

Curriculum Vitae

XIN XIE

Department of Brain and Cognitive Sciences
University of Rochester
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RESEARCH INTERESTS

Speech perception and production, neural correlates of spoken language processing, perceptual learning (and disorders), native and non-native speech communication, language plasticity, computational modeling, language acquisition, bilingualism, voice perception

EDUCATION

- Summer 2017 Kavli Summer Institute in Cognitive Neuroscience, UC Santa Barbara, Santa Barbara, CA.
- 2009-2015 Ph.D. in Psychology (Language & Cognition Concentration), University of Connecticut
Advisors: Emily Myers and Carol Fowler
Dissertation: “Phonetic adaptation to foreign-accented speech”
Committee: Emily Myers (chair), Carol Fowler, James Magnuson, Rachel Theodore
- 2005-2009 B.S.E. in Systems Science and Engineering, Zhejiang University, China

RESEARCH POSITIONS

- 2016-present Postdoctoral Associate. University of Rochester, Department of Brain and Cognitive Sciences. PI: Florian Jaeger.
- 2015-2016 Postdoctoral Researcher. University of Connecticut, Department of Speech, Language and Hearing Sciences. PI: Emily Myers.

PEER-REVIEWED PUBLICATIONS

- Xie, X. & Myers, E. B. (accepted for publication). [LIFG sensitivity to phonetic competition in receptive language processing: a comparison of clear and conversational speech.](#)
Journal of Cognitive Neuroscience.

- Xie, X.**, Weatherholtz, K., Bainton, L., Rowe, E., Burchill, Z., Liu, L., & Jaeger, T. F. (under revision). Rapid adaptation to foreign-accented speech and its limits. *Journal of the Acoustical Society of America*.
- Xie, X.**, Earle, F. S. & Myers, E. B. (2017). [Sleep facilitates generalization of accent adaptation to a new talker](#). *Language, Cognition and Neuroscience*, 1-15.
- Xie, X.**, & Myers, E. B. (2017). [Learning a talker or learning an accent: Acoustic similarity constrains generalization of foreign accent adaptation to new talkers](#). *Journal of Memory and Language*, 97, 30-46.
- Xie, X.**, Theodore, R.M., & Myers, E. B. (2017). [More than a boundary shift: perceptual adaptation to foreign-accented speech reshapes internal structure of phonetic categories](#). *Journal of Experimental Psychology: Human Perception and Performance*, 43, 206 - 217.
- Xie, X.** & Myers, E. B. (2015). [The impact of musical training and tone language experience on talker identification](#). *Journal of the Acoustical Society of America*, 137, 419-432.
- Xie, X.**, & Myers, E. B. (2015). [General language ability predicts talker identification](#). In Noelle, D. C., Dale, R., Warlaumont, A. S., Yoshimi, J., Matlock, T., Jennings, C. D., & Maglio, P. P. (Eds.), *Proceedings of the 37th Annual Meeting of the Cognitive Science Society*, (pp. 2697-2702). Austin, TX: Cognitive Science Society.
- Xie, X.** & Fowler, C. A. (2013). [Listening with a foreign-accent: The interlanguage speech intelligibility benefit in Mandarin speakers of English](#). *Journal of Phonetics*, 41, 369-378.

BOOK CHAPTERS

- Myers, E., Johns, A.R., Earle, F.S., and **Xie, X.** (2017). [Invariance problem in the acquisition of non-native phonetic contrasts: from instances to categories](#). In Lahiri, A. and S. Kotzor (Eds.). *The Speech Processing Lexicon: Neurocognitive and Behavioural Approaches* (pp. 52-84). Berlin: De Gruyter/Mouton.
- Fowler, C. A., & **Xie, X.** (2016). [Involvement of the speech motor system in speech perception](#). In P. van Lieshout, B. Maassen, and H. Terband (Eds.). *Speech motor control in normal and disordered speech: Future developments in theory and methodology* (pp. 1-24). Rockville, MD: ASHA Press.

MANUSCRIPTS IN PREPARATION

- * indicates manuscripts prepared with mentored students
- Xie, X.**, & Myers, E. B. (in preparation). Consistency matters: Effects of within-talker acoustic variability on rapid learning of foreign accents.
- Xie, X.**, & Myers, E. B. (in preparation). Contextual information aids perceptual adaptation to speakers of low intelligibility.
- Xie, X.**, Myers, E. B., Magnuson, J. S., Mencl, W. E., Irwin, J. R., Brancazio, L., & Rueckl, J. (in preparation). Encoding articulator information in the brain during speech perception.
- Liu, L., **Xie, X.**, Weatherholtz, K., & Jaeger, T. F. (in preparation). Adaptation and generalization to foreign-accented speech.

Xie, X., *Oey, L., *Lee, C., *Simon, E., & Jaeger, T. F. (in preparation). The robustness of adaptation to foreign-accented speech.

Xie, X., Liu, L., & Jaeger, T. F. (in preparation). Learning to understand foreign accents: Adaptation and generalization as inference under uncertainty.

CONFERENCE PRESENTATIONS

* indicates presentations completed with mentored students

Xie, X., Myers, E. B. (November, 2017). Inferior frontal gyrus activation is modulated by phonetic competition: An fMRI study of clear and conversational speech. Poster to be presented at *The Ninth Annual Meeting of the Society for the Neurobiology of Language*. Baltimore, ML.

Rothermich, K., Saltzman, D., **Xie, X.,** Myers, E. B. (September, 2017). Sensitivity to phonetic competition in people with aphasia. Poster presented at *12th annual Eleanor M. Saffran Conference on Cognitive Neuroscience and Rehabilitation of Communication Disorders*. Philadelphia, PA.

Xie, X., Myers, E. B. (September, 2017). Inferior frontal gyrus activation is modulated by phonetic competition: An fMRI study of clear and conversational speech. Talk presented at *The 23rd Architectures and Mechanisms for Language Processing*. Lancaster, United Kingdom.

*Oey, L., *Lee, C., *Simon, E., **Xie, X.,** & Jaeger, T. F. (September, 2017). Talker generalization of accent adaptation: Questioning its robustness. Poster presented at *The 23rd Architectures and Mechanisms for Language Processing*. Lancaster, United Kingdom.

*Lee, C., *Oey, L., *Simon, E., **Xie, X.,** & Jaeger, T. F. (September, 2017). An investigation into audio perception studies on Amazon Mechanical Turk. Poster presented at *The 23rd Architectures and Mechanisms for Language Processing*. Lancaster, United Kingdom.

Jaeger, T. F., Kleinschmidt, D., Liu, L., & **Xie, X.** (September, 2017). Understanding accents and dialects: Speech perception as inference under uncertainty. Talk presented at *The 20th Conference of the European Society for Cognitive Psychology (ESCoP)*. Potsdam, Germany.

Liu, L., **Xie, X.,** Weatherholtz, K., & Jaeger, T. F. (March, 2017). Talk presented at *The 30th Annual CUNY Conference on Human Sentence Processing*. Cambridge, MA.

Xie, X., Myers, E. B. (December, 2016). Sleep facilitates talker generalization of accent adaptation. Poster presented at *The 172nd Annual Meeting of the Acoustical Society of America*. Honolulu, HI.

Xie, X., *Fisher, R., *Patel, D., & Myers, E. B. (April, 2016). Talker similarity guides accent adaptation and its generalization. Poster presented at *The Sixth Annual UCONN Language Fest*. Storrs, CT.

Xie, X., Myers, E. B. (March, 2016). Learning a talker or learning an accent? Cross-talker generalization of phonetic adjustment to foreign-accented speech. Poster presented at *The 29th Annual CUNY Conference on Human Sentence Processing*. Gainesville, FL.

- Xie, X.,** Theodore, R. M., Myers, E. B. (November, 2015). Perceptual adaptation to foreign-accented speech reshapes the internal structure of phonetic categories. Poster presented at *The 56th Annual Meeting of the Psychonomic Society*. Chicago, IL.
- Xie, X.,** & Myers, E. B. (July, 2015). General language ability predicts talker identification. Poster presented at *The 37th Annual Meeting of the Cognitive Science Society*. Pasadena, CA.
- Xie, X.,** *Patel, D., *Bugden, J., & Myers, E. B. (April, 2015). Effects of intra-talker variability on adaptation to foreign accents. Poster presented at *The Fifth Annual UCONN Language Fest*. Storrs, CT.
- Xie, X.,** *Bugden, J., *Patel, D., & Myers, E. B. (April, 2015). Adaptation to a talker to adaptation to an accent. Poster presented at *The Fifth Annual UCONN Language Fest*. Storrs, CT.
- Xie, X.** & Myers, E. B. (November, 2014). Individual differences in talker identification: Do musical experience and linguistic background matter? Poster presented at *The 55th Annual Meeting of the Psychonomic Society*. Long beach, CA.
- Xie, X.** & Myers, E. B. (September, 2013). The role of language and musical experience in talker identification: investigating language familiarity effect. Poster presented at *The 19th International Conference of Architectures and Mechanisms for Language Processing (AMLaP)*, 2013). Marseille, France.
- Xie, X.** & Fowler, C. A. (July, 2013). Listening with a foreign-accent: The interlanguage speech intelligibility benefit in Mandarin speakers of English. Poster presented at *Linguistic Society of America, Summer Institute 2013 Workshop: How the brain accommodates variability in linguistic representations*. Ann Arbor, MI.
- Xie, X.,** *Ciullo, B. & Myers, E. B. (April, 2013). Individual differences in pitch perception and phonetic perception and their contribution to talker identification. Poster presented at *The Fourth Annual UCONN Language Fest*. Storrs, CT.
- Xie, X.,** *Ragonesi, M. & Myers, E. B. (April, 2013). The role of language and musical experience in talker identification: investigating language familiarity effect. Poster presented at *The Fourth Annual UCONN Language Fest*. Storrs, CT.

INVITED TALKS

The adaptive road to robust speech recognition: How do we accommodate phonetic variation in speech? *Department of Linguistics, University of California, Davis. January 2017.*

Encoding articulator information in the brain during speech perception. *Alvin and Isabelle Liberman Memorial Workshop, University of Connecticut, June 2016.*

Phonetic adaptation to foreign accents. *Department of Speech, Language and Hearing Sciences, Boston University, December 2015.*

Phonetic adaptation to foreign accents. *Bilingualism and Psycholinguistics Research Group, Northwestern University, October 2015.*

HONORS & AWARDS

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| 2017 | Fellow, Kavli Summer Institute in Cognitive Neuroscience, UC Santa Barbara |
| 2015 | Psychonomic Society Graduate Student Travel Award, Psychonomic Society |
| 2014 | Doctoral Dissertation Fellowship: Graduate School, University of Connecticut |
| 2013 | Conference Travel Grant: Graduate School, University of Connecticut |
| 2013 | Student Travel Award: LSA 13 workshop <i>"How the brain accommodates variability in linguistic representations"</i> |
| 2009-2015 | Graduate Scholarship: Department of Psychology, University of Connecticut |
| 2009 | Award for Excellence in Undergraduate Thesis, Zhejiang University |

TEACHING & MENTORING EXPERIENCE

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| 2012-2017 | Research Mentor, 14 Undergraduates Mentored undergraduate students who were research assistants, conducting independent study projects and/or completing honors theses. Taught experimental design, acoustic manipulation and analysis techniques, statistical analyses and other aspects of training in conducting research. |
| Fall 2017 | Co-instructor, Language & Psycholinguistics Gave lectures (~100 students), designed course materials |
| Spring 2015 | Coordinator, Language & Cognition Seminar Coordinated seminar talks |
| Spring 2015 | Teaching Assistant, Psychology of Language Held office hours, graded exams, papers and assignments |
| Spring 2014 | Instructor of Record, Psychology of Language Gave lectures (~50 students), designed course materials, wrote and graded exams |
| 2010-2013 | Lab Instructor, Principles of Research in Psychology Gave weekly lectures (~12-14 students), mentored group research projects, held office hours, graded papers and assignments, assisted student poster presentation at a department-level research event |
| 2009-2010 | Lab Instructor, General Psychology I Gave weekly lectures (~20-25 students), held office hours, wrote/graded assignments |
| Fall 2009 | Teaching Assistant, General Psychology I; Cognitive Psychology Graded exams and assignments, prepared materials for online mini-experiments |

PROFESSIONAL SERVICE & MEMBERSHIPS

Ad-Hoc Reviewer:

Attention, Perception, & Psychophysics
Cognition
Cognitive Science Society Annual Conference
Journal of the Acoustical Society of America
Journal of Experimental Psychology: Human Perception and Performance
Journal of Experimental Psychology: Learning, Memory, & Cognition
Journal of Speech, Language and Hearing Research
Psychonomic Bulletin & Review
Laboratory Phonology
Language Learning
Language and Speech
Linguistics Vanguard
The Quarterly Journal of Experimental Psychology

Memberships:

Society for the Neurobiology of Language
The Acoustical Society of America
Association for Laboratory Phonology
Psychonomic Society
International Speech Communication Association
Women in Cognitive Science

LANGUAGES

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|-------------------------|--------------------------------------|
| Mandarin | Native |
| English | Proficient |
| Cantonese | Proficient |
| Japanese/Spanish/French | Basic speaking and reading knowledge |