

Curriculum Vitae
Jennifer T. Legault
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Research Interests

Neuroimaging, Second language acquisition and processing, Learning and memory

Educational Degrees

Ph.D Candidate in Neuroscience The Pennsylvania State University Supervisor: Dr. Ping Li, Professor of Psychology, Linguistics, and Information Sciences and Technology	2012-present
Master Degree of Science-Neuroscience Tulane University of Louisiana Supervisor: Dr. Harry Howard, Associate Professor of Theoretical Linguistics	2010-2011
Bachelor Degree of Science-Neuroscience Tulane University of Louisiana Minor in Studio Art	2007-2010

Publications

Grant, A., **Legault, J.**, & Li, P. (in press). What do bilingual models tell us about the neurocognition of multiple languages? In Schwieter, J.W.(Ed). *The Handbook of the Neuroscience of Multilingualism*.

Li, P., Chaby, L. E., **Legault, J.**, & Braithwaite, V. A. (2015). *Brain 3M--A New Approach to Learning about Brain, Behavior, and Cognition*. International Association for the Development of the Information Society.

Lan, Y., Fang, S., **Legault, J.**, Li, Ping. (2015). Second language acquisition of Mandarin Chinese vocabulary: Context of learning effects. *Educational Technology Research & Development*, 63, 5, 671-690.

Li, P., **Legault, J.**, & Litcofsky, K. A. (2014). Neuroplasticity as a function of second language learning: Anatomical changes in the human brain. *Cortex*, 58, 301-324.

Feng, S., **Legault, J.**, Yang, L., Zhu, J., Shao, K., & Yang, Y. (2014). Differences in grammatical processing strategies for active and passive sentences: An fMRI study. *Journal of Neurolinguistics*, 33, 104-117.

Manuscripts submitted or in preparation

Legault, J., Fang, S., Lan, Y., Li, P. (2018). Structural Brain Changes as a Function of Second Language Vocabulary Training: Effects of Learning Context. *Brain and Cognition* (pending revision)

Legault, J., Grant, A., Fang, S., Li, P. (2018). How individual differences mediate structural brain changes during second language learning (submitted).

Legault, J., Zhao, J., Chi, Y-A., Chen, W., Klippel, A., Li, P. (2018). Using virtual reality platforms to instruct second language vocabulary (in prep).

Grants and Awards

Outstanding Student Leadership Award	2016
Center for Brain, Behavior, and Cognition Travel Award	2016
Graduate Advisor to the Huck Institutes Fellowship	2015-2016
J. Lloyd Huck Graduate Dissertation Research Award	2014
Supplemental Educational Opportunity Grant (SEOG)	2010-2011
Distinguished Scholars Award	2007-2010
Phi Theta Kappa Achievement Award	2006-2007

Conference Presentations

Legault, J., Zhao, J., Klippel, A., Li, P. Virtual Reality as an Effective Tool to Train Second Language Vocabulary. Poster presented at the International Workshop on Advanced Learning Sciences, June 2018.

Legault, J., Zhao, J., Chi, Y-A., Chen, W., Klippel, A., Li, P. Enhancing Second Language Vocabulary Learning with Virtual Reality. Poster presented at the Thinking from Within Symposium, December 2, 2017.

Legault, J., Grant, A., Fang, S., Li, P. (2017). Individual Difference-Related Neuroplasticity during Second Language Training. Poster presented at the Society for Neurobiology of Language, November 8, 2017.

Legault, J., Fang, S-Y., Lan, Y-J., Li, P. Effects of Learning Context on Neuroplasticity during Second Language Vocabulary Training. Poster presented at the Connecting Language, Interaction and Education in Digital Environments Workshop, September 27, 2017.

Legault, J., Fang, S-Y., Ahmed, Y., Lan, Y-J., Li, P. Cortical Thickness Changes with Short-term Second Language Vocabulary Learning. Poster presented at the Society for Neurobiology of Language, August 18, 2016.

Legault, J., Litcofsky, K.A., Li, P. Structural Brain Correlates of Mathematical Processing in Bilinguals. Poster presented at the Cognitive Neuroscience Society conference, April 2016.

Legault, J., Fang, S., Lan, Y., Li, P. Gray Matter Changes as a Function of Second Language Vocabulary Learning. Poster presented at the Cognitive Neuroscience Society conference, March 30, 2015.

Scherf, S., **Legault, J.,** Turney, I., Elbich, D., Minshew, N., Berhmann, M. Axial Diffusivity in the ILF and IFOF is Related to Autism Symptom Severity. Poster presented at the Vision Sciences Society, March 27, 2015.

Legault, J., Fang, S., Wang, S., Lan, Y., Li, P. Functional and Anatomical Changes in Second Language Learning. Poster presented at the Society for the Neurobiology of Language, September 28, 2014.

Teaching Experience

Course instructor for Psych 260: Neurological Bases of Human Behavior	Spring 2017- Fall 2017
TA for Psych 260: Neurological Bases of Human Behavior	Fall 2016
Invited Instructor: Functional MRI Analyses of Second Language Learning	Spring 2015
TA and Lab instructor for Psych 301W-Basic Research Methods in Psychology	Fall 2013 - Spring 2015

Invited Talks

Legault, J. (August, 2015). Structural MRI Analyses. Collaborative Innovation Center for Language Ability, Jiangsu Normal University, China.

Lab Experience

The Pennsylvania State University	2012 –
Graduate Researcher: Brain, Language, and Computation Lab	present

Main Projects:

- Comparison of virtual environment and picture-word Chinese vocabulary training
 - Aided in behavioral, sMRI, and fMRI data collection, analyses, and manuscript writing
 - Resulted in 2 publications (1 accepted, 1 pending revision)
- Individual differences that mediate intermediate Spanish classroom training-related brain structure changes
 - Led sMRI data analyses, sMRI-fMRI concordance analyses, and manuscript writing
 - Resulted in 1 publication (submitted, in review)
- Functional and Structural Neural Correlates of Mathematical Processing in Bilinguals
 - Led sMRI and fMRI analyses
 - Resulted in 1 scientific poster presentation
- Review of structural brain changes associated with second language experience
 - Resulted in 1 highly cited review publication
- Comparison of online Brain3M platform to classroom Training
 - Aided in grant writing, study design, and manuscript writing, led making of study materials, data collection and data analyses
 - Resulted in 1 conference paper publication and multiple outreach opportunities
- Comparison of virtual reality versus word-word association second language training
 - Aided in grant writing and study design, led data collection, data analyses, and manuscript writing for behavioral study

- Leading sMRI and fMRI data collection, analyses, and manuscript writing for multimodal MRI study
- Resulted in 1 poster and 1 publication (in prep for special issue)
- Comparison of high immersive virtual reality and low immersive virtual environment neuroanatomy learning
 - Aided in grant writing and study design, leading data collection, data analyses, and manuscript writing

Tulane University of Louisiana
 Graduate Researcher: Human Language Technology Lab 2010-2011

Manuscript Reviewer

Journal of Neurolinguistics	Summer 2016
Brain Structure and Function	Spring 2016
Journal of Neurolinguistics	Spring 2015
Journal of Neurolinguistics	Fall 2014

Administrative Experience

Resident Advisor: Josephine Louise Hall Dormitory at Tulane University 2008-2011

Service

Co-President of the Life Science Symposium	2016-2017
Chair of the Huck Graduate Student Advisory Committee	2015-present
Vice President of NSS-Neuroscience Student Society at PSU	2014-2015
Co-Coordinator of the student Center for Brain, Behavior, and Cognition group	2013- present
Co-editor of the Neuroscience Newsletter	2013- present

Membership in Professional Societies and Organizations

The Cognitive Neuroscience Society	2015- present
The Society for Neurobiology of Language	2014-present
The Center for Language Science	2014-present
Psi Chi-International Honor Society in Psychology	2013- present

Languages

English	Native
French	Native