# Takuto NAKAYAMA

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### **Education**

B.A. in Literature 2020 March at Keio University, Tokyo, Japan
 M.A. in Literature 2022 March at Keio University, Tokyo, Japan
 Ph.D. candidate 2025 February at Keio University, Tokyo, Japan
 Ph.D. in Literature expected 2026 March at Keio University, Tokyo, Japan

### **Research Interests**

- Computational Linguistics
- Quantitative Linguistics
- Mathematical Linguistics
- Linguistic Complexity

### Languages

Japanese (native), English (fluent), German (beginner)

### **Skills**

Python, LATEX

## **Publications**

#### **Research Articles**

- Nakayama, T. (in press.). 言語の複雑さを「測る」ことの正体 測度論基盤の目論みと測る対象としての言語 [What "measuring" linguistic complexity is: Measure theoretical foundation and a language as a measurable object]. *Fora*, 8.
- Nakayama, T. (2024). How Skewed is the World for a Language?: A Computational Approach to the Semantic Distribution of Languages, *Kyorin University Journal*, 41, 61 72.
- Nakayama, T. (2023). Is a language diachronically equally complex?: An information theory approach to linguistic complexity, *Kyorin University Journal*, 40, 75 87.
- Nakayama, T. (2021). How do speakers communicate with different linguistic knowledge?: The internal and external stabilizers of a language, *Colloqia*, 42, 51 62.
- Nakayama, T. (2020). Causality and resultantity in language: Language in individuals and groups, *Colloquia*, 41, 83 98.

## **Proceedings**

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#### **Conference Talks**

- Nakayama, T. (2024, March 11). 言語一般の計測を目指して: サブワードと分散意味論に基づく言語の複雑性計測 [Toward a linguiscitally general measurement: Measuring linguistic complexity based on subword tokens and distributional semantics]. [poster] The 31st Annual Conference of the Association for Natural Language Processing, Nagasaki, Japan.
- Nakayama, T. (2024, February 28). 言語は等しく多義的か?-サブワードと分散意味論に基づく形式-意味対応の分析 [Are languages equally polysemous?: An analysis of form-meaning pairing based on subword and distributional semantics]. [oral presentation] The 49th Annual Conference of the Japanese Association of Sociolinguistic Sciences, Tokyo, Japan.
- Nakayama, T. (2024 September, 10). *Linguistic complexity through form-meaning pairings: An information theoretical approach to equi-complexity of language* [oral presentation]. The 21st International Congress of Linguists, Poznań, Poland.
- Nakayama, T. (2024, March). 言語は等しく複雑か?: 多義語埋め込み表現による形式 意味対応の複雑性 [Is languages equally complex?: Complexity of form-meaning pairings through polysemous word enbeddings]. [poster] The 30th Annual Conference of the Association for Natural Language Processing, Kobe, Japan.
- Nakayama, T. (2023 August 8). *The equi-complexity vs. typology: Measurement of overall linguistic complexity and typological categories* [poster]. International Cognitive Linguistics Conference 16, Düsseldorf, Germany.
- Nakayama, T. (2023 June 29). Are all languages equally complex?: Information theory-based method to measure the overall complexity of a language [poster]. Quantitative Linguistics Conference 2023, Lausanne, Switzerland.
- Nakayama, T. (2022 July 16). Convergence and divergence in language: How do mutual understandings among speakers emerge from iterated interactions? [panel discussion]. Sociolinguistics Symposium 24, Ghent, Belgium.
- Nakayama, T. (2021, June 28). A convergence of language between child and mother: Semantic Analysis based on FCA [panel discussion]. 17th International Pragmatics Association, Winterthur, Switzerland.

## **Work Experience**

<ul> <li>April 2024 –</li> <li>March 2026</li> </ul>	research fellow	Japan Society for the Promotion of Science
• April 2024 –	English (part-time lecturer)	Kyoritsu Women's University, Tokyo
• April 2024 –	TOEFL English (part-time lecturer)	Kyoritsu Women's University, Tokyo
<ul> <li>April 2023 –</li> <li>March 2024</li> </ul>	editor-in-chief	Colloquia
• April 2022 –	English (part-time lecturer)	Kyorin University, Tokyo
• April 2022 –	Medical English (part-time lecturer)	Kyorin University, Tokyo

## **Grants**

- 2024 2026 Research Fellow (DC2), Japan Society for the Promotion of Science
- 2022 2024 Support for Pioneering Research Initiated by the Next Generation, Japan Science and Technology Age

# Memberships

- 2024 The Association for Natural Language Processing
- 2023 International Quantitative Linguistics Association
- 2022 Japan Association of Sociolinguistic Science