Sihan Chen

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EDUCATION

Massachusetts Institute of Technology — Cambridge, MA, United States
PhD in Cognitive Science — September 2020 - August 2026

- Advisor: Dr. Edward Gibson

University of Miami — Coral Gables, FL, United States
BS in Mechanical Engineering — January 2016 - December 2019

- Minor in Mathematics
- graduated summa cum laude

PROFESSIONAL EXPERIENCE

2026- **Research support technician (postdoc)**
Center for Brain and Cognition, Department i Escola d'Enginyeria, Universitat Pempeu Fabra, Barcelona, Spain

2020 **Assistant Scientist**
SilicoSpine Inc. Miami, FL

2018-2019 **Undergraduate Research Assistant**
Department of Mechanical Engineering, University of Miami

2017-2019 **Peer Tutor**
Camner Academic Resource Center, University of Miami

PUBLICATIONS

Journal Articles

1. Ramscar, M., **Chen, S.**, Futrell, R., Mahowald, K. (2026), Cross-Cultural Structures Of Personal Name Systems Reflect General Communicative Principles. *Nature Communications* 17:719
2. **Chen, S.**, Washington, L., Gibson, E. (2025), The influence on prior semantic knowledge on noisy-channel interpretation. *Quarterly Journal of Experimental Psychology*
3. Mao, R., **Chen, S.**, Gibson, E. (2025). Decoding the Implausible: Mandarin Sentence Interpretation through the Noisy Channel Model. *Memory and Cognition*
4. **Chen, S.**, Gil, D. (equal contributions), Gaponov, S., Reifegeste, J., Yuditha, T., Tatarinova, T., Progovac, L., and Benitez-Burraco, A. (2024), Cognitive and linguistic correlates of societal variation: A quantitative analysis. *PLoS ONE*
5. Benítez-Burraco, A., **Chen, S.**, Gil, D., (2024), The absence of a trade-off between morphological and syntactic complexity, *Frontiers in Language Sciences*
6. Zhan, M., **Chen, S.** (equal contributions), Levy, R., Lu, J., Gibson, E. (2023), Rational Sentence Interpretation in Mandarin Chinese. *Cognitive Science*, 47 (12), e13383
7. **Chen, S.**, Futrell, R., Mahowald, K. (2023), Investigating information-theoretic properties of the typology of spatial demonstratives. *Cognition*, 240, 105505.
8. **Chen, S.**, Nathaniel, S., Ryskin, R., Gibson, E., (2023), The effect of context on noisy-channel sentence comprehension. *Cognition*, 238, 105503.

9. Everett, C., **Chen, S** (2021), Speech adapts to differences in dentition within and across populations. *Scientific Reports* 11, 1066.
10. Zhu, Q., Gao, X., **Chen, S.**, Gu, W., Brown, M. D., (2020) Effects of Intervertebral Disc Degeneration on Mechanical and Electrical Signals at the Interface between Disc and Vertebra. *Journal of Biomechanics*, 104, 109756.

Conference Proceedings

1. Clark, T., **Chen, S.**, Nicolae, L. (2026), Greedy or not, here I come: Language production under vocabulary constraints in humans and resource-rational models. *Proceedings to the 48th Annual Meeting of the Cognitive Science Society*
2. **Chen, S.**, Gil, D., Benítez-Burraco, A. (2026), Grambank data offers some support for the view that sociopolitical complexity impacts on grammatical complexity. *Proceedings to the 16th International Conference on the Evolution of Language,* Plovdiv, Bulgaria
3. **Chen, S.**, Gibson, E., Ramscar, M. (2024), Availability, informatively and bustiness: Why average corpus measures are an inaccurate guide to surprisal in language. *Proceedings to the 46th Annual Meeting of the Cognitive Science Society*
4. **Chen, S.**, Gil, D., Benítez-Burraco, A., (2024), Languages of esoteric societies provide a window into a previous stage in the evolution of human languages. *Proceedings to the 15th International Conference on the Evolution of Language,* Madison, WI
5. Gil, D., **Chen, S.**, Benítez-Burraco, A., (2024), The Mekong-Mamberamo Mystery. *Proceedings to the 15th International Conference on the Evolution of Language,* Madison, WI
6. **Chen, S.** & Everett, C. (2020), Did Post-Neolithic Changes in Bite Configuration Impact Speech? A New Approach to the Question. *Proceedings to the 13th International Conference on the Evolution of Language,* Brussels, Belgium

Conference Presentations / Posters

1. **Chen, S**, Benítez-Burraco, A. (2025), Linguistic diversity as a barrier to disease spread. *Protolang 2025*, Vienna, Austria, September 16, 2025
2. **Chen, S**, Benítez-Burraco, A., Cahuana, C., Gil, D., Progovac, L., Reifegerste, J., Yuditha, T., & Tatarinova, T. (2023), Cognitive and genetic correlates of a single macro-parameter of crosslinguistics variation. *Protolang 2023*, Rome, Italy, September 27, 2023
3. **Chen, S**, Benítez-Burraco, A., Gaponov, S., Gil, D., Progovac, L., Reifegerste, J., Tatarinova, T. (2023), Linking language variation to sociopolitical variation. *Sociotypology: linking language variation to sociological diversity; Workshop at the 56th Annual Meeting of the Societas Linguistica Europaea* Athens, Greece, August 31, 2023
4. Benítez-Burraco, A., **Chen, S.**, Gil, D., Gaponov, S., Reifegeste, J., Yuditha, T., Tatarinova, T., & Progovac, Lj. (2023). Patterns of correlation between linguistic and sociopolitical complexity. Presentation at Complexity in Language Variation and Change 2023. Tokyo, Japan. August 4 2023 [online]
5. Yuditha, T., **Chen, S.**, Benítez-Burraco, A. (2023). Exotericity and Esotericity in Languages of Indonesia: A Priliminary Study. Talk presented at the 26th International Symposium on Malay and Indonesian Linguistics (ISMIL) 26, The University of Hawai'i at Mānoa, April 19, 2023. [online].
6. Washington, L., **Chen, S.**, Gibson, E. (2023), The Influence of Prior Semantic Knowledge in Noisy Channel Interpretation. Poster at the 36th Annual Conference on Human Sentence Processing, Pittsburgh, PA, March 9 2023

7. **Chen, S.**, Conway, B., Gibson, E. (2023), Russian blues do not reveal an effect of language on perception: a reanalysis of the original study. Poster at the 36th Annual Conference on Human Sentence Processing, Pittsburgh, PA, March 9 2023
8. Benítez-Burraco, A., Cahuana, C., **Chen, S**, Gil, D., Progovac, L., Reifegerste, J., Tatarinova, T. (2022), Cognitive and genetic correlates of a single macro-parameter of crosslinguistics variation. *Joint Conference on Language Evolution.* Kanazawa, Ishikawa, Japan, September 7, 2022
9. Fleming, J., **Chen, S.**, Gibson, E., (2022), Noisy-Channel Sentence Interpretation in Spanish. ABRCMS 2022, Anaheim, CA, November 2022
10. **Chen, S.**, Futrell, R., Mahowald, K. (2022), An information-theoretic approach to the typology of spatial adverbs. *The 4th Workshop on Research in Computational Typology and Multilingual NLP.* Seattle, WA, July 14, 2022
11. **Chen, S.**, Futrell, R., Mahowald, K. (2022), An information-theoretic approach to the typology of spatial adverbs. 35th Annual Conference on Human Sentence Processing. Santa Cruz, CA. March 25, 2022.
12. Zhu, Q., Gao, X., Brown, M. D., **Chen, S.**, Gu, W., (2020), Effects of Intervertebral Disc Degeneration on Mechanical and Electrical Signals at the Interface between Disc and Vertebra. Orthopaedic Research Society 2020 Annual Meeting. New Orleans, LA. February 5, 2020.

In Review

1. **Chen, S**, Benítez-Burraco, A.,, Language diversity impacts disease spread.
2. **Chen, S.**, Gil, D., and Benítez-Burraco, A. (in review). More complex societies have more complex kinship lexicons.
3. **Chen, S.**, Conway, B., Gibson, E. (in review), Russian blues reveal the effects of color lightness on perception.

In Prep

1. **Chen, S.**, Gibson, E., & Ramscar, M. (in prep). Information-theory and regularity principles on Mandarin classifier usage

AWARDS, FELLOWSHIPS, & GRANTS

2020-2022 **Hilibrand Fellowship**, MIT Dept of Brain and Cognitive Sciences

2022-2023 **Singleton Fellowship**, MIT Dept of Brain and Cognitive Sciences

2024 **Singleton Fellowship**, MIT Dept of Brain and Cognitive Sciences

PRESENTATIONS

Invited Talks

March 2024. *Cross-Cultural Structures Of Personal Name Systems Reflect General Communicative Principles*, Cog Lunch, MIT

November 2022. *Explaining language complexity from sociopolitical complexity*, Cog Lunch, MIT

May 2022. *Winawer et al. (2007) revisited: the role of language on color cognition*, Cog Lunch, MIT

December 2021. *Investigating the efficiency of spatial deictic adverbs*, Cog Lunch, MIT

TEACHING EXPERIENCE

2023 - 2024 **Lab in Psycholinguistics (9.59)**, Teaching Assistant MIT

2021 **Computational Cognitive Science (9.66)**, Teaching Assistant MIT

2018-2019 **Calculus II review session**, Peer Tutor University of Miami

MENTORING

2022	**Jorie Fleming**, MSRP Student, Washington University in St Louis	Cambridge, MA
2022	**Lia Washington**, Post-Baccalaureate Reserch Scholar, MIT	Cambridge, MA
2025 - 2026	**Yuyang Zhang**, Undergraduate research assistant, Wellesley College	Cambridge, MA
2025	**Nicole Ding**, Undergraduate research assistant, MIT	Cambridge, MA
2025	**Deeraj Pothapragada**, Undergraduate research assistant, MIT	Cambridge, MA
2025	**Jonathan Dase**, Undergraduate research assistant, MIT	Cambridge, MA
2025-2026	**Annie Guo**, Undergraduate research assistant, MIT	Cambridge, MA
2025-2026	**Zhenyi Zhou**, Undergraduate research assistant, Wellesley College	Cambridge, MA
2025-2026	**Iris Chen**, Undergraduate research assistant, MIT	Cambridge, MA
2025-2026	**Waiwa Kou**, Undergraduate research assistant, Wellesley College	Cambridge, MA
2026	**Rachel Zhu**, Undergraduate research assistant, MIT	Cambridge, MA
2026	**Xuewen Zhang**, Undergraduate research assistant, Wellesley College	Cambridge, MA
2026	**Phoebe Bo**, Undergraduate research assistant, Wellesley College	Cambridge, MA
2026	**Yijun Lyu**, Undergraduate research assistant, Wellesley College	Cambridge, MA

OUTREACH & PROFESSIONAL DEVELOPMENT

Service and Outreach

August 2024	**Linguistic typology and the cognitive science of non-WEIRD languages, Workshop at the 57th Annual Meeting of the Societas Linguistica Europaea**, Co-organizor	Helsinki, Finland
March 2026	**39th Annual Conference on Human Sentence Processing**, Co-organizor	Cambridge, MA, United States

Peer Review

- Journals: Open Mind, Nature, PNAS, Linguistics Vanguard, Linguistic Typology, PloS ONE, Cognition, Language and Cognition, Language Cognition and Neuroscience.
- Conferences: the 39th Annual Conference on Human Sentence Processing, the 2026 Annual Meeting of the Cognitive Science Society, the 2026 Computational Psycholinguistics Meeting

MEDIA COVERAGE

2026 **Why Do Lawyers Write This Way?**
MIT Spectrum, https://betterworld.mit.edu/spectrum/issues/summer-2026/why-do-lawyers-write-this-way/

2026 **What's in a name? Information structure parallels discovered across cultures - with repercussions for Asian names**
Phys.org, https://phys.org/news/2026-02-parallels-cultures-repercussions-asian.html

2023 **Uncovering the invisible pressures shaping language**
MIT News (MIT), https://news.mit.edu/2023/sihan-chen-uncovering-invisible-pressures-shaping-language-0627

2021 **Scholars link diet, dentition, and linguistics**
News@TheU (University of Miami), https://news.miami.edu/stories/2021/01/scholars-link-diet,-dentition,-and-linguistics.html

2019 **In Search for Hidden Worlds**
News@TheU (University of Miami), https://news.miami.edu/stories/2019/03/in-search-of-hidden-worlds.html

LANGUAGES

- Native / bilingual proficiency: Mandarin Chinese, English
- Intermediate: Spanish, Greek
- Beginner: Turkish, Italian
- Programming languages: Python, R, Matlab
- Writing systems: Chinese, Latin, Cyrillic, Greek, Armenian