

Jieun Song

Postdoctoral Research Associate

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Education

- 2018 **PhD** in Speech, Hearing and Phonetic Sciences
University College London, London, UK
Thesis: *The effects of adverse conditions on speech recognition by non-native listeners: Electrophysiological and behavioural evidence*
Supervisors: Prof. Paul Iverson (primary), Prof. Valerie Hazan (secondary)
- 2011 **MA** in Linguistics
Seoul National University, Seoul, South Korea
Thesis: *The interlanguage speech intelligibility benefit of English stress for Korean talkers and listeners*
Supervisor: Prof. Ho-Young Lee
- 2008 **BA** in Linguistics (Summa cum laude)
Seoul National University, Seoul, South Korea

Employment

- Oct 2017 - present **Postdoctoral Research Associate**
Dept. of Speech, Hearing and Phonetic Sciences, University College London, UK

Research Interests

Second-language speech perception and production; Neural processing of speech; Speech development in children; Bilingualism; Korean phonetics

Peer-reviewed Publications

7. Lee, H-Y. & **Song**, J.* (2019). Evaluating Korean learners' English rhythm proficiency with measures of sentence stress, *Applied Psycholinguistics*, 40(6), 1363-1376.
6. **Song**, J., Martin, L. & Iverson, P. (2019). Native and non-native speech recognition in noise: neural measures of auditory and lexical processing, *Proceedings of the 19th International Congress of Phonetic Sciences (ICPhS 2019)*, Melbourne.
5. **Song**, J. & Iverson, P. (2018). Listening effort during speech perception enhances auditory and lexical processing for non-native listeners and accents, *Cognition*, 179, 163-170.
4. Lee, G. G., Lee, H-Y., **Song**, J., Kim, B., Kang, S., Lee, J. & Hwang, H. (2017). Automatic sentence stress feedback for non-native English learners, *Computer Speech and Language*, 41, 29-42.

3. **Song, J. & Iverson, P. (2015).** Measuring speech-in-noise intelligibility for spontaneous speech: The effect of native and non-native accents, *Proceedings of the 18th International Congress of Phonetic Sciences (ICPhS 2015)*, Glasgow.
2. **Song, J. (2013).** Variable Schwa Deletion in English: A Corpus Study, *Studies in Phonetics, Phonology and Morphology*, 19(1), 33-52.
1. **Song, J. (2011).** The interlanguage speech intelligibility benefit for experienced nonnative listeners: perception of English lexical stress produced by Korean native speakers, *Proceedings of the 17th International Congress of Phonetic Sciences (ICPhS 2011)*, Hong Kong.

*corresponding author

Books

1. Kiaer, J. & **Song, J. (2019).** 언어의 아이들: 아이들은 도대체 어떻게 언어를 배울까? [‘How children learn language’], Seoul: Science Books. 세종도서 학술부문 선정

Papers under review

2. **Song, J., Martin, L. & Iverson, P. (under review).** Auditory neural tracking and lexical processing of speech in noise: masker type, spatial location, and language experience
1. Cho, H.J., Kiaer, J., Choi, N. & **Song, J. (under review).** The role of prosodic and contextual information in disambiguating wh-phrases: The case of Korean three-year-olds

Papers in Preparation

1. **Song, J. & Iverson, P.** Development of a Korean sentence materials set for speech perception research. [Expected submission date: May 2020]

Conference Presentations

13. Cho, H.J., Kiaer, J., Choi, N. & **Song, J. (2019).** Young children’s use of prosody and contextual cues in disambiguating wh-specific/indefinite question: The case of Korean, The 14th Generative Approaches to Language Acquisition (GALA), Milan.
12. **Song, J., Martin, L. & Iverson, P. (2019).** Coping with noise at multiple levels: Auditory cortical and lexical effects of maskers for native and non-native listeners, Speech in noise workshop (SpiN), Ghent.
11. **Song, J., Martin, L. & Iverson, P. (2018).** Neural processing of attended speech in multi-talker environments: Effects of talker number and spatial cues, Attention to Sound, Milton Keynes.
10. **Song, J. & Iverson, P. (2018).** Exploring cortical and subcortical responses to continuous speech, Auditory EEG Signal Processing symposium (AESoP), Leuven.
9. **Song, J. & Kiaer, J. (2018).** The role of semantic cues in prosodic disambiguation of wh-phrases in Korean, The 2018 Colloquium of the British Association of Academic Phoneticians (BAAP), Kent.
8. Lee, H-Y. & **Song, J. (2017).** Features for evaluating Korean learners’ English rhythm proficiency, The 5th International Conference on English Pronunciation: Issues & Practices (EPIP5), Caen.

7. **Song, J. & Iverson, P. (2016).** Cross-linguistic perception of continuous speech: Neural entrainment to the speech amplitude envelope, The 172nd meeting of the Acoustical Society of America (ASA 2016 Fall meeting), Hawaii.
6. Iverson, P., Brint, E., **Song, J. & Wu, M. (2016).** Listening effort and accent in competing-talker speech recognition by native and non-native listeners: Electrophysiological measures of auditory and lexical processing, The 172nd meeting of the Acoustical Society of America (ASA 2016 Fall meeting), Hawaii.
5. **Song, J. & Iverson, P. (2016).** An ERP study of speech recognition by native and non-native listeners: The effects of a competing-talker background and accent, The 3rd Conference on Experimental Approaches to Perception and Production of Language Variation (ExAPP 2016), Vienna.
4. **Song, J. & Iverson, P. (2016).** Is cortical entrainment to speech a neural correlate of listening effort?, The 8th Annual Meeting for the Neurobiology of Language (SNL 2016), London.
3. **Song, J. & Iverson, P. (2016).** Speech recognition by native and non-native listeners with a competing-talker background: An ERP study, The 8th International Conference on Second-Language Speech (New Sounds 2016), Aarhus.
2. **Song, J. & Iverson, P. (2016).** The effect of accent on speech recognition in a competing-talker background: Neural oscillations and the N400, Speech Processing in Realistic Environments (SPIRE) workshop, Groningen.
1. **Song, J. (2010).** Durational characteristics of English sentences produced by Korean speakers and their role in the degree of perceived foreign accent, Proceedings of the 2010 Fall Conference of the Korean Society of Speech Sciences, Seoul.

Invited Talks

3. The role of listening effort in second-language speech processing. *The SNU Linguistics Colloquium Series*, Department of Linguistics, Seoul National University, Seoul, South Korea. Dec 3, 2019.
2. Interaction of semantic and prosodic cues in the disambiguation of wh-words in Korean (with J. Kiaer). *Departmental Seminar Series*, Oriental Studies, University of Oxford. Jan 29, 2019.
1. Second language speech processing in realistic environments: an electrophysiological investigation. *The SNU Linguistics Colloquium Series*, Department of Linguistics, Seoul National University, Seoul, South Korea. Sept 4, 2017.

Awards & Grants

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| 2017 - 2020 | Research Grant (named Research Associate)
Economic and Social Research Council, UK
Project: <i>“Listening effort and multilingual speech communication: Neural measures of auditory and lexical processing by adults and older children”</i>
Award Amount: £570,625; PI: Prof. Paul Iverson |
| 2017 | First Place Award in the poster competition (area: Speech Communication)
The 172nd meeting of the Acoustical Society of America 2016 |
| 2013 - 2017 | Kwanjeong Overseas Scholarship (full stipend)
Kwanjeong Educational Foundation, South Korea |
| 2013 - 2016 | Overseas Research Scholarship (full tuition fee waiver)
University College London (UCL) |
| 2010 | Best Presentation Paper Award
The 2010 Fall Conference of the Korean Society of Speech Sciences |
| 2010 | Teaching Assistant Scholarship (1st Semester)
Dept. of Linguistics, Seoul National University (SNU) |
| 2010 | Superior Academic Performance Scholarship (1st Semester)
Dept. of Linguistics, SNU |
| 2009 - 2010 | Graduate Student Scholarship
Woosan Educational Foundation, South Korea |
| 2009 | Lecture & Research Scholarship
Dept. of Linguistics, SNU |
| 2006 - 2007 | Kwanjeong Domestic Scholarship
(one of the two recipients in the College of Humanities)
Kwanjeong Educational Foundation, South Korea |
| 2004 - 2005 | Merit-based Scholarship (full tuition fee waiver), SNU |
| 2004 | Superior Academic Performance Scholarship, SNU (2nd Semester) |

Teaching Experience

Module Development

- 2019 Module: Language Acquisition, Seoul National University
 Role: Providing the module outline and detailed content for lectures, tutorials & assessment

Guest Lecturer

- 2017 - 2020 Module: Second Language Speech Learning (MSc), UCL (Term 2)
 Lecture: Listening effort during second language speech perception
- 2019 Module: Development of Communication and Cognition (BSc), UCL (Term 1)
 Lecture: Using the ERP technique to explore phonological development
- 2018 Module: Development of Speech Perception and Production (MSc), UCL (Term 1)
 Lecture: Speech development in bilingual children
- 2016 Module: Introduction to Speech Sciences (MSc), UCL (Term 1)
 Module: Speech Production and Perception (BSc), UCL (Term 1)
 Lecture: The challenge of speech perception
- 2015 Module: Introduction to Speech Sciences (MSc), UCL (Term 1)
 Lecture: Fricatives and spectrograms

Teaching Assistant

- 2015 - 2017 Module: Introduction to the Event-Related Potential Techniques (MSc, MRes),
 UCL (Term 2)
- 2015 - 2016 Module: Phonetics and Phonology (MSc), UCL (Term 1)
- 2010 Module: World of Languages (Undergraduate), SNU (Spring Semester)
- 2009 Module: Experimental Phonetics (Postgraduate), SNU (Spring Semester)

Electroencephalography (EEG) Demonstrator

- 2015 - 2020 Module: Second-Language Speech Learning (MSc), UCL (Term 2)
- 2020 Module: Development of Speech Perception and Production (MSc), UCL (Term 1)

Student Supervision

- 2018 Supervising master student projects (with Prof Paul Iverson, UCL)
 Minjeong Kim (MA Linguistics), Miguel Garcia Tarifa (MSc Language Sciences)
 Project: Phonetic training under cognitive load

Other Professional Experience

I participated in the following research projects under the supervision of Prof. Ho-Young Lee at SNU.

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| 2011 - 2013 | Researcher, Dept. of Linguistics, SNU
Project: <i>“Building the Korean Learners’ English Accentuation Corpus for Automatic Accent Detection”</i> funded by SK Telecom
Role: Annotating sentence stress, data analysis & writing papers |
| 2008 - 2011 | Researcher, Dept. of Linguistics, SNU
Project: <i>“Modeling of Korean Prosody for HMM-based Spontaneous Speech Synthesis”</i> funded by National Research Foundation of Korea
Role: Annotating Korean intonation using SAIL (Semi-Automatic Intonation Labeling System) |
| 2011 | Researcher, Dept. of Linguistics, SNU
Project: <i>“A Study of Inter-speaker Variability in Emotional Speech for Speaker Identification”</i> funded by the Korean Institute of Forensic Sciences
Role: RA duties including collecting electroglottographic and audio recordings |
| 2009 | Researcher, Dept. of Linguistics, SNU
Project: <i>“Developing English Teaching Robots”</i> funded by Korea Institute of Science and Technology
Role: Developing content for English teaching robots, writing <i>‘Learning English with Robot –Elementary’</i> & other RA duties |
| 2010 | Laboratory Assistant, Phonetics Lab, Dept. of Linguistics, SNU
Role: Setting up recording equipment for students & maintaining equipment and supplies in the lab |

Professional Service

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| 2018 | Organising Speech Science Forum seminars
Dept. of Speech, Hearing & Phonetic Sciences (UCL) |
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Reviewing

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| Journals | <i>Journal of the Acoustical Society of America, Bilingualism: Language and Cognition, Language Learning, Scientific Reports</i> |
| Conferences | The 9th International Symposium on the Acquisition of Second Language Speech
2019, The 19th International Congress of Phonetic Sciences |

Public Engagement

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| 2020 | Event at the Royal Institution: <i>“Easy speaking and effortless listening”</i>
Role: Leading the EEG demo session “EEG for speech perception research” for the general public |
| 2014 | Event at the Royal Institution: <i>“Good listeners and smooth talkers: Spoken communication in a challenging world”</i> (led by Prof. Stuart Rosen, UCL).
Role: EEG demonstration & presenting our research to the general public |

Other Skills

Languages	Korean (Native), English (Fluent), Spanish (Reading knowledge)
Programming	Matlab, R, Praat
Statistics	R, SPSS
EEG Analysis	Fieldtrip, EEG/ERPLab