apr. 2012–Mar. 2014. JSPS Research Fellow, Department of Life Sciences, Graduate School of Arts and Sciences, The University of Tokyo; Supervisor: Professor Kuniyoshi L. Sakai.

EDUCATION

Mar. 2014. PhD in Cognitive and Behavioral Sciences, The University of Tokyo, Tokyo, Japan.

Dissertation: “Computational principles of syntax in the language areas: Verification of the syntactic operations using fMRI”

Committee: Kuniyoshi L. Sakai, Yoshihiko Tanno, Kazuo Okanoya, Shoichi Ishiura, Suguru Kawato.

Mar. 2011. MS in Multidisciplinary Sciences, The University of Tokyo, Tokyo, Japan.

Mar. 2009. Bachelor of Liberal Arts, The University of Tokyo, Tokyo, Japan.

CITATION STATISTICS

Number of citations: 237 (Google Scholar Citations, 9/9/2022)

h-index: 7 (Google Scholar Citations, 9/9/2022)

ORCID ID: <https://orcid.org/0000-0003-3240-0028>

JSPS Researcher ID: 20750045

Scopus Author ID: 55605152800

Web of Science ResearcherID: D-9919-2019

RESEARCH INTERESTS

- The neural bases of morphosyntactic processing.
- Integration of theoretical linguistics and cognitive neuroscience based on neuroimaging experiments and computational models.
- Functional/anatomical reorganization related to language disorder and language acquisition/learning.

RESEARCH EXPERIENCE

Oct. 2016–Present. Assistant Professor (tenured), Department of Linguistics, Faculty of Humanities, Kyushu University.

1. Studying the neural bases of morphosyntactic processing by integrating neuroimaging, computational modeling, and linguistic theory (with Dr. Yohei Oseki and Dr. Hiroki Narita, Tanaka et al., 2019, *Front. Psychol.*).
2. Developing computational methods to extract linguistic information from EEG signals (with Dr. Hiroki Masuda and Dr. Hideaki Hayashi).
3. Studying morphological processing of Japanese adjectives using EEG (with Mr. Jun Nakajima, Nakajima & Ohta, to appear).
4. Studying neural plasticity related to second language learning using EEG and HD-tDCS (with Mr. Daniel C. Gallagher).
5. Studying neural bases of empty categories (gaps) using EEG (with Mr. Koki Yamaguchi).

Feb. 2017–Mar. 2018. JSPS Overseas Research Fellow, Department of Linguistics, Graduate School of Arts and Sciences, New York University; Supervisor: Professor Alec Marantz.

1. Studied morphological processing of Japanese verbs in the left fusiform gyrus using MEG (Presented at *SNL2019*, *AMLaP2019*, etc.).

Apr. 2016–Sept. 2016. Assistant Professor, Department of Neurophysiology, Graduate School of Medicine, Juntendo University; PI: Professor Seiki Konishi.

1. Studied the neural basis of response inhibition using resting-state and task fMRI (Osada et al., 2019, *J. Neurosci.*).
2. Studied neural plasticity of the motor cortex using quadripulse transcranial magnetic stimulation (QPS).

Apr. 2014–Mar. 2016. CREST Postdoctoral Fellow, Department of Basic Science, Graduate School of Arts and Sciences, The University of Tokyo; PI: Professor Kuniyoshi L. Sakai; Collaborator: Dr. Masatoshi Koizumi.

1. Targeted Kaqchikel language that allows various word orders and Japanese and identified that the left inferior frontal activation was selectively increased by scrambling in a sentence in both languages by using fMRI (Ohta et al., 2017, *Front. Psychol*; Tanaka et al., 2017, *Proc. Jpn. Acad., Ser. B*).
2. Identified phonological/semantic factors that predict sequential voicing in Japanese compound words using logistic regression analyses (Ohta, 2015, *Oninkenkyu*; Ohta & Ohta, 2016, *NINJAL Research Papers*).

Apr. 2012–Mar. 2014. JSPS Research Fellow, Department of Life Sciences, Graduate School of Arts and Sciences, The University of Tokyo; Supervisor: Professor Kuniyoshi L. Sakai; Collaborators: Professor Naoki Fukui and Dr. Ryuta Kinno.

1. Identified functional/anatomical networks for processing hierarchical syntactic structures, using fMRI, dynamic causal modeling, and diffusion tensor imaging (Ohta et al., 2013, *PLOS ONE*; Ohta et al., 2013, *Front. Behav. Neurosci.*).
2. Studied functional/anatomical changes of language-related networks in glioma patients and identified three language-related networks using partial correlation analyses and diffusion tensor imaging (Kinno et al., 2014, *Brain*; Kinno et al., 2015, *SpringerPlus.*).

Apr. 2009–Mar. 2012. Graduate Research, Department of Life Sciences, Graduate School of Arts and Sciences, The University of Tokyo; Supervisor: Professor Kuniyoshi L. Sakai; Collaborator: Professor Naoki Fukui.

Studied functional networks for syntactic processing using fMRI.

Sept. 2007–Mar. 2009. Undergraduate Research, Department of Cognitive Behavioral Science, School of Arts and Sciences, The University of Tokyo; Supervisors: Associate Professor Kuniyoshi L. Sakai and Professor Kazuo Shigemasu.

Examine the role of the left caudate head on processing of nested structures using fMRI.

AWARDS and FELLOWSHIPS

July 2022. Received Wakate Dojo Best Presentation Award in NEURO2022 (with Mr. Daniel C. Gallagher and Mr. Kyosuke Matsumoto).

Aug. 2020–Sept. 2022. Selected as a trainee for Diversity and Super Global Training Program for Female and Young Faculty (SENTAN-Q).

Feb. 2017–Mar. 2018. Received JSPS Overseas Research Fellowship, Japan Society for the Promotion of Science. (JPY 5,438,400 for one year, Approx. USD 50,000).

Elucidation of a neural basis of processing morphosyntactic structure of verbs: An English-Japanese contrastive study using MEG.

Apr. 2016–Mar. 2019 Received JSPS Research Fellowship for Young Scientists (PD) (Withdrawn), Japan Society for the Promotion of Science. (JPY 13,032,000 for three years, Approx. USD 120,000).

Elucidation of a neural basis of phonological learning of English: A study using neurofeedback.

Dec. 2013. Received 3rd ICPP Travel Award.

Apr. 2012–Mar. 2014. Received JSPS Research Fellowship for Young Scientists (DC), Japan Society for the Promotion of Science (JPY 4,800,000 for two years, Approx. USD 45,000).

Elucidation of functional/anatomical networks among regions processing sentence structures using MEG and tractography.

July 2011–Dec. 2011. Received Scholarship for Doctoral Students, The University of Tokyo. (JPY 300,000 for one year, Approx. USD 2,800).

Elucidation of neural networks related to processing of syntactic structures using MEG and DTI

Mar. 2010. Received JAIST -EELC 2010 Travel Award.

RESEARCH GRANTS

Apr. 2022–Mar. 2028. PI, Received a Research Grant from Education and Research Center for Mathematical and Data Science, Kyushu University. (JPY 48,000,000 for six years, Approx. USD 437,000).

Oct. 2021–Mar. 2024. Co-Investigator of a Grant-in-Aid for Scientific Research (S), 19H05589, The Ministry of Education, Culture, Sports, Science and Technology. (JPY 1,625,000 for three years, Approx. USD 14,800).

Field-based cognitive neuroscientific study of word order in language and order of thinking from the OS language perspective.

Apr. 2021–Mar. 2023. PI, Received a Grant-in-Aid for Challenging Research (Exploratory), 21K18560, Japan Society for the Promotion of Science. (JPY 6,370,000 for three years, Approx. USD 60,700).

How do changes in brain activation facilitate language learning? A study using EEG neurofeedback.

Nov. 2020–Mar. 2021. Co-Investigator of a Grant-in-Aid for Aggressive Research by Young Researchers (Q-dai jump Research Program: Wakaba Challenge), Kyushu University. (JPY 900,000 for one year, Approx. USD 8,700).

Elucidation of neural activity during anticipation of words

Aug. 2020–July 2022. Trainee, Received a Grant-in-Aid for Diversity and Super Global Training Program for Female and Young Faculty (SENTAN-Q), Kyushu University. (JPY 4,672,000 for two years, Approx. USD 44,900).

Apr. 2019–Mar. 2023. PI (with Hideaki Hayashi and Hiroki Masuda), Received a Grant-in-Aid for Interdisciplinary Research by Young Researchers (Q-dai jump Research Program: Tsubasa Project), Kyushu University. (JPY 4,050,000 for four years, Approx. USD 36,800).

Verification of the language processing in the brain through integration of linguistics, information science, and mathematics.

Apr. 2019–Mar. 2023. PI (with Hiroki Narita and Yohei Oseki), Received a Grant-in-Aid for Scientific Research (B), 19H01256, Japan Society for the Promotion of Science. (JPY 17,420,000 for four years, Approx. USD 167,500).

Elucidation of the neural basis of language through integration of theory, models, and experiments.

Sept. 2018. Co-PI, Received a Grant-in-Aid for Research Environment Improvements for Young Researchers (Kyushu University Renaissance Project), Kyushu University. (JPY 9,303,000, Approx. USD 89,400).

Preparation of common research laboratory for data science on humanities.

Apr. 2018–Mar. 2023. Co-Investigator of a Grant-in-Aid for Scientific Research on Innovative Areas, 17H06379, The Ministry of Education, Culture, Sports, Science and Technology. (JPY 14,755,000 for five years, Approx. USD 134,100).

Theoretical frameworks for studying the origins and evolution of human language.

Oct. 2017–Mar. 2022. PI, Received a Research Grant from Education and Research Center for Mathematical and Data Science, Kyushu University. (JPY 40,000,000 for five years, Approx. USD 385,000).

Apr. 2015–Mar. 2017. PI, Received Grant-in-Aid for Young Scientists (B), 15K16733, Japan Society for the Promotion of Science. (JPY 1,560,000 for two years, Approx. USD 15,000).

Elucidation of neural bases of universality and variability of language through a comparative study of Japanese and Kaqchikel.

Apr. 2012–Mar. 2014. PI, Received Grant-in-Aid for JSPS Research Fellow, 12J08931, Japan Society for the Promotion of Science. (JPY 2,000,000 for two years, Approx. USD 19,200).

Elucidation of functional/anatomical networks among regions processing sentence structures using MEG and tractography.

TECHNICAL SKILLS

- fMRI analyses (software: SPM, FSL, FreeSurfer, and MRICron).
 - Including general linear model, dynamic causal modeling, and multi-voxel pattern analysis.
- Structural MRI analyses (software: SPM, FSL, FreeSurfer, and Caret).
 - Diffusion tensor imaging, voxel-based morphometry, T1w/T2w MRI based myelin mapping.
- EEG/MEG and TMS analyses (software: SPM, Fieldtrip, MNE-Python, and eelbrain).
- Multivariate statistical analyses (software: MATLAB, R, and Python).
 - Including structural equation modeling, generalized linear model, support vector machine.
- Working knowledge for NBS Presentation and PsychoPy software.

PUBLICATIONS

Book chapters

1. Nakajima, J. & **Ohta, S.**, Decompositional similarities between semantically transparent and lexicalized nominal suffixations in Japanese: An ERP Study, In Koizumi, M. (Ed.), *Issues in Japanese Psycholinguistics: From Comparative Perspectives* (The Mouton-NINJAL Library of Linguistics Series), Berlin/Boston, De Gruyter Mouton, To appear.
2. Tanaka, K., Nakamura, I., **Ohta, S.**, Fukui, N., Zushi, M., Narita, H., & Sakai, K. L., Merge-generability as the key concept of human language: Evidence from neuroscience, In Benítez-Burraco, A., Fujita, K., Hoshi, K., & Progovac, L. (Eds.), *The Biology of Language Under a Minimalist Lens: Promises, Achievements, and Limits* (pp. 72–87), Lausanne, Frontiers Media, 2021 (A reprint of Tanaka et al., 2019, *Front. Psychol.*). doi: 10.3389/978-2-88966-651-5
3. **Ohta, S.**, Koizumi, M., & Sakai, K. L., Dissociating effects of scrambling and topicalization within the left frontal and temporal language areas: An fMRI study in Kaqchikel Maya, In Gallego, Á. J. & Irurtzun, A. (Eds.), *Approaches to Language: Data, Theory, and Explanation* (pp. 28–41), Lausanne, Frontiers Media, 2020 (A reprint of Ohta et al., 2017, *Front. Psychol.*). doi: 10.3389/978-2-88963-668-6
4. **Ohta, S.**, Fukui, N., & Sakai, K. L., Syntactic computation in the human brain: The Degree of Merger as a key factor, In Fukui, N., *Merge in the Mind-Brain: Essays on Theoretical Linguistics and the Neuroscience of Language* (pp. 181–236), Oxon, Routledge, 2017 (A reprint of Ohta et al., 2013, *PLOS ONE*).

5. **Ohta, S.**, Fukui, N., & Sakai, K. L., Computational principles of syntax in the regions specialized for language: Integrating theoretical linguistics and functional neuroimaging, In Fukui, N., *Merge in the Mind-Brain: Essays on Theoretical Linguistics and the Neuroscience of Language* (pp. 237–264), Oxon, Routledge, 2017 (A reprint of Ohta et al., 2013, *Front. Behav. Neurosci*).
6. **Ohta, S.**, Verification of phonological theories using neuroscience experiments and multivariate analyses (in Japanese), In The Phonological Society of Japan (Ed.), *Trends in Contemporary Phonology*, Tokyo (pp. 114–117), Kaitakusha, 2016.
7. **Ohta, S.**, Fukui, N., & Sakai, K. L., Computational principles of syntax in the regions specialized for language: Integrating theoretical linguistics and functional neuroimaging, In Sakai, K. L. & Perlovsky, L. (Eds.), *Language and Cognition* (pp. 18–30), Lausanne, Frontiers Media, 2015 (A reprint of Ohta et al., 2013, *Front. Behav. Neurosci*). doi: 10.3389/978-2-88919-627-2

Journal articles

1. Tanaka, K., Nakamura, I., **Ohta, S.**, Fukui, N., Zushi, M., Narita, H., & Sakai, K. L., Merge-generability as the key concept of human language: Evidence from neuroscience, *Front. Psychol.*, Frontiers, **10**, 2673, 1–16, 2019. doi: 10.3389/fpsyg.2019.02673
2. Osada, T., **Ohta, S.**, Ogawa, A., Tanaka, M., Suda, A., Kamagata, K., Hori, M., Aoki, S., Shimo, Y., Hattori, N., Shimizu, T., Enomoto, H., Hanajima, R., Ugawa, Y., & Konishi, S., An essential role of the intraparietal sulcus in response inhibition predicted by parcellation-based network, *J. Neurosci.*, Society for Neuroscience, **39**(13), 2509–2521, 2019. doi: 10.1523/JNEUROSCI.2244-18.2019
3. Tanaka, K., **Ohta, S.**, Kinno, R., & Sakai, K. L., Activation changes of the left inferior frontal gyrus for the factors of construction and scrambling in a sentence, *Proc. Jpn. Acad., Ser. B*, the Japan Academy, **93**(7), 511–522, 2017. doi: 10.2183/pjab.93.031
4. **Ohta, S.**, Koizumi, M., & Sakai, K. L., Dissociating effects of scrambling and topicalization within the left frontal and temporal language areas: An fMRI study in Kaqchikel Maya, *Front. Psychol.*, Frontiers, **8**, 748, 1–14, 2017. doi: 10.3389/fpsyg.2017.00748
5. Ohta, S. & **Ohta, S.**, Classification of Japanese compounds based on the frequency of *rendaku*: A study using the Rendaku Database (in Japanese), *NINJAL Research Papers*, The National Institute for Japanese Language and Linguistics, **10**, 179–191, 2016. doi: 10.15084/00000814
6. Kinno, R., **Ohta, S.**, Muragaki, Y., Maruyama, T., & Sakai, K. L., Left frontal glioma induces functional connectivity changes in syntax-related networks, *SpringerPlus*, Springer, **4**, 317, 1–6, 2015. doi: 10.1186/s40064-015-1104-6

7. **Ohta, S.**, Effects of phonological and semantic factors on rendaku: A study using the rendaku database and logistic regression analyses (in Japanese), *Oninkenkyu (Phonological Studies)*, The Phonological Society of Japan, **18**, 85–92, 2015.
8. Kinno, R., **Ohta, S.**, Muragaki, Y., Maruyama, T., & Sakai, K. L., Differential reorganization of three syntax-related networks induced by a left frontal glioma, *Brain*, Oxford University Press, **137**, 1193–1212, 2014. doi: 10.1093/brain/awu013
9. **Ohta, S.**, Fukui, N., & Sakai, K. L., Syntactic computation in the human brain: The Degree of Merger as a key factor, *PLOS ONE*, Public Library of Science, **8**, e56230, 1–16, 2013. (**Top 25% most cited articles**, 8/18/2017) doi: 10.1371/journal.pone.0056230

Submitted

Review articles

1. **Ohta, S.**, Book Review: Why Only Us: Language and Evolution, By Berwick, Robert C. and Noam Chomsky, MIT Press, Cambridge, MA, 2016, vii+224pp, *Eng. Ling.*, The English Linguistic Society of Japan, **37**(1), 101–111, 2020.
2. **Ohta, S.**, Fukui, N., & Sakai, K. L., Computational principles of syntax in the regions specialized for language: Integrating theoretical linguistics and functional neuroimaging, *Front. Behav. Neurosci.*, Frontiers, **7**, 204, 1–13, 2013. doi: 10.3389/fnbeh.2013.00204

Proceedings/Abstracts

1. **Ohta, S.**, Tanaka, S., & Yamada, E., Investigating the neural basis of Rendaku using the mismatch negativity: Is violation of Lyman's law different from phonological deviance?, *LSJ Meeting Handbook of the 164th Meeting*, LSJ, 253–257, 2022.
2. **Ohta, S.**, Examination of the facilitation of syntactic processing by transcranial direct current stimulation over the left inferior frontal cortex, *LSJ Meeting Handbook of the 162th Meeting*, LSJ, 296–300, 2021.
3. Yamada, E. & **Ohta, S.**, Neural oscillations during anticipation of words, *Proceedings of Tsutomu Sakamoto Memorial Neuroscience Conference*, **6**, 69–70, 2021.
4. Gallagher, D. C., Yano, M., & **Ohta, S.**, Modality effects in morphosyntactic and orthographic/phonological violation processing: Preliminary ERP results of native Spanish speakers, *Proceedings of Tsutomu Sakamoto Memorial Neuroscience Conference*, **6**, 29–33, 2021.
5. Yamaguchi, K. & **Ohta, S.**, An ERP study on the processing of empty categories, *Proceedings of Tsutomu Sakamoto Memorial Neuroscience Conference*, **6**, 10–11, 2021.

6. **Ohta, S.**, Oseki, Y., & Marantz, A., Morpheme processing in the ventral temporal lobe: An MEG study of Japanese verbs, *Stem-, Spraak- en Taalpathologie*, **24** Supple, 218–220, 2019.
7. **Ohta, S.**, Oseki, Y., & Marantz, A., Dissociating the effects of morphemes and letters in visual word recognition: An MEG study of Japanese verbs, *Abstract of AMLaP2019*, 17–18, 2019.
8. **Ohta, S.**, Oseki, Y., & Marantz, A., Disentangling morphological processing and letter recognition: An MEG study of Japanese verbs, *Abstract of SNL2019*, 237, 2019.
9. **Ohta, S.**, Oseki, Y., & Marantz, A., Morphological decomposition selectively modulates activation in the left fusiform/inferior temporal gyri: An MEG study of Japanese verbs, *LSJ Meeting Handbook of the 158th Meeting*, LSJ, 330–334, 2019.
10. **Ohta, S.**, Oseki, Y., & Marantz, A., Morphological, but not orthographic, decomposition of morphologically complex verbs in Japanese: An MEG study, *Abstract of PIPP2019*, 10–11, 2019.
11. **Ohta, S.**, Oseki, Y., & Marantz, A., Neural basis of Japanese verb processing: An MEG study, *Proceedings of 4th Tsutomu Sakamoto Memorial Neuroscience Conference*, **4**, 23, 2019.
12. Gallagher, D. C., Yano, M., & **Ohta, S.**, Syntactic and orthographic/phonological violation processing across modalities in native Spanish speakers: An ERP study, *Proceedings of 4th Tsutomu Sakamoto Memorial Neuroscience Conference*, **4**, 37–38, 2019.
13. Nakajima, J., Yano, M., & **Ohta, S.**, Acceptability judgment experiment of derivation of Japanese adjectives, *Proceedings of 4th Tsutomu Sakamoto Memorial Neuroscience Conference*, **4**, 39, 2019.
14. **Ohta, S.**, fMRI and the neural basis of syntactic processing (In Japanese), Workshop Theoretical linguistics and cognitive neuroscience: How are linguistic theories verified with neuroscience experiments?, *LSJ Meeting Handbook of the 152th Meeting*, LSJ, 358–361, 2016.
15. **Ohta, S.**, Koizumi, M., & Sakai, K. L., Dissociating scrambling from topicalization for activations in the grammar centers: An fMRI study in Kaqchikel Maya, *Abstract of SNL2015*, 171, 2015.
16. **Ohta, S.**, Koizumi, M., & Sakai, K. L., The left frontal activation selectively modulated by syntactic processing: An fMRI study with a special VOS language, *Proceedings of VMT2014*, 105, 2014.
17. **Ohta, S.**, Koizumi, M., & Sakai, K. L., Activation modulation in the left inferior frontal gyrus caused by scrambled word orders: An fMRI study in Kaqchikel Maya, *Abstract of SNL2014*, 188, 2014.

18. Muragaki, Y., Kinno, R., **Ohta, S.**, Maruyama, T., Tamura, M., Saito, T., Nitta, M., & Sakai, K. L., Identification of syntax-related neural networks by functional analyses of left frontal glioma and reorganization of every region, *Proceedings of JSNO2014*, JSNO, 94, 2014.
19. **Ohta, S.** & Ohta, S., Effects of first-element phonological features on rendaku: A study using the Rendaku Database (In Japanese), *Proceedings of 6th Workshop on Corpus Linguistics of Japanese Language*, National Institute for Japanese Language and Linguistics, 233–238, 2014.
20. Kinno, R., Muragaki, Y., Maruyama, T., **Ohta, S.**, & Sakai, K. L., Elucidation of the neural basis of syntactic processing disorders: Visualization of language networks using functional neuroimaging, *Proceedings of 54th Annual Meeting of the Japanese Society of Neurology*, the Japanese Society of Neurology, 477, 2013.
21. **Ohta, S.**, Fukui, N., & Sakai, K. L., Elucidation of the recursive computation in the language areas: Embedding depth as a computational principle, *Neurosci. Res.*, Elsevier, **71** Supple. 1, e284, 2011. doi: 10.1016/j.neures.2011.07.1239
22. **Ohta, S.**, Fukui, N., & Sakai, K. L., The activation in the language areas selective for recursive computations of syntactic structures (In Japanese), *LSJ Meeting Handbook of the 142th Meeting*, LSJ, 64–67, 2011.
23. **Ohta, S.**, Fukui, N., & Sakai, K. L., The selective modulation of the frontal activations by embedding depths in sentences: An fMRI study, *Neurosci. Res.*, Elsevier, **68** Supple. 1, e406, 2010. doi: 10.1016/j.neures.2010.07.1800
24. **Ohta, S.**, Fukui, N., & Sakai, K. L., The role of the left caudate head on processing of nested structures: An fMRI study (In Japanese), *LSJ Meeting Handbook of the 138th Meeting*, LSJ, 282–285, 2009.

Others

1. **Ohta, S.**, The struggle of raising a child in the U.S. (in Japanese), *SANKAKU*, **22**, 2022.
2. **Ohta, S.**, I want to provide educational experiences for my students (in Japanese), *Voices from TAs and Faculties*, 2021. <https://ta-support.kyushu-u.ac.jp/voice>
3. **Ohta, S.**, Computational principles of syntax in the language areas: Verification of the syntactic operations using fMRI (in Japanese), *Oninkenkyu (Phonological Studies)*, The Phonological Society of Japan, **22**, 147–148, 2019.
4. **Ohta, S.**, Proofreading and Revision of a Japanese Translation with Dr. Takaomi Kato, Translated by Watarai, K., *Chomusukii Gengogaku Kougi: Gengo-wa Ikanishite Shinkashitaka*, Chikumashobo, 2017 (Berwick, R. C. & Chomsky, N., *Why Only Us: Language and Evolution*, Cambridge: MA, The MIT Press, 2015).

5. **Ohta, S.**, SNL2015 The 7th annual meeting of the Society for the Neurobiology of Language (in Japanese), *BRAIN and Nerve*, Igaku-Shoin, **68**(2), 194–195, 2016. doi: 10.11477/mf.1416200373

In preparation

1. **Ohta, S.** & Iwashita, C., The effects of phonological features of word-internal consonants on sound symbolism in onomatopoeiae: A study using semantic differential and factor analysis.
2. **Ohta, S.** & Yamada, E., Replicability of the syntax-related networks in fMRI studies using different language tasks: A meta-analysis of task-based fMRI studies.
3. **Ohta, S.**, Selective facilitation of syntactic processing by anodal transcranial direct current stimulation over the left inferior frontal cortex.
4. **Ohta, S.** & Fukui, N., Hierarchy and linear order in linguistic computations.
5. **Ohta, S.** & Sakai, K. L., Generative grammar/Universal grammar, In The Japan Neuroscience Society (Ed.), *Brain Science Dictionary*.
6. **Ohta, S.** & Sakai, K. L., Syntactic operation/Syntactic processing, In The Japan Neuroscience Society (Ed.), *Brain Science Dictionary*.

PRESENTATIONS

Invited talks

1. **Ohta, S.**, Selective facilitation of syntactic processing by transcranial electrical stimulation over the left inferior frontal cortex, *Seminar at Max Planck Institute for Human Cognitive and Brain Sciences*, Leipzig, Germany, Sept. 2022.
2. **Ohta, S.**, Investigating the neural basis of Merge, *Seminar at University of Southern California*, Los Angeles, CA, USA (Virtual), Aug. 2022.
3. Nakajima, J. & **Ohta, S.**, Visual recognition of complex words: An ERP experiment in Japanese, *Seminar at Dongguk University*, Seoul, Korea (Virtual), Aug. 2022.
4. Gallagher, D. C. & **Ohta, S.**, Non-invasive brain stimulation & second language acquisition, *Seminar at Dongguk University*, Seoul, Korea (Virtual), Aug. 2022.
5. Yamada, E. & **Ohta, S.**, The modulation of alpha and beta oscillation in semantic prediction, *Seminar at Dongguk University*, Seoul, Korea (Virtual), Aug. 2022.
6. **Ohta, S.**, Introduction to neurolinguistics II: Aphasia and other language impairments, *Seminar at Dongguk University*, Seoul, Korea (Virtual), Aug. 2022.
7. **Ohta, S.**, Introduction to neurolinguistics I: Experimental methods in neurolinguistics, *Seminar at Dongguk University*, Seoul, Korea (Virtual), July 2022.

8. **Ohta, S.**, Functional and anatomical reorganization of language-related networks caused by a left frontal glioma, *Seminar at the University of Georgia*, Athens, GA, USA (Virtual), July 2022.
9. **Ohta, S.**, What is the missing link between linguistics and neuroscience? In Special Symposium: Neuroscience of language opening the way to the future of linguistics, *164th LSJ Meeting*, Japan (Virtual conference), June 2022.
10. **Ohta, S.**, Sakai, K. L., Umejima, K., Nakamura, I., Special Symposium: Neuroscience of language opening the way to the future of linguistics, *164th LSJ Meeting*, Japan (Virtual conference), June 2022.
11. **Ohta, S.**, Modulating neural activation in the language areas: A transcranial electrical stimulation study, *SNU Linguistic Colloquium*, Seoul, Korea (Virtual), Apr. 2022.
12. **Ohta, S.**, The past and future of neural activity data analysis from the neuroscientist's point of view, *The Statistical Data Science Research Meeting 2021*, Japan (Virtual conference), Dec. 2021.
13. Nakajima, J. & **Ohta, S.**, Decompositional similarities between semantically transparent and lexicalized suffixation in Japanese: An ERP study, *International Symposium on Issues in Japanese Psycholinguistics from Comparative Perspectives (IJPCP2021)*, Japan (Virtual conference), Sept. 2021.
14. **Ohta, S.**, Know Thyself: Why we should study language and the brain, In Brain Science and Reasoning, *The Networking Platform for Co-creating Research (ENCORE) Interdisciplinary Networking Workshop*, Fukuoka, Japan, Aug. 2020.
15. **Ohta, S.**, Practice of education of mathematical and data science to the students in the humanities: An example from experimental linguistics, *TOGAKU Theoretical Linguistic Colloquium*, Tokyo, Japan, June 2019.
16. **Ohta, S.**, Invited symposium: Contribution of brain science to language science: Functional neuroimaging as a tool for testing/generating linguistic hypotheses, *The Japanese Society for Language Sciences 21st Annual International Conference (JSLS2019)*, Sendai, Japan, July 2019.
17. **Ohta, S.**, The neural basis of morphosyntactic processing in Japanese: An MEG study, *TOGAKU Theoretical Linguistic Colloquium*, Tokyo, Japan, Nov. 2018.
18. **Ohta, S.**, Brain mechanisms that support language acquisition and language learning, *ATEP Summer Workshop 2018*, Yamaguchi, Japan, Aug. 2018.
19. **Ohta, S.**, Computational principles of syntax in the language areas: Verification of the syntactic operations using fMRI, *PhSJ 2018 Spring Meeting*, Tokyo, Japan, June 2018.
20. **Ohta, S.**, How is the grammar of language understood and produced in the brain?, *Inaugural Lecture at Kyushu University 2018*, Fukuoka, Japan, May 2018.

21. **Ohta, S.**, Neuroscience as linguistics, linguistics as neuroscience, *Japanese Association of Scholars in Science Meeting*, New York, NY, USA, Dec. 2017.
22. **Ohta, S.**, Fukui, N., Zushi, M., Narita, H., & Sakai, K. L., Merge-generability as a crucial concept in syntax: An experimental study, *First International Symposium on the Physics of Language*, Tokyo, Japan, Mar. 2016.
23. Shintani, T., **Ohta, S.**, & Sakai, K. L., Shinomoto, S., Estimating effective connectivity between brain areas with DCM, *Workshop on fluctuating activity in neural networks*, Kyoto, Japan, Mar. 2015.
24. **Ohta, S.**, Koizumi, M., & Sakai, K. L., Effects of word orders in Kaqchikel Maya from the viewpoint of the brain activation, *Language, Thought, and Brain looking from Mayan languages*, Tokyo, Japan, Jan. 2015.
25. **Ohta, S.**, Iizawa, M., Iijima, K., Nakai, T., Narita, H., Zushi, M., Fukui, N., & Sakai, K. L., An on-going research: The experimental design, *CREST Workshop with Noam Chomsky*, Tokyo, Japan, Mar. 2014.
26. Narita, H., Zushi, M., Fukui, N., **Ohta, S.**, Iizawa, M., Iijima, K., Nakai, T., & Sakai, K. L., An on-going research: The linguistic/theoretical background, *CREST Workshop with Noam Chomsky*, Tokyo, Japan, Mar. 2014.
27. **Ohta, S.**, Fukui, N., & Sakai, K. L., Computational principles of syntax in the regions specialized for language, *CREST Workshop with Noam Chomsky*, Tokyo, Japan, Mar. 2014.

Oral presentations

1. Gallagher, D. C., Matsumoto, K., & **Ohta, S.**, Effects of left inferior prefrontal cortex anodal stimulation on second language acquisition, *NEURO2022*, Naha, Japan, July 2022.
2. **Ohta, S.**, Tanaka, S., & Yamada, E., Investigating the neural basis of Rendaku using mismatch negativity: Is violation of Lyman's law different from phonological deviance?, *164th LSJ Meeting*, Japan (Online conference), June 2022.
3. Yamada, E., Yanai, K., Shigeto, H., & **Ohta, S.**, Attention modulates the alpha and beta oscillations during semantic prediction: An MEG study, *The 51st Annual Meeting of the Japanese Society of Clinical Neurophysiology (JSCN2021)*, Sendai, Japan, Dec. 2021.
4. **Ohta, S.** & Oishi, W., Selective disruption of sentence comprehension by transcranial alternating current stimulation over the left inferior frontal cortex, *SNL2021*, Virtual conference, Oct. 2021.
5. Nakajima, J. & **Ohta, S.**, Modulation of the N400 by morphological composition and lexical access: An ERP study of Japanese derived nouns, *SNL2021*, Virtual conference, Oct. 2021.
6. **Ohta, S.** & Oishi, W., Selective modulation of sentence comprehension by tACS over the left inferior frontal cortex, *AMLaP2021*, France (Virtual conference), Sept. 2021.

7. **Ohta, S.**, Examination of the facilitation of syntactic processing by transcranial direct current stimulation over the left inferior frontal cortex, *162nd LSJ Meeting*, Japan (Online conference), June 2021.
8. **Ohta, S.**, Selective modulation of syntactic processing by anodal tDCS over the left inferior frontal region, *CUNY2021*, USA (Virtual conference), Mar. 2021.
9. Yamaguchi, K. & **Ohta, S.**, An experimental investigation of movement analysis of a control construction, *Evolinguistics 2021 Meeting*, Japan (Virtual conference), Feb. 2021.
10. Gallagher, D. C., Yano, M., & **Ohta, S.**, Modality effects in morphosyntactic and orthographic/phonological violation processing: Preliminary ERP results of native Spanish speakers, *6th Tsutomu Sakamoto Memorial Neuroscience Conference*, Japan (Virtual conference), Feb. 2021.
11. Yamaguchi, K. & **Ohta, S.**, An ERP study on the processing of empty categories, *6th Tsutomu Sakamoto Memorial Neuroscience Conference*, Japan (Virtual conference), Feb. 2021.
12. Yamada, E. & **Ohta, S.**, Neural oscillations during anticipation of words, *6th Tsutomu Sakamoto Memorial Neuroscience Conference*, Japan (Virtual conference), Feb. 2021.
13. **Ohta, S.**, On explanatory and operating principles: Examination based on theoretical linguistics, neuroscience experiments, and computational modeling, *Evolinguistics 2020 Meeting*, Japan (Virtual conference), Sept. 2020.
14. **Ohta, S.** & Maeno, K., Transcranial direct current stimulation over the left inferior frontal gyrus modulates syntactic processing, *Neuroscience2020*, Japan (Virtual conference), July-Aug. 2020.
15. **Ohta, S.**, The neural bases of the Merge operation: An fMRI investigation, *Evolinguistics 2019 Team Meeting*, Tokyo, Japan, Dec. 2019.
16. **Ohta, S.**, Oseki, Y., & Marantz, A., Dissociating the effects of morphemes and letters in visual word recognition: An MEG study of Japanese verbs, *AMLaP2019*, Moscow, Russia, Sept. 2019.
17. Osada, T., **Ohta, S.**, Ogawa, A., Tanaka, M., Suda, A., Kamagata, K., Aoki, S., Shimo, Y., Hattori, N., Shimizu, T., Enomoto, H., Hanajima, R., Ugawa, Y., & Konishi, S., Essentiality of the intraparietal sulcus for response inhibition revealed by fMRI and TMS. *3rd Japanese Meeting for Human Brain Imaging*, Tokyo, Japan, Sept. 2019.
18. **Ohta, S.**, Oseki, Y., & Marantz, A., Selective modulation of left inferior temporal activation by morphological decomposition: An MEG study of Japanese verbs, *NEURO2019*, Niigata, Japan, July 2019.

19. **Ohta, S.**, Oseki, Y., & Marantz, A., Morphological decomposition selectively modulates activation in the left fusiform/inferior temporal gyri: An MEG study of Japanese verbs, *158th LSJ Meeting*, Tokyo, Japan, June 2019.
20. **Ohta, S.**, Oseki, Y., & Marantz, A., Morphological, but not orthographic, decomposition of morphologically complex verbs in Japanese: An MEG study, *PIPP2019*, Reykjavik, Iceland, June 2019.
21. **Ohta, S.**, Oseki, Y., & Marantz, A., Morphological decomposition of morphologically complex verbs in Japanese: An MEG study, *NEUROLANG-AD 2019*, Abu Dhabi, UAE, Apr. 2019.
22. **Ohta, S.**, An experimental consideration of Merge and non-Merge computations, *Evolinguistics 2019 Meeting*, Okinawa, Japan, Feb. 2019.
23. **Ohta, S.**, Oseki, Y., & Marantz, A., The neural basis of Japanese verb processing: An MEG study, *4th Tsutomu Sakamoto Memorial Neuroscience Conference*, Kanazawa, Japan, Feb. 2019.
24. Gallagher, D. C., Yano, M., & **Ohta, S.**, Syntactic and Orthographic/Phonological Violation Processing across Modalities in Native Spanish Speakers: An ERP Study, *4th Tsutomu Sakamoto Memorial Neuroscience Conference*, Kanazawa, Japan, Feb. 2019.
25. Nakajima, J., Yano, M., & **Ohta, S.**, An acceptability judgment experiment on derivation of Japanese adjectives, *4th Tsutomu Sakamoto Memorial Neuroscience Conference*, Kanazawa, Japan, Feb. 2019.
26. Tanaka, K., **Ohta, S.**, & Sakai, K. L., Activation changes of the left frontal regions modified by independent factors of construction and scrambling, *Neuroscience2016*, Yokohama, Japan, July 2016.
27. **Ohta, S.**, fMRI and the neural basis of syntactic processing, in Workshop “Theoretical linguistics and cognitive neuroscience of language,” *152nd LSJ Meeting*, Tokyo, Japan, June 2016.
28. **Ohta, S.**, Koizumi, M., & Sakai, K. L., Scrambling elicits larger activation than topicalization in the grammar centers: An fMRI study in Kaqchikel Maya, *Experimental Approaches to Arabic and other understudied Languages (EXAL+)*, Abu Dhabi, UAE, Jan. 2016.
29. **Ohta, S.**, Koizumi, M., & Sakai, K. L., The left inferior frontal gyrus activation selectively increased by the object shift in a sentence: An fMRI study in Kaqchikel Maya, *Neuroscience2015*, Kobe, Japan, July 2015.
30. Kinno, R., Muragaki, Y., Maruyama, T., **Ohta, S.**, & Sakai, K. L., Changes of functional connectivity in neural networks related to syntactic processing observed in glioma patients, *The 17th Congress of Japan Human Brain Mapping Society*, Osaka, Japan, July 2015.

31. Kinno, R., **Ohta, S.**, Muragaki, Y., Maruyama, T., Kasai, H., Uchiyama, M., Kurokawa, S., Sakae, Y., & Sakai, K. L., Functional connectivity change within syntax-related networks in glioma patients, *56th Annual Meeting of the Japanese Society of Neurology*, Niigata, Japan, May 2015.
32. Shintani, T., **Ohta, S.**, & Sakai, K. L., Shinomoto, S., Estimating effective connectivity between brain areas with DCM, *JPS2015*, Tokyo, Japan, Mar. 2015.
33. **Ohta, S.**, Elucidation of the syntactic computation in the language areas based on linguistics and MRI, *Seminar in Research Institute of National Rehabilitation Center for Persons with Disabilities*, Tokyo, Japan, Mar. 2015.
34. **Ohta, S.**, Basics of fMRI and DTI, *Meeting on Second Language Acquisition*, Tokyo, Japan, Feb. 2015.
35. **Ohta, S.**, Basics of DTI and application to the neuroscience of language, *8th Neuroscience Meeting*, Tokyo, Japan, Feb. 2015.
36. Kinno, R., Muragaki, Y., Maruyama, T., **Ohta, S.**, & Sakai, K. L., Abnormal functional connectivity patterns in syntax-related networks caused by a glioma, *Neuroscience2014*, Yokohama, Japan, Sept. 2014.
37. **Ohta, S.**, Koizumi, M., & Sakai, K. L., An fMRI study in Kaqchikel Maya for the effect of scrambled sentences, *Neuroscience2014*, Yokohama, Japan, Sept. 2014.
38. **Ohta, S.**, Fukui, N., & Sakai, K. L., The importance of the top-down connection through the superior longitudinal and arcuate fasciculi for the computation of syntactic structures, *NEURO2013*, Kyoto, Japan, June 2013.
39. **Ohta, S.**, Fukui, N., & Sakai, K. L., The importance of the dorsal pathway for the computation of syntactic structures, *Neuroscience2012*, Nagoya, Japan, Sept. 2012.
40. Kinno, R., Muragaki, Y., Maruyama, T., **Ohta, S.**, & Sakai, K. L., Visualization of language-related networks by activations in patients with left frontal gliomas and by the diffusion-tensor imaging for normal controls, *Neuroscience2012*, Nagoya, Japan, Sept. 2012.
41. Kinno, R., Muragaki, Y., Maruyama, T., **Ohta, S.**, & Sakai, K. L., Differential and global cortical reorganization induced by left frontal glioma: Visualization of three syntax-related networks, *53rd Annual Meeting of the Japanese Society of Neurology*, Tokyo, Japan, May 2012.
42. **Ohta, S.**, Fukui, N., & Sakai, K. L., The activation in the language areas selective for recursive computations of syntactic structures, *142nd LSJ Meeting*, Tokyo, Japan, June 2011.
43. **Ohta, S.**, Fukui, N., & Sakai, K. L., The role of the left caudate head on processing of nested structures: An fMRI study, *138th LSJ Meeting*, Chiba, Japan, June 2009.

Submitted

1. Mukaino, T., Yamaguchi, T., Okadome, T., Yamada, E., **Ohta, S.**, Mitoma, R., Mitsudo, T., Tamura, S., Hirano, Y., Togao, O., Hagihara, K., Isobe, N., & Shigeto, H., Investigation of structural MRI features in incomplete hippocampal inversion, *The 55th Annual Congress of the Japanese Epilepsy Society*, Sendai, Japan, Sept. 2022.
2. Mukaino, T., Yamaguchi, T., Okadome, T., Yamada, E., **Ohta, S.**, Mitoma, R., Mitsudo, T., Tamura, S., Hirano, Y., Togao, O., Hagihara, K., Isobe, N., & Shigeto, H., The imaging characteristics of incomplete hippocampal inversion, *14th Asian & Oceanian Epilepsy Congress*, Online, Nov. 2022.

Poster presentations

1. Nakajima, J. & **Ohta, S.**, Modulation of the N400 by morphological complexity of words: An ERP study of Japanese derived nouns, *NEURO2022*, Naha, Japan, July 2022.
2. **Ohta, S.**, Neuroscience experiments uncover the mysteries of language! Introduction of Ohta Lab at Kyushu University, *LingFest 2022*, Japan (Virtual conference), Jan. 2022.
3. Nakajima, J. & **Ohta, S.**, Effect of morphological complexity of words on event-related potential N400, *LingFest 2022*, Japan (Virtual conference), Jan. 2022.
4. Tanaka, S. & **Ohta, S.**, Investigation of the neural basis of rendaku (sequential voicing) using mismatch negativity: Differences between phonological deviants and violation of Moto-ori Lyman's law in Japanese compound words, *LingFest 2022*, Japan (Virtual conference), Jan. 2022.
5. **Ohta, S.**, Neuroscience of language: Linguistics × neuroscience to explore the mysteries of language, Archlev Tech Expo 2021, Tokyo, Japan, Dec. 2021.
6. **Ohta, S.**, Selective facilitation of sentence comprehension by tACS over the left inferior frontal region, *NEURO2021*, Kobe, Japan, July 2021.
7. Nakajima, J. & **Ohta, S.**, Modulation of the N170 ERP component by morphological decomposition: An ERP study of Japanese derived nouns, *NEURO2021*, Kobe, Japan, July 2021.
8. Yamada, E., Yanai, K., Shigeto, H., & **Ohta, S.**, Attention modulates the alpha and beta oscillations during semantic prediction, *NEURO2021*, Kobe, Japan, July 2021.
9. **Ohta, S.**, Exploring the neural basis of language by combining transcranial electric stimulation and EEG, *3rd online poster session: Expanding, changing, and connecting the research*, Japan (Virtual conference), Apr. 2021
10. **Ohta, S.**, Research on the neural basis of language using functional neuroimaging: Introduction of Ohta lab at Kyushu University, *LingFest 2021*, Japan (Virtual conference), Jan. 2021.

11. Gallagher, D. C., Yano, M., & **Ohta, S.**, Modality effects in processing misspelling and mispronunciations: Preliminary ERP results of native Spanish speakers, *LingFest 2021*, Japan (Virtual conference), Jan. 2021.
12. Nakajima, J. & **Ohta, S.**, An examination on morphological segmentation of derived nouns using ERP N170 as an indicator, *LingFest 2021*, Japan (Virtual conference), Jan. 2021.
13. Yamaguchi, K. & **Ohta, S.**, An EEG study on movement analysis of control, *LingFest 2021*, Japan (Virtual conference), Jan. 2021.
14. Gallagher, D. C., Yano, M., & **Ohta, S.**, Modality-specific language processing of Spanish morphosyntactic and orthographic/phonological violations: An ERP study, *2nd AMLaP Asia*, Hong Kong, Dec. 2020.
15. Nakajima, J. & **Ohta, S.**, Decompositional similarities between semantically transparent and opaque suffixation in Japanese: An ERP study, *2nd AMLaP Asia*, Hong Kong, Dec. 2020.
16. **Ohta, S.** & Maeno, K., Facilitation of syntactic processing by anodal tDCS over the left inferior frontal gyrus, *SNL2020*, USA (Virtual conference), Oct. 2020.
17. Gallagher, D. C., Yano, M., & **Ohta, S.**, The L1 & L2 syntactic P600 across visual & auditory modalities: Preliminary ERP findings, *SNL2020*, USA (Virtual conference), Oct. 2020.
18. **Ohta, S.** & Fukui, N., The neural basis of language: An fMRI investigation of Merge-generability, *Evolinguistics 2020 Meeting*, Japan (Virtual conference), Mar. 2020.
19. Gallagher, D. C., Yano, M., & **Ohta, S.**, Reading vs listening: The syntactic P600 in native Spanish speakers, *Evolinguistics 2020 Meeting*, Japan (Virtual conference), Mar. 2020.
20. **Ohta, S.**, Oseki, Y., & Marantz, A., Morpheme processing in the ventral temporal lobe: An MEG study of Japanese verbs, *SoA XX*, Rome, Italy, Sept. 2019.
21. **Ohta, S.**, Oseki, Y., & Marantz, A., Disentangling morphological processing and letter recognition: An MEG study of Japanese verbs, *SNL2019*, Helsinki, Finland, Aug. 2019.
22. Osada, T., **Ohta, S.**, Ogawa, A., Tanaka, M., Suda, A., Kamagata, K., Hori, M., Aoki, S., Shimo, Y., Hattori, N., Shimizu, T., Enomoto, H., Hanajima, R., Ugawa, Y., & Konishi, S., Causal role of the posterior parietal cortex for response inhibition revealed by fMRI and TMS, *NEURO2019*, Niigata, Japan, July 2019.
23. Osada, T., **Ohta, S.**, Ogawa, A., Tanaka, M., Suda, A., Kamagata, K., Hori, M., Aoki, S., Shimo, Y., Hattori, N., Shimizu, T., Enomoto, H., Hanajima, R., Ugawa, Y., & Konishi, S., Necessity of the posterior parietal cortex in response inhibition revealed by fMRI and TMS, *OHBM2019*, Rome, Italy, June 2019.
24. Nakajima, J., **Ohta, S.** & Fukui, N., The neural basis of Merge and non-Merge computations: A theoretical/experimental consideration, *Tokyo Lectures in Evolving Linguistics 2019*, Tokyo, Japan, Mar. 2019.

25. **Ohta, S.** & Fukui, N., A theoretical/experimental consideration of Merge and non-Merge computations, *Evolinguistics 2019 Meeting*, Okinawa, Japan, Feb. 2019.
26. **Ohta, S.** & Fukui, N., A theoretical/neuroscientific consideration of Merge and non-Merge computations, *Evolinguistics 2018 Meeting*, Shiga, Japan, Aug. 2018.
27. **Ohta, S.** Identification of the neural network that computes syntax of the human language, *Future of Mathematics and AI: Development and Expectations of Computational Science*, Fukuoka, Japan, May 2018.
28. Tanaka, K., **Ohta, S.**, Fukui, N., Zushi, M., Narita, H., & Sakai, K. L., Activation changes selective to Merge, the fundamental computation of natural language, *1st Japanese Meeting for Human Brain Imaging*, Tokyo, Japan, Sept. 2017.
29. **Ohta, S.**, Koizumi, M., & Sakai, K. L., Dissociating scrambling from topicalization for activations in the grammar centers: An fMRI study in Kaqchikel Maya, *SNL2015*, Chicago, IL, USA, Oct. 2015.
30. Kinno, R., **Ohta, S.**, Muragaki, Y., Maruyama, T., Kasai, H., Uchiyama, M., Kurokawa, S., Sakae, Y., & Sakai, K. L., Functional connectivity changes in syntax-related networks among patients with a glioma, *OHBM2015*, Honolulu, HI, USA, June 2015.
31. **Ohta, S.**, Koizumi, M., & Sakai, K. L., The left frontal activation selectively modulated by syntactic processing: An fMRI study with a special VOS language, *VMT2014*, Tokyo, Japan, Dec. 2014.
32. Muragaki, Y., Kinno, R., **Ohta, S.**, Maruyama, T., Tamura, M., Saito, T., Nitta, M., & Sakai, K. L., Identification of syntax-related neural networks by functional analyses of left frontal glioma and reorganization of every region, *JSNO2014*, Chiba, Japan, Nov. 2014.
33. **Ohta, S.** & Ohta, S., Effects of first-element phonological features on rendaku: A study using the Rendaku Database, *6th Workshop on Corpus Linguistics of Japanese Language*, Tokyo, Japan, Sept. 2014.
34. **Ohta, S.**, Koizumi, M., & Sakai, K. L., Activation modulation in the left inferior frontal gyrus caused by scrambled word orders: An fMRI study in Kaqchikel Maya, *SNL2014*, Amsterdam, Netherland, Aug. 2014.
35. **Ohta, S.** & Ohta, S., Rendaku “enthusiasts” and rendaku “indifferents”: Classification of compound nouns based on the frequency of rendaku, *3rd ICPP*, Tokyo, Japan, Dec. 2013.
36. Kinno, R., Muragaki, Y., Maruyama, T., **Ohta, S.**, & Sakai, K. L., Differential agrammatic comprehension due to white matter damage in the dorsal and ventral pathways, *NEURO2013*, Kyoto, Japan, June 2013.
37. Kinno, R., Muragaki, Y., Maruyama, T., **Ohta, S.**, & Sakai, K. L., Elucidation of the neural basis of syntactic processing disorders: Visualization of language networks using functional

- neuroimaging, *54th Annual Meeting of the Japanese Society of Neurology*, Tokyo, Japan, May 2013.
38. Kinno, R., Muragaki, Y., Maruyama, T., **Ohta, S.**, & Sakai, K. L., Elucidation of the neural networks of language using fMRI of tumor patients and DTI of healthy controls, *CREST 2013 Meeting*, Tokyo, Japan, Mar. 2013.
 39. **Ohta, S.**, Fukui, N., & Sakai, K. L., Elucidation of the neural networks controlling syntactic computation of language: Roles of the left inferior frontal and supramarginal gyri, *CREST 2012 Meeting*, Tokyo, Japan, Mar. 2013.
 40. Kinno, R., Muragaki, Y., Maruyama, T., **Ohta, S.**, & Sakai, K. L., The neural networks of language faculty elucidated by the neural activation of patients with left frontal glioma, *CREST 2012 Meeting*, Tokyo, Japan, Feb. 2012.
 41. Sakai, K. L., **Ohta, S.**, & Fukui, N., Recursive Computation in the Human Brain, *ling50 reunion*, Cambridge, MA, USA, Dec. 2011.
 42. **Ohta, S.**, Fukui, N., & Sakai, K. L., Specialization of the human language areas for the recursive computation of syntactic structures, *NLC2011*, Annapolis, MD, USA, Nov. 2011.
 43. **Ohta, S.**, Fukui, N., & Sakai, K. L., Elucidation of the recursive computation in the language areas: Embedding depth as a computational principle, *Neuroscience2011*, Yokohama, Japan, Sept. 2011.
 44. **Ohta, S.**, Fukui, N., & Sakai, K. L., The selective modulation of the frontal activations by embedding depths in sentences: An fMRI study, *NEURO2010*, Kobe, Japan, Sept. 2010.

TEACHING EXPERIENCE

Graduate courses

- Oct. 2022–Feb. 2023. Lecturer/Instructor, Graduate School of Humanities, Kyushu University.
 Experimental linguistics (Seminar): *Biolinguistics* (Textbook: Kemmerer, D., *Cognitive Neuroscience of Language*, 2nd edition, Oxon, Routledge, 2022),
 Experimental linguistics (Lecture): *Frontiers of neuroscience of language*,
 Methods in linguistics (Seminar),
 Tutorial: Master's Thesis writing,
 Seminar: Doctoral Thesis writing.
- Apr. 2022–July 2022. Lecturer/Instructor, Graduate School of Humanities, Kyushu University.
 Methods in linguistics (Seminar),
 Tutorial: Master's Thesis writing,
 Seminar: Doctoral Thesis writing.

- June 2022–July 2022. Lecturer/Instructor, Graduate School of Humanities, Kyushu University.
 Experimental linguistics (Seminar): Reading the fundamental literatures on generative grammar (Textbooks: Chomsky, N., *Syntactic Structures*, The Hague: Mouton de Gruyter, 1957; Chomsky, N. *Aspects of the Theory of Syntax*, Cambridge, MA: The MIT Press, 1965),
 Experimental linguistics (Lecture): Frontiers of neuroscience of language.
- Oct. 2021–Feb. 2022. Lecturer/Instructor, Graduate School of Humanities, Kyushu University.
 Experimental linguistics (Seminar): Bilingualism (Textbook: Hickok, G. & Small, S. L. (Eds.), *Neurobiology of Language*, London, UK, Academic Press, 2016),
 Experimental linguistics (Lecture): Introduction to neuroscience of language,
 Methods in linguistics (Seminar),
 Tutorial: Master's Thesis writing,
 Seminar: Doctoral Thesis writing.
- Apr. 2021–June 2021. Lecturer/Instructor, Graduate School of Humanities, Kyushu University.
 Experimental linguistics (Seminar): Bilingualism (Textbook: Hagoort, P. (Eds.), *Human Language: From Genes and Brains to Behavior*, Cambridge: MA, The MIT Press, 2019),
 Experimental linguistics (Lecture): Introduction to neuroscience of language,
 Methods in linguistics (Seminar),
 Tutorial: Master's Thesis writing,
 Seminar: Doctoral Thesis writing.
- Oct. 2020–Feb. 2021. Lecturer/Instructor, Graduate School of Humanities, Kyushu University.
 Studies on modern culture C (Lecture): Neurolinguistics today,
 Experimental linguistics (Seminar): Bilingualism (Textbook: Berwick, R. C. & Stabler, E. P. (Eds.), *Minimalist Parsing*, Oxford, UK, Oxford University Press, 2019),
 Experimental linguistics (Lecture): Introduction to neuroscience of language,
 Methods in linguistics (Seminar),
 Tutorial: Master's Thesis writing,
 Seminar: Doctoral Thesis writing.
- May 2020–June 2020. Lecturer/Instructor, Graduate School of Humanities, Kyushu University.
 Experimental linguistics (Seminar): Bilingualism (Textbook: de Groot, A. M. B. & Hagoort, P. (Eds.), *Research Methods in Psycholinguistics and the Neurobiology of Language: A Practical Guide*, Hoboken: NJ, Wiley-Blackwell, 2018),
 Experimental linguistics (Lecture): Introduction to neuroscience of language,

Methods in linguistics (Seminar),
 Tutorial: Master's Thesis writing,
 Seminar: Doctoral Thesis writing.

Oct. 2019–Dec. 2019. Lecturer/Instructor, Graduate School of Humanities, Kyushu University.

Experimental linguistics (Seminar): Biolinguistics (Textbook: Partee, B. H. et al., *Mathematical Methods in Linguistics*, Dordrecht, The Netherlands, Kluwer Academic Press, 1990),

Experimental linguistics (Lecture): Introduction to neuroscience of language,
 Methods in linguistics (Seminar),
 Tutorial: Master's Thesis writing,
 Seminar: Doctoral Thesis writing.

Apr. 2019–June 2019. Lecturer/Instructor, Graduate School of Humanities, Kyushu University.

Studies on modern culture C (Lecture): Neurolinguistics today,
 Experimental linguistics (Seminar): Biolinguistics (Textbook: Jenkins, L., *Biolinguistics: Exploring the Biology of Language*, New York: NY, Cambridge University Press, 2000),
 Experimental linguistics (Lecture): Introduction to neuroscience of language,
 Methods in linguistics (Seminar),
 Tutorial: Master's Thesis writing,
 Seminar: Doctoral Thesis writing.

Oct. 2018–Feb. 2019. Lecturer/Instructor, Graduate School of Humanities, Kyushu University.

Experimental linguistics (Seminar): Biolinguistics (Textbook: Hickok, G. & Small, S. L. (Eds.), *Neurobiology of Language*, London, UK, Academic Press, 2016),
 Experimental linguistics (Lecture): Introduction to neuroscience of language,
 Methods in linguistics (Seminar),
 Tutorial: Master's Thesis writing,
 Seminar: Doctoral Thesis writing.

Apr. 2018–July 2018. Lecturer/Instructor, Graduate School of Humanities, Kyushu University.

Studies on modern culture C (Lecture): Neurolinguistics today,
 Experimental linguistics (Seminar): Biolinguistics (Textbook: Gross, M. & Lentin A., *Introduction to Formal Grammars*, Berlin, Germany, Springer-Verlag, 1970),
 Experimental linguistics (Lecture): Introduction to neuroscience of language,
 Methods in linguistics (Seminar).

Mar. 2018. Lecturer, Graduate School of Humanities, Kyushu University.

Experimental linguistics (Lecture): On theoretical linguistics and cognitive neuroscience.

- Oct. 2016–Feb. 2017. Lecturer/Instructor, Graduate School of Humanities, Kyushu University.
 Theoretical linguistics (Seminar): Biolinguistics, (Textbook: Berwick, R. C. & Chomsky, N., *Why Only Us: Language and Evolution*, Cambridge: MA, The MIT Press, 2015)
 Theoretical linguistics (Lecture): Introduction to neuroscience of language,
 Methods in linguistics (Seminar).
- May 2016–June. 2016. Lecturer, Graduate School of Medicine, Juntendo University.
 Introduction to the basic medical science (Lecture): Basic structures of the central nerve system.
 Explained the basic structures of central nerve system to Master's students.

Undergraduate courses

- Oct. 2022–Feb. 2023. Lecturer, KIKAN Education, Kyushu University.
 Introduction to literature and linguistics (Lecture): Introduction to Neurolinguistics.
- Oct. 2022–Feb. 2023. School of Letters, Kyushu University.
 Foundations of the humanities: Mysteries of the language: A neuroscientific perspective,
 The Humanities: Communication and community (Lecture): Brain systems that support communication and language,
 Linguistics and applied linguistics (Seminar): Reading “Neuroscience of Language,”
 Thesis writing, linguistics and applied linguistics (Practice).
- Jul. 2022. Lecturer, School of Letters, Kyushu University.
 Linguistics and applied linguistics (Lecture): Introduction to neuroscience of language.
- Apr. 2022–July 2022. Lecturer, School of Letters, Kyushu University.
 Introduction to linguistics (Lecture): Linguistics and statistics I, linguistics and statistics II,
 neuroscience and phonology, neuroscience and morphology, neuroscience and syntax,
 Thesis writing, linguistics and applied linguistics (Practice).
- Oct. 2021–Feb. 2022. Lecturer, School of Letters, Kyushu University.
 Linguistics and applied linguistics (Seminar): Experimental methods in neuroscience of language,
 Linguistics and applied linguistics (Practice): Graduation thesis writing.
- Apr. 2021–June 2021. Lecturer, School of Letters, Kyushu University.
 Introduction to linguistics (Lecture): Neuroscience and morphology, neuroscience and syntax, linguistics and statistics,
 Linguistics and applied linguistics (Lecture): Introduction to neuroscience of language,
 Linguistics and applied linguistics (Practice): Graduation thesis writing.
- Oct. 2020–Feb. 2021. Lecturer, School of Letters, Kyushu University.

- The Humanities: Communication and community (Lecture): Brain systems that support communication and language,
 Introduction to linguistics (Lecture): Neuroscience and morphology, neuroscience and syntax, linguistics and statistics,
 Linguistics and applied linguistics (Seminar): Experimental methods in neuroscience of language,
 Linguistics and applied linguistics (Practice): Graduation thesis writing.
 Oct. 2020–Feb. 2021. Instructor, KIKAN Education, Kyushu University.
 Interdisciplinary Collaborative Learning of Social Issues (Lecture and Seminar):
 Elucidation of mechanisms and their applications in humans, insects, and machines:
 Elucidation of the brain mechanism of language and its application.
 May. 2020–June 2020. Lecturer, School of Letters, Kyushu University.
 Linguistics and applied linguistics (Lecture): Introduction to neuroscience of language,
 Linguistics and applied linguistics (Practice): Graduation thesis writing.
 Oct. 2019–Dec. 2019. Lecturer, School of Letters, Kyushu University.
 Foundations of the Humanities: Mysteries of the language: A neuroscientific perspective,
 Linguistics and applied linguistics (Seminar): Experimental methods in neuroscience of language,
 Linguistics and applied linguistics (Practice): Graduation thesis writing.
 June. 2019. Lecturer, Faculty of Global Communications, Toyo Gakuen University.
 English Phonology (Lecture): (The neural bases of) Phonology
 Apr. 2019–June 2019. Lecturer, School of Letters, Kyushu University.
 Introduction to linguistics (Lecture): Neuroscience and morphology, neuroscience and syntax, linguistics and statistics,
 Linguistics and applied linguistics (Lecture): Introduction to neuroscience of language,
 Linguistics and applied linguistics (Practice): Graduation thesis writing.
 Nov. 2018. Lecturer, Faculty of Global Communications, Toyo Gakuen University.
 Seminar in English Linguistics: Introduction to Neuroscience of language: Why should we need to study brain in linguistics?
 Oct. 2018–Feb. 2019. Lecturer/Instructor, School of Letters, Kyushu University.
 The Humanities: Communication and community (Lecture): Brain systems that support communication and language,
 Linguistics and applied linguistics (Seminar): Introduction to statistical methods in linguistics,
 Linguistics and applied linguistics (Practice): Graduation thesis writing.
 Apr. 2018–July 2018. Lecturer, KIKAN Education, Kyushu University.

- Introduction to literature and linguistics (Lecture): Introduction to Neurolinguistics: On language comprehension, language acquisition, and language disorder.
Apr. 2018–July 2018. Lecturer, School of Letters, Kyushu University.
- Introduction to linguistics (Lecture): Neuroscience and morphology, neuroscience and syntax, linguistics and statistics,
Linguistics and applied linguistics (Lecture): Introduction to neuroscience of language.
Mar. 2018. Lecturer, School of Letters, Kyushu University.
- Linguistics and applied linguistics (Lecture): On theoretical linguistics and cognitive neuroscience.
June 2016–July 2016. Instructor, School of Medicine, Juntendo University.
- Basic seminar for medical students (Seminar).
Instructed basics for multiband fMRI to undergraduate students and trained fMRI analyses. The students evaluated the best scanning parameters for detecting BOLD signal.
Nov. 2016. Lecturer, School of Medicine, Juntendo University.
- Animal physiology (cell membrane, sensory, motor, integrated function) (Lecture): Sleep and brain waves, Association areas of the cerebral cortex.
Oct. 2016–Feb. 2017. Lecturer/Instructor, School of Letters, Kyushu University.
- Linguistics and applied linguistics (Lecture/Seminar): Introduction to statistical methods in linguistics.
Apr. 2016. Instructor, School of Medicine, Juntendo University.
- Medical research II (Seminar): How to read research papers written in English.

Extension courses

- July 2022. Lecturer, Meiji Gakuen Junior and Senior High School.
Approaching the mystery of language from the brain.
- July 2021. Lecturer, Fukuoka Prefectural Meizen High School.
Study language neuroscientifically: An introduction to neuroscience of language.
- Feb. 2021. Lecturer, Asahi Culture Center (A collaboration course with Kyushu University).
Frontiers in human science: Frontiers in neuroscience of language.
- Oct. 2020. Lecturer, Studying in Yamaguchi! New Frontier Seminar.
On language and brain.
- Dec. 2019. Lecturer, Fukuoka Prefectural Fukuoka Chuo High School.
Language is mysterious: An introduction to neuroscience of language.
- Oct. 2018–Mar. 2019. Lecturer, Workshop on Academic Skills.
How to get the JSPS research fellowship.

May 2018. Lecturer, Asahi Culture Center (A collaboration course with Kyushu University).

Language and human: The brain that rules human language.

Apr. 2018–present. Co-organizer of the Kyushu University Linguistic Seminar, in the Department of Linguistics, Kyushu University.

Apr. 2018–present. A journal club coordinator, in the Department of Linguistics, Kyushu University.

ADVISING and MENTORING

PhD advisees

2020–present Koki YAMAGUCHI

2018–present Daniel C. GALLAGHER

2018–present Jun NAKAJIMA

Graduate advisees (as a co-adviser)

2022–present Kiyoko TAKABA (Department of English)

2021–present Jun KAWAMITSU (Department of English)

2020–present Hajime MIYAMOTO (Department of English)

2020–present Yuta SAKIMUKI (Department of English)

2020–present Kodai SUENAGA (Department of English)

2019–present Yusuke HARADA

2019–present Aoi MASTUOKA

2019–present Hiroshi MIYAOKA

2019–present Yuya SAKUMOTO (Department of English)

2019–present Nozomi MORITAKE (Department of English)

2019–present Mai KUBOTA (Department of English)

2018–present Danning WANG

2018–2021 Norimasa HAYASHI (Department of English)

2018–2020 Shintaro ABE (Department of English)

2016–2022 Yuko URABE

Undergraduate advisees

2021–present Ryuga AKINAGA

2020–2022 Yutaka AIZAWA (Effects of visual and auditory modalities on brain activation associated with processing hierarchical structures)

2020–2022 Toru EGASHIRA (A study on the interpretation of sentences with structural ambiguity using event-related potentials)

- 2020–2022 Reina FUKAMI (Investigation of morphological processing of Japanese transitive-intransitive verb pairs using magnetoencephalography)
- 2020–2022 Aiko KOMORI (Investigation of the neural basis of syntactic processing using high-density transcranial electrical stimulation)
- 2020–2022 Soma TANAKA (Investigation of the neural basis of rendaku (sequential voicing) using mismatch negativity: Differences between phonological deviants and violation of Moto-ori Lyman’s law in Japanese compound words)
- 2019–2021 Yui FUKAE (An EEG study of structural ambiguity in Japanese relative clauses)
- 2019–2021 Yoshihide KUBO (An ERP study of syntactic factors involved in Japanese causative sentences)
- 2019–2022 Kyosuke MATSUMOTO (Effects of anodal transcranial direct current stimulation of the left inferior frontal cortex on grammar learning of a foreign language)
- 2019–2021 Wakana OISHI (Effects of transcranial alternating current stimulation on language comprehension)
- 2018–2020 Chisaki IWASHITA (Sound symbolism in Japanese onomatopoeia)
- 2018–2021 Mao KURIBAYASHI (Effects of electric stimulation to Japanese scrambled sentences)
- 2018–2020 Kazuki MAENO (Modulatory effects of transcranial direct current stimulation to the language areas)
- 2018–2020 Aoi MURATA (An ERP study of discourse effects of Japanese transitive-intransitive verb pairs)
- 2014–2016 Kyohei TANAKA
- 2014–2015 Hayate TADA

Research student mentees

- 2022–Present Jananeh SHALPOUSH
- 2021–Present Alaa Mohamed Salem ABOUZEID
- 2021–2022 Tomoko HYAKUTAKE
- 2018–2018 Daniel C. GALLAGHER

Visiting student mentees

- 2019–2020 Iskander Rifkatovich ZARIFOV (St Petersburg University, Russia)
- 2019–2020 Ziyuan WANG (Huazhong University of Science and Technology, China)
- 2018–2019 Jeong CHANSOL (Dong-Eui University, South Korea)

PROFESSIONAL SOCIETY

- 2009–present The Linguistic Society of Japan
- 2010–present The Japan Neuroscience Society
- 2011–present Society for the Neurobiology of Language
- 2014–present The Phonological Society of Japan

SERVICE

Committee memberships

- 2021–present Standing Committee (The Linguistic Society of Japan)
- 2021–present Ethics Committee (The Linguistic Society of Japan)

Departmental service (Kyushu University)

- 2022–present QFC-SP Committee (Kyushu University Future Creators in Science Project)
- 2022–present Student Affairs Committee (Faculty of Humanities)
- 2021–present Information Technology Committee (Faculty of Humanities)
- 2021–present Syllabus Administrator (Faculty of Humanities)
- 2020–2020 Working Group on Graduate Student Recruitment (Faculty of Humanities)
- 2019–present Future Planning Committee (Faculty of Humanities)
- 2018–2022 Student Support Committee (Faculty of Humanities)
- 2018–2020 Faculty Fellowship Committee (Faculty of Humanities)
- 2018–2019 Investigation Committee on the Campus Problems (Faculty of Humanities)
- 2017–present Data Science Center Management Committee (Education and Research Center for Mathematical and Data Science)

Other service

- 2020–present AirBridge (Working Group on Postgraduate Education)
- 2020–present Arclev academia strategists network

Dissertation committees

- 2022 Yuko URABE (Department of Linguistics)
- 2022 Masahiko MASUDA (Department of Linguistics)
- 2021 Norimasa HAYASHI (Department of English)
- 2019 Yang GUO (Nagasaki University of Foreign Studies)
- 2019 Luqin CHEN (Department of Linguistics)
- 2019 Rumi TAKAKI (Department of English)

Editorial board membership

2019–present Review Editor for “Language Sciences” in *Frontiers in Psychology* and *Frontiers in Communication*.

Ad-hoc journal reviewing

2022 *Issues in Japanese Psycholinguistics: From Comparative Perspectives; Joint Conference on Language Evolution* (× 3); *Frontiers in Communication*

2021 *Frontiers in Psychology* (x 2)

2020 *Frontiers in Psychology* (x 2); *Frontiers in Human Neuroscience* (x 1).

2019 *Frontiers in Psychology* (x 4); *Brain Research*.

2017 *Frontiers in Psychology*.

2015 *Biolinguistics; Gengo Kenkyu; Neuropsychologia*.

2012 *NeuroImage*.

2011 *Cerebral Cortex; NeuroImage*.

2010 *NeuroImage*.

Other social experience

Organizer of Special Symposium “Neuroscience of Language Opening the Way to the Future of Linguistics” at 164th LSJ Meeting

Chair of oral session “Language and Communication (2)” at *Neuroscience2018*.

Chair of oral session “Language” at *Neuroscience2015*.

REFERENCES

Professor Alec Marantz

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marantz@nyu.edu

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Graduate Program in Linguistics, Sophia University

n-fukui@sophia.ac.jp

Professor Kuniyoshi L. Sakai

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Tokyo

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Professor Masatoshi Koizumi

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Letters, Tohoku University

koizumi@sal.tohoku.ac.jp