

Chao Han

Department of Linguistics and Cognitive Science, University of Delaware

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EDUCATION

- 2016 – Ph.D. in Linguistics, University of Delaware, Newark, DE, USA.
- 2015 M.A. in Linguistics and Cognitive Science, University of Delaware, Newark, DE, USA.
- 2014 M.A. in Linguistics and Applied Linguistics, Beijing Foreign Studies University, Beijing, China.
- 2009 B.A. in English Language and Literature, Beijing Foreign Studies University, Beijing, China.
B.A. in International Economics and Trade, Beijing Foreign Studies University, Beijing, China.

Lab Experience

- 2015 – Lab manager (2019), Experimental Psycholinguistics Lab, University of Delaware, Department of Linguistics and Cognitive Science. Director: Dr. Arild Hestvik.
- 2016 UD Stress Lab, University of Delaware, Department of Linguistics and Cognitive Science. Director: Dr. Irene Vogel.
- 2015 Child's Play, Learning and Development Lab, University of Delaware, School of Education. Director: Dr. Roberta Golinkoff.

RESEARCH GRANTS

- 2021 – 2023 Project title: Evoked category representation.
 - Funding: National Science Foundation (NSF) Doctoral Dissertation Research Improvement Grants (DDRIG) BCS-2041266 (PI: Hestvik, A. Co-PI: Han, C.)
 - *Role*: Co-PI. Designed the experiment; co-authored the proposal.
- 2018 – 2019 Project title: Study of brain indices of vowel perception among Japanese learners of English, compared to native speakers of English.
 - Funding: Japan Society for Promotion of Science KAKENHI grant 16K16884 and 19K1316 (PI: Shinohara, Y. Co-PI: Hestvik, A.).
 - *Role*: Collaborator. Collected behavioral and EEG data from English native speakers; preprocessed EEG data; conducted ERP analysis; co-authored manuscripts.
- 2015 – 2017 Project title: From signal to symbol: Where is the auditory processing deficit?
 - Funding: National Institutes of Health (NIH) Centers of Biomedical Research Excellence (COBRE) grant (PI: Nagao, K. Co-PI: Hestvik, A. and Morlet, T.). Institutional Development Award (IDeA) from the National Institute of General Medical Sciences (NIGMS) of the National Institutes of Health (NIH), grant U54-GM104941 (PI: Binder-Macleod, S.).
 - *Role*: Collaborator. Programmed the experiment; analyzed behavioral data; preprocessed EEG data; conducted ERP analysis.

PUBLICATIONS

Peer-Reviewed Journal Publication

Rhodes, R., **Han, C.**, Hestvik, A. (2019). Phonological memory traces do not contain phonetic information. *Attention, Perception, & Psychophysics*, 81(4), pp. 897–911.

Dong, R., **Han, C.**, Hestvik, A., Hermon, G. (accepted by *Linguistic Approaches to Bilingualism*). L2 processing of filled gaps: Nativelike proficiency but non-native brain activity.

Shinohara, Y., **Han, C.**, Hestvik, A. (accepted by *Studies in Second Language Acquisition*). Familiarity and discriminability of non-native vowels.

Peer-Reviewed Conference Proceedings

Shinohara, Y., **Han, C.**, Hestvik, A. (2019). The perception of English vowels /æ/, /ʌ/, and /ɑ/ by Japanese speakers. In S. Calhoun, P. Escudero, M. Tabain, & P. Warren (Eds.), *Proceedings of the 19th International Congress of Phonetic Sciences, Melbourne, Australia 2019* (pp. 2344-2348).

Rhodes, R., **Han, C.**, Hestvik, A. (2019). Ad hoc phonetic categorization and prediction. In S. Calhoun, P. Escudero, M. Tabain, & P. Warren (Eds.), *Proceedings of the 19th International Congress of Phonetic Sciences, Melbourne, Australia 2019* (pp. 1223-1227).

Vogel, I., Athanasopoulou, A., **Han, C.**, Yue, Y. (2019). How perceptible is the difference between tone 3 and tone 4 Mandarin? In S. Calhoun, P. Escudero, M. Tabain, & P. Warren (Eds.), *Proceedings of the 19th International Congress of Phonetic Sciences, Melbourne, Australia 2019* (pp. 2027-2031).

Athanasopoulou, A., Vogel, I., **Han, C.**, Yue, Y. (2019). Confusability of Mandarin tone 3 and tone 4: Effects of focus and syllable position. In S. Calhoun, P. Escudero, M. Tabain, & P. Warren (Eds.), *Proceedings of the 19th International Congress of Phonetic Sciences, Melbourne, Australia 2019* (pp. 442-446).

Manuscripts Submitted

Rhodes, R., Avcu, E., **Han, C.**, Hestvik, A. (under revision, submitted to *Language, Cognition and Neuroscience*). Auditory predictions are phonetic—even when phonetic information is variable.

Shinohara, Y., **Han, C.**, Hestvik, A. (under revision, submitted to *Journal of the Acoustical Society of America*). English vowel discrimination and perceptual assimilation by Japanese speakers.

PRESENTATIONS

Conference proceeding

Han, C., Vogel, I., Yuan, Y., Athanasopoulou, A. (2020). Perceptual confusion of Mandarin tone 3 and tone 4. *University of Pennsylvania Working Papers in Linguistics*, 26(1), 12.

Conference talks

Han, C., Yuan, Y., Vogel, I. (2019). Perception of Mandarin tone 3 and tone 4: Effects of syllable position and focus. Talk at *The 43rd Penn Linguistics Conference*, Philadelphia, USA.

Han, C., Pereira, O., Walter, C., Morlet, T., Hestvik, A., & Nagao, K. (2018). Phoneme identification of children with various auditory processing deficits. Talk at *The 12th Mini-Conference on Acoustic*, Washington, DC, USA.

Han, C., Chen, Y. (2013). Are Chinese people facing Past? Experimental evidence for Chinese spatiotemporal representations. Talk at *The 2nd International Conference on Psycholinguistics*, Fujian, China.

Han, C., Chen, Y. (2013). Psychological reality of space-time metaphors in the horizontal and the vertical dimensions in Mandarin. Talk at *The 3rd National Forum on Neurolinguistics and Second Language Acquisition*, Beijing, China.

Conference posters

Avcu, E., Rhodes, R., **Han, C.,** & Hestvik, A. (2019). P300 as an index of phonotactic violation. Poster at *The 93rd Annual Meeting of the Linguistic Society of America*, New York, USA.

Avcu, E., Rhodes, R., **Han, C.,** & Hestvik, A. (2018). Neurophysiological signature of phonotactic rule-learning. Poster at *The 59th Annual Meeting of Psychonomic Society*, New Orleans, USA.

Han, C., Yuan, Y., Vogel, I. (2018). Perceptual confusion of Mandarin tone 3 and tone 4. Poster at *The International Forum on Frontiers in Linguistics*, Beijing, China.

Rhodes, R., **Han, C.** (2018). Phonetic content of auditory representations. Poster at *The 10th Annual Meeting of the Society for the Neurobiology of Language*, Québec City, Canada.

Avcu, E., Rhodes, R., **Han, C.,** & Hestvik, A. (2018). Neural underpinnings of phonotactic rule Learning. Poster at *The 49th Annual Meeting of the North East Linguistic Society*, New York, USA.

Pereira, O., **Han, C.,** Hestvik, A., Morlet, T., & Nagao, K. (2018). Phonetic vs. phonological MMN: A novel approach to detect auditory processing deficit in children. Poster at *The 8th Mismatch Negativity Conference*, Helsinki, Finland.

Rhodes, R., **Han, C.,** Hestvik, A. (2018). No ad hoc perceptual grouping of speech sounds in the varying standards oddball paradigm. Poster at *The 8th Mismatch Negativity Conference*, Helsinki, Finland.

Rhodes, R., **Han, C.,** Hestvik, A. (2017). The ad hoc perceptual grouping of speech sounds in the varying standards oddball paradigm. Poster presented at *The 24th Annual Meeting of the Cognitive Neuroscience Society*, San Francisco, CA.

Pereira, O., Hestvik, A., Morlet, T., **Han, C.,** Scharf, S., Sklar, R., Nemith, J., DeVore, B., & Nagao, K. (2017). Using the mismatch negativity paradigm to explore the deficits in children with auditory processing disorder. Poster at *The DE-CTR ACCEL 4th Annual Meeting*, Newark, DE, USA.

TEACHING

Instructor, Department of Linguistics and Cognitive Science, University of Delaware.

- CGSC433/633: Introduction to Acoustic Phonetics
- CGSC470/670: Elements of Cognitive Science

Teaching Assistant, Department of Psychological and Brain Sciences, University of Delaware.

- PSYC209: Measurement and Statistics
- PYSC390: Social Psychology
- PYSC100: General Psychology

Teaching Assistant, Department of Linguistics and Cognitive Science, University of Delaware.

- CGSC433: Introduction to Acoustic Phonetics
- CGSC170: Introduction to Cognitive Science
- LING403/604: Introduction to Phonology

HONORS AND AWARDS

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| 2018 | The 2 nd place of the Best Student Papers Competition at the 12 th Mini-Conference on Acoustics. |
| 2017 – 2018 | Professional Development Award, from University of Delaware travel grant. |
| 2015 – 2019 | Summer Research Grant, from University of Delaware, Department of Linguistics and Cognitive Science. |
| 2012 | Xu Gehui Scholarship, Beijing Foreign Studies University. |

SERVICES

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| 2019 | Reviewer for <i>Language, Cognition and Neuroscience</i> . |
| 2018 | Student Organizer for Linguistics and Cognitive Science Student Conference, University of Delaware. |
| 2017 – 2018 | Linguistics Colloquium Committee member, Department of Linguistics and Cognitive Science, University of Delaware. |
| 2017 | Student Organizer for The 47 th Linguistic Symposium on Romance Languages. |
| 2012 – 2013 | Organizer for Linguistics Center Reading Salon, Beijing Foreign Studies University. |
| 2012 – 2013 | Secretary for Graduate Student Association, School of English and International Studies, Beijing Foreign Studies University. |

LANGUAGES AND SKILLS

- Mandarin, Rui'an Dialect, English, Japanese
- R, MATLAB, Python