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RESEARCH INTERESTS

Neural processing of speech, second language speech learning, speech processing in realistic environments, child language acquisition, bilingualism, Korean phonetics

EMPLOYMENT

2017- Present Postdoctoral Research Associate in Dept. of Speech, Hearing and Phonetic Sciences, University College London, London, UK

Project title: "Listening effort and multilingual speech communication: Neural measures of

auditory and lexical processing by adults and older children"

(funded by Economic and Social Research Council)

Principal Investigator: Prof. Paul Iverson

EDUCATION

2013-2018 Jan PhD in Speech, Hearing and Phonetic Sciences, University College London, London,

IJK

Thesis: "The effects of adverse conditions on speech recognition by non-native listeners:

Electrophysiological and behavioural evidence"

Primary Supervisor: Prof. Paul Iverson Secondary Supervisor: Prof. Valerie Hazan

2008-2011 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

2004-2008 BA in Linguistics, Seoul National University, Seoul, South Korea

Summa cum laude

2007 Exchange Programme, Linguistics, The University of Auckland, Auckland, New Zealand

AWARDS & GRANTS (SELECTED)

2017 - 2020 Named postdoctoral researcher for the project "Listening effort and multilingual speech communication: Neural measures of auditory and lexical processing by adults and older Sponsor: Economic and Social Research Council

Award Amount: £570,625

Principal Investigator: Prof. Paul Iverson

Jan 2017 First Place Award in the poster competition at the 172nd meeting of the Acoustical **Society of America 2016** (area: Speech Communication)

Title: "Cross-linguistic perception of continuous speech: Neural entrainment to the speech

amplitude envelope"

2013-2017 Kwanjeong Overseas Scholarship, Kwanjeong Educational Foundation, South Korea (full stipend)

Overseas Research Scholarship, University College London (full tuition fee waiver) 2013-2016

Nov 2010 Best Presentation Paper Award at the 2010 Fall Conference of the Korean Society of

Speech Sciences

2010 Teaching Assistant Scholarship & Superior Academic Performance Scholarship, Dept. of

Linguistics, SNU (1st Semester)

2009-2010 Graduate Student Scholarship, Woosan Educational Foundation, South Korea

2009 Lecture & Research Scholarship, Dept. of Linguistics, SNU

2006-2007 Kwanjeong Domestic Scholarship, Kwanjeong Educational Foundation, South Korea

(one of the two recipients in the College of Humanities)

2004-2005 Merit-based Scholarship, SNU (full tuition fee waiver)

2004 Superior Academic Performance Scholarship, SNU (2nd Semester)

JOURNAL PUBLICATIONS

- 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
- Lee, H-Y. & Song, J.* (2019). Evaluating Korean learners' English rhythm proficiency with measures of sentence stress. Applied Psycholinguistics, 40(6), pp. 1363-1376. (* indicates the corresponding author)
- Song, J. & Iverson, P. (2018). Listening effort during speech perception enhances auditory and lexical processing for non-native listeners and accents, Cognition 179, pp. 163-170.
- 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, pp. 29-
- Song, J. (2013). Variable Schwa Deletion in English: A Corpus Study, Studies in Phonetics, Phonology and Morphology 19(1), pp. 33-52.

BOOKS

Kiaer, J. & Song, J. (2019). 언어의 아이들: 아이들은 도대체 어떻게 언어를 배울까? ['How children learn language'], Seoul: Science Books.

CONFERENCE PRESENTATIONS & PROCEEDINGS

- 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.
- **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.
- **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*, Ghent.
- **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.
- **Song, J.** & Iverson, P. (2018). Exploring cortical and subcortical responses to continuous speech, *Auditory EEG Signal Processing symposium (AESoP)*, Leuven.
- **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.
- 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.
- **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.
- 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.
- **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.
- **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.
- **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.
- **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.
- 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.
- **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.

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

Song, J. & Kiaer, J (Jan 2019). Departmental seminar series at Oriental Studies, University of Oxford Title: Interaction of semantic and prosodic cues in the disambiguation of wh-words in Korean

Song, J. (2017). Colloquium in Dept. of Linguistics at Seoul National University.

Title: Second language speech processing in realistic environments: an electrophysiological investigation

Song, J. (2011). The Joint Seminar on English Phonetics 2011, Seoul.

Title: The intelligibility of English lexical stress produced by Korean native speakers – effects of language experience on second language perception

PROFESSIONAL SERVICE

2018 Organising **Speech Science Forum seminars**, Speech, Hearing & Phonetic Sciences (UCL)

Conference reviewing

The 9th International Symposium on the Acquisition of Second Language Speech 2019

The 19th International Congress of Phonetic Sciences (ICPhS 2019)

Ad hoc journal reviewing

The Journal of the Acoustical Society of America

Bilingualism: Language and Cognition

Language Learning

TEACHING EXPERIENCE

2018 Supervising master student projects (with Prof Paul Iverson).

Minjeong Kim (MA Linguistics) & Miguel Garcia Tarifa (MSc Language Sciences), Project:

Phonetic training under cognitive load

2019 Guest Lecturer, Module: Development of Communication and Cognition (BSc), UCL

(Term 1)

Role: Lecture on "Using the ERP technique to explore phonological development"

2018 Guest Lecturer, Module: Development of speech perception and production (MSc), UCL

(Term 1)

Role: Lecture on "Speech development in bilingual children"

2017 - 2019 Guest Lecturer, Module: Second language speech learning (MSc), UCL (Term 2)

Role: Lecture on "Listening effort during second language speech perception"

2016 Guest Lecturer, Module: Introduction to Speech Sciences (MSc), UCL (Term 1)

Role: Lecture on "The challenge of speech perception" & tutorial on "Spectrographic

analysis of vowels & consonants"

2016 Guest Lecturer, Module: Speech production and perception (BSc), UCL (Term 1)

Role: Lecture on "The challenge of speech perception"

2015 Guest Lecturer, Module: Introduction to Speech Sciences (MSc), UCL (Term 1)

Role: Lecture on "Fricatives and spectrograms" & tutorial on "Spectrographic analysis of

fricatives"

2015-2017 **Teaching Assistant** for Dr. Jyrki Tuomainen

Module: Introduction to the Event-Related Potential Techniques (MSc & MRes), UCL

(Term 2)

Role: Assisting in the delivery of lab sessions, delivering a lab session on 'Time-frequency analysis in EEG', marking essays, EEG demonstration & supervising EEG data collection

2015-2016 **Teaching Assistant** for Dr. Bronwen Evans

Module: Phonetics and Phonology (MSc), UCL (Term 1)

Role: Assisting in the delivery of ear training sessions, delivering tutorials & examining

phonetics oral exams

2015-2019 **EEG (Electroencephalography) demonstrator**

Module: Second-Language Speech Learning (MSc), UCL (Term 2), Second-Language Speech Learning (MSc), UCL (Term 2); Development of speech perception and production

(MSc), UCL (Term 1)

Role: Demonstrating how to set up EEG experiments, handle equipment and record clean

EEG data

2009-2010 **Teaching Assistant** for Prof. Ho-Young Lee

Module: World of Languages (Undergraduate), SNU (1st Semester, 2010)

Module: Experimental Phonetics (Postgraduate), SNU (1st Semester, 2009)

Role: Marking exams, teaching students how to make audio recordings of speech &

providing technical support in lectures

2009-2010 **Mentor & English Teacher** in Saessak Mentoring Programme for high school students,

Saessak Scholarship Foundation

OTHER PROFESSIONAL EXPERIENCE

2011-2013 Researcher

Project: "Building the Korean Learners' English Accentuation Corpus (KLEAC) for Automatic Accent Detection" funded by SK Telecom (supervised by Prof. Ho-Young Lee,

Co-Investigator)

Role: Contributing to various aspects of the project including annotating sentence stress,

data analysis & writing papers

2011 Researcher

Project: "A Study of Inter-speaker Variability in Emotional Speech for Speaker Identification" funded by the Korean Institute of Forensic Sciences (Principal Investigator: Prof. Ho-Young

Lee)

Role: Collecting electroglottographic and audio recordings & subject recruitment

2010 Laboratory Assistant, Phonetics Lab, Dept. of Linguistics, SNU

Role: Setting up recording equipment for students & maintaining equipment and supplies

in the lab

2009 Researcher

Project: "Developing English Teaching Robots" funded by Korea Institute of Science and

Technology (supervised by Prof. Ho-Young Lee, Co-Investigator)

Role: Developing content for English teaching robots, writing the book 'Learning English

with Robot -Elementary' & other RA duties such as assisting with workshops

2008-2011 Researcher

Project: "Modeling of Korean Prosody for HMM-based Spontaneous Speech Synthesis" funded by National Research Foundation of Korea (supervised by Prof. Ho-Young Lee,

Co-Investigator)

Role: Annotating Korean prosody using SAIL (Semi-Automatic Intonation Labeling System)

PUBLIC ENGAGEMENTS

2014 Event at the Royal Institution: "Good listeners and smooth talkers: Spoken communication

in a challenging world" (led by Prof. Stuart Rosen, UCL).

Role: EEG demonstration & presenting our research to the general public

LANGUAGES

Korean (Native), English (Fluent), Spanish (Reading knowledge)

OTHER SKILLS

Statistics: R, SPSS

Programming languages: Matlab, R, Praat EEG Analysis: Fieldtrip, EEG/ERPLab, SPM