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Chao Han

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EMPLOYMENT

2024–present **Postdoctoral Fellow**
Department of Language Studies, University of Toronto Scarborough, Canada

2023 **Adjunct Professor**
Department of Linguistics and Cognitive Science, University of Delaware, USA

EDUCATION

2023 **Ph.D. in Linguistics.** University of Delaware, Newark, USA
Dissertation title: The Nature of Speech Representation in Varying-Standard MMN Paradigm
Dissertation committee: Arild Hestvik (advisor), William Idsardi, Irene Vogel, Zhenghan Qi

2015 **M.A. in Linguistics.** University of Delaware, Newark, USA

2014 **M.A. in Linguistics and Applied Linguistics.** Beijing Foreign Studies University, Beijing, China

2009 **B.A. in English.** Beijing Foreign Studies University, Beijing, China

2009 **Bachelor of Economics in International Economics and Trade.** Beijing Foreign Studies University, Beijing, China

PUBLICATIONS AND MANUSCRIPTS

Manuscripts Under Review

Chao Han, Yoonjung Kang, Juhyung Cho, Tae-Won Lim, Say Young Kim, & Philip J. Monahan. The functional status of f0 shapes the neural encoding of English stop voicing contrasts: Evidence from Korean and English listeners. Under review at *Language, Cognition and Neuroscience*.

Zhiyin Renee Dong, **Chao Han**, & Shaofeng Li. The joint effects of anxiety, boredom, and grit on the motivated behavior of U.S. university learners of Spanish. Under review at *Studies in Second Language Learning and Teaching*.

Khushi Nilesh Patil, **Chao Han**, & Philip J. Monahan. I like when you speak my language: Talker accent modulates evoked and induced neurophysiological processing of code-switched speech. Under review at *Cortex*.

Zhiyin Renee Dong, **Chao Han**, & Xian Zhao. When vision meets emotional difficulty: The role of L2 grit in linking the ideal L2 self to achievement among U.S. university learners of Spanish. Under review at *Language Teaching Research*.

Zhiyin Renee Dong, **Chao Han**, Shaofeng Li, & Zhiying Qian. How does enjoyment translate into motivated behavior? The mediating role of L2 grit among college-level learners of Chinese as a foreign language in North America. Under review at *System*.

Journal Articles

Chao Han, Arild Hestvik, & William J. Idsardi (2026). Within-category mismatch responses to parametrically varying speech sounds. *European Journal of Neuroscience, 63*(8), e70482. https://doi.org/10.1111/ejn.70482

Lauren L. Hong, **Chao Han**, & Philip J. Monahan (2026). Language experience shapes neural grouping of speech by accent: EEG evidence from native, second-language, and heritage listeners. *Brain Sciences, 16*(2), 174. https://doi.org/10.3390/brainsci16020174

Zhiyin Renee Dong, **Chao Han**, & Shaofeng Li (2025). Feedback explicitness, working memory, and explicit knowledge in online classroom-based second language Mandarin tone learning. *Language Teaching Research*. https://doi.org/10.1177/13621688251378559

Yasuaki Shinohara, **Chao Han**, & Arild Hestvik (2024). English vowel discrimination and perceptual assimilation by Japanese listeners. *Language and Speech, 67*(4), 945–960. https://doi.org/10.1177/00238309231209311

Zhiyin Renee Dong, **Chao Han**, Arild Hestvik, & Gabriella Hermon (2023). L2 processing of filled gaps: Non-native brain activity not modulated by proficiency and working memory. *Linguistic Approaches to Bilingualism, 13*(6), 767–800. https://doi.org/10.1075/lab.20058.don

Yasuaki Shinohara, **Chao Han**, & Arild Hestvik (2022). Discriminability and prototypicality of non-native vowels. *Studies in Second Language Acquisition, 44*(5), 1260–1278. https://doi.org/10.1017/S0272263121000978

Ryan Rhodes, Enes Avcu, **Chao Han**, & Arild Hestvik (2022). Auditory predictions are phonological when phonetic information is variable. *Language, Cognition and Neuroscience, 37*(9), 1099–1114. https://doi.org/10.1080/23273798.2022.2043395

Ryan Rhodes, **Chao Han**, & Arild Hestvik (2019). Phonological memory traces do not contain phonetic information. *Attention, Perception, & Psychophysics, 81*(4), 897–911. https://doi.org/10.3758/s13414-019-01728-1

Conference Proceedings

Daiki Asami, **Chao Han**, Jacob Burger, Deanna Dunlop, Yue Lu, Effah Y. Morad, Chenyue Zhao, & Arild Hestvik (2025). "Negation-blind" N400 effect disappears when lexical priming is controlled. *Experiments in Linguistic Meaning, 3*, 19–31. https://doi.org/10.3765/elm.3.5800

Arild Hestvik, Thierry Morlet, Kyoko Nagao, & **Chao Han** (2023). Auditory processing disorder targets phonetics, not phonology. *Proceedings of the 47th Annual Boston University Conference on Language Development* (pp. 356–365). Cascadilla Press.

Chao Han, Irene Vogel, Yue Yuan, & Angeliki Athanasopoulou (2020). Perceptual confusion of Mandarin tone 3 and tone 4. *University of Pennsylvania Working Papers in Linguistics, 26*(1), 97–103.

Ryan Rhodes, **Chao Han**, & Arild Hestvik (2019). Ad hoc phonetic categorization and prediction. *Proceedings of the 19th International Congress of Phonetic Sciences* (pp. 1223–1227).

Yasuaki Shinohara, **Chao Han**, & Arild Hestvik (2019). Effects of perceptual assimilation: The perception of English /æ/, /ʌ/, and /ɑ/ by Japanese speakers. *Proceedings of the 19th International Congress of Phonetic Sciences* (pp. 2344–2348).

Irene Vogel, Angeliki Athanasopoulou, **Chao Han**, & Yue Yuan (2019). How perceptible is the difference between tone 3 and tone 4 in Mandarin Chinese? *Proceedings of the 19th International Congress of Phonetic Sciences* (pp. 2027–2031).

Angeliki Athanasopoulou, Irene Vogel, **Chao Han**, & Yue Yuan (2019). Confusability of Mandarin tone 3 and tone 4: Effects of focus and syllable position. *Proceedings of the 19th International Congress of Phonetic Sciences* (pp. 442–446).

CONFERENCE PRESENTATIONS

Zhiyin Renee Dong, & **Chao Han** (2027, August). *Linking emotions to motivated behavior among university Spanish learners: The mediating role of L2 grit* [Talk accepted]. The 22nd World Congress of the International Association of Applied Linguistics (AILA), Vancouver, Canada.

Zhiyin Renee Dong, & **Chao Han** (2027, March). *From emotions to motivated behavior: Differential pathways through L2 grit among university learners of Spanish* [Talk accepted]. The 2027 American Association for Applied Linguistics (AAAL) Conference, Atlanta, USA.

Jacob Burger, Arild Hestvik, William J. Idsardi, & **Chao Han** (2026, October). *Rotated speech and underspecification-driven MMN* [Talk]. The 11th Mismatch Negativity Conference, Bari, Italy.

Zhiyin Renee Dong, & **Chao Han** (2026, October). *How enjoyment drives motivated behavior: The mediating role of L2 grit in L2 Spanish learning* [Talk]. The 2026 Second Language Research Forum, Montréal, Canada.

Chao Han, Yoonjung Kang, Juhyung Cho, Tae-Won Lim, Say Young Kim, & Philip J. Monahan (2026, June). *The functional status of F0 shapes the neural encoding of English stop voicing contrasts: Evidence from Korean and English listeners* [Talk]. LabPhon 20, Montréal, Canada.

Chao Han, Tae-Won Lim, Say Young Kim, William J. Idsardi, & Philip J. Monahan (2025, September). *Language-specific phonological patterning shapes neural encoding of phonetic categories* [Poster]. Society for the Neurobiology of Language 17th Annual Meeting, Washington, DC, USA.

Chao Han, Katie Ma, Yoonjung Kang, & Philip J. Monahan (2025, September). *Pre-attentive phonological encoding does not track phonetic cue weighting* [Poster]. Society for the Neurobiology of Language 17th Annual Meeting, Washington, DC, USA.

Khushi Nilesh Patil, **Chao Han**, & Philip J. Monahan (2025, September). *Wait, who said that?: Talker accent modulates neural processing of Mandarin–English code-switched speech* [Poster]. Society for the Neurobiology of Language 17th Annual Meeting, Washington, DC, USA.

Jacob Burger, Arild Hestvik, William J. Idsardi, **Chao Han**, Azia Knox, & Tarleton Hill (2025, September). *Separating acoustics from phonology with rotated speech* [Poster]. Society for the Neurobiology of Language 17th Annual Meeting, Washington, DC, USA.

Jacob Burger, Arild Hestvik, **Chao Han**, Tarleton Hill, William J. Idsardi, Azia Knox, & Abdulaziz Alromihi (2025, May). *Neural investigation of underspecification with rotated speech* [Talk]. The 13th North American Phonology Conference, Montréal, Canada.

Chao Han, Katie Ma, Philip J. Monahan, & Yoonjung Kang (2025, April). *Neurophysiological encoding of VOT and F0 in voicing perception* [Talk]. [mot^{h}] Phonetics/Phonology 2025 workshop, Toronto, Canada.

Lauren L. Hong, **Chao Han**, & Philip J. Monahan (2024, November). *The accented brain: An EEG study on talker variability* [Poster]. Psychonomic Society 65th Annual Meeting, New York City, USA.

Chao Han, Arild Hestvik, & William J. Idsardi (2024, September). *Sensitivity to statistical stimulus properties in within-category MMN* [Talk]. The 10th Mismatch Negativity Conference, Salamanca, Spain.

Chao Han, Arild Hestvik, & William J. Idsardi (2023, June). *Memory trace retention of acoustic details within a category* [Talk]. PhonolEEGy2, LSA Summer Institute, UMass Amherst, USA.

Arild Hestvik, Thierry Morlet, Kyoko Nagao, & **Chao Han** (2022, November). *Auditory processing disorder targets phonetics, not phonology* [Talk]. The 47th Boston University Conference on Language Development, Boston, USA.

Chao Han, Arild Hestvik, Ryan Rhodes, & William J. Idsardi (2022, October). *Symbolic vs. gradient phonemes* [Poster]. The 14th Annual Meeting of the Society for the Neurobiology of Language, Philadelphia, USA.

Chao Han, Arild Hestvik, & Ryan Rhodes (2022, October). *What does varying the standards in an MMN paradigm really do?* [Poster]. The 14th Annual Meeting of the Society for the Neurobiology of Language, Philadelphia, USA.

Chao Han, Ryan Rhodes, William J. Idsardi, & Arild Hestvik (2022, September). *Symbolic vs. gradient phonemes* [Poster]. The 9th Mismatch Negativity Conference, Fukushima, Japan.

Chao Han, Yue Yuan, & Irene Vogel (2019, March). *Perception of Mandarin tone 3 and tone 4: Effects of syllable position and focus* [Talk]. The 43rd Penn Linguistics Conference, Philadelphia, USA.

Enes Avcu, Ryan Rhodes, **Chao Han**, & Arild Hestvik (2019, January). *P300 as an index of phonotactic violation* [Poster]. The 93rd Annual Meeting of the Linguistic Society of America, New York, USA.

Enes Avcu, Ryan Rhodes, **Chao Han**, & Arild Hestvik (2018, November). *Neurophysiological signature of phonotactic rule-learning* [Poster]. The 59th Annual Meeting of the Psychonomic Society, New Orleans, USA.

Chao Han, Olivia Pereira, Cassidy Walter, Thierry Morlet, Arild Hestvik, & Kyoko Nagao (2018, October). *Phoneme identification of children with various auditory processing deficits* [Talk]. The 12th Mini-Conference on Acoustics, Washington, DC, USA.

Chao Han, Yue Yuan, & Irene Vogel (2018, October). *Perceptual confusion of Mandarin tone 3 and tone 4* [Poster]. International Forum on Frontiers in Linguistics, Beijing, China.

Enes Avcu, Ryan Rhodes, **Chao Han**, & Arild Hestvik (2018, October). *Neural underpinnings of phonotactic rule learning* [Poster]. The 49th Annual Meeting of the North East Linguistic Society, New York, USA.

Ryan Rhodes, & **Chao Han** (2018, August). *Phonetic content of auditory representations* [Poster]. The 10th Annual Meeting of the Society for the Neurobiology of Language, Québec City, Canada.

Olivia Pereira, **Chao Han**, Arild Hestvik, Thierry Morlet, & Kyoko Nagao (2018, June). *Phonetic vs. phonological MMN: A novel approach to detect auditory processing deficit in children* [Poster]. The 8th Mismatch Negativity Conference, Helsinki, Finland.

Ryan Rhodes, **Chao Han**, & Arild Hestvik (2018, June). *No ad hoc perceptual grouping of speech sounds in the varying standards oddball paradigm* [Poster]. The 8th Mismatch Negativity Conference, Helsinki, Finland.

Olivia Pereira, Arild Hestvik, Thierry Morlet, **Chao Han**, Samantha Scharf, Rachele Sklar, Julianne Nemith, Brooke DeVore, & Kyoko Nagao (2017, October). *Using the mismatch negativity paradigm to explore the deficits in children with auditory processing disorder* [Poster]. DE-CTR ACCEL 4th Annual Meeting, Newark, USA.

Ryan Rhodes, **Chao Han**, & Arild Hestvik (2017, March). *The ad hoc perceptual grouping of speech sounds in the varying standards oddball paradigm* [Poster]. The 24th Annual Meeting of the Cognitive Neuroscience Society, San Francisco, USA.

Chao Han, & Yaping Chen (2013, November). *Are Chinese people facing the past? Experimental evidence for Chinese spatiotemporal representations* [Talk]. The 2nd International Conference on Psycholinguistics, Fujian, China.

Chao Han, & Yaping Chen (2013, July). *Psychological reality of space-time metaphors in the horizontal and vertical dimensions in Mandarin* [Talk]. The 3rd National Forum on Neurolinguistics and Second Language Acquisition, Beijing, China.

GRANTS

2021–2023 NSF BCS-2041266, Doctoral Dissertation Research Improvement Grant ($19,200)
Role: Co-PI (PI: Arild Hestvik)

TEACHING

University of Delaware, Newark, DE, USA

Instructor

CGSC420/620 Research Methods in Cognitive Science | Fall 2023
CGSC496/696 Psycholinguistics | Spring 2022
CGSC433/633 Introduction to Acoustic Phonetics | Spring 2020
CGSC470/670 Elements of Cognitive Science | Fall 2019

Teaching Assistant

CGSC420/620 Research Methods in Cognitive Science | Fall 2021
PSYC209 Measurement and Statistics | Fall 2018, Spring 2019
CGSC433/633 Introduction to Acoustic Phonetics | Spring 2018
PSYC390 Social Psychology | Fall 2017
CGSC170 Introduction to Cognitive Science | Spring 2017, Fall 2022
LING403/603 Introduction to Phonology | Fall 2016
PSYC100 General Psychology | Spring 2016
LLCU622 Language Syllabus Design | Spring 2024
LLCU624 Second Language Testing | Fall 2022, Fall 2023
CHIN105 Chinese I Elementary | Fall 2020, Fall 2021, Fall 2022, Fall 2023
CHIN106 Chinese II Elementary/Intermediate | Spring 2022, Spring 2024
CHIN107 Chinese III Intermediate | Spring 2024
CHIN201 Advanced Intermediate Chinese | Spring 2021, Spring 2022
CHIN350 Business Chinese | Spring 2021
CHIN367 Society and Family in Contemporary Chinese Films | Spring 2022, Spring 2024

HONORS AND AWARDS

2015–2022 Summer Research Grant, University of Delaware
2017–2018 Professional Development Award, University of Delaware
2012 Xu Gehui Alumni Scholarship, Beijing Foreign Studies University

SERVICE

Lab Manager Experimental Psycholinguistics Lab, University of Delaware
Reviewer Bilingualism: Language and Cognition; Language and Speech; Language, Cognition and Neuroscience
Organizing Linguistics Colloquium Series, University of Delaware (2017–2018)
47th Linguistic Symposium on Romance Languages (2017)
Linguistics and Cognitive Science Student Conference, University of Delaware (2018)
Linguistics Reading Salon, Beijing Foreign Studies University (2012–2013)

SKILLS

Programming R, Python, MATLAB, Praat, E-Prime

Languages Mandarin Chinese (native), Wu Chinese (native), English (fluent), Japanese (intermediate), French (beginner)