

Xiaoping Fang

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Current Position

2019 – present Post-doctoral Fellow, Department of Psychology, University of Toronto
Advisors: Katherine Duncan & Margaret Schlichting

Education

2019 PhD in Psychology, Department of Psychology, University of Pittsburgh; Center for Neural Basis of Cognition
Advisor: Charles A. Perfetti

2013 M.S. in Psychology, School of Brain and Cognitive Sciences, Beijing Normal University
Advisor: Youyi Liu

2010 B.S. in Psychology, School of Psychology, Beijing Normal University
Advisor: Youyi Liu

Technical skills

Neuroimaging: EEG (ERP, time-frequency analysis; EEGLAB, EP_Toolkit, NetStation), fMRI (GLM, PPI; AFNI/SUMA), MEG (ERF, time-frequency analysis, source localization; MNE-Python)

Statistical (R): linear mixed effects modeling (lme4), non-parametric analysis

Other: E-Prime, Amazon Mechanical Turk and Qualtrics (stimulus norming and online experiments), linguistic corpora and databases

Awards, Fellowships, and Scholarships

2018 Andrew Mellon Predoctoral Fellowship, University of Pittsburgh

2017 Travel Awards, Society for the Neurobiology of Language (SNL)

2016/2018 The Graduate and Professional Student Government Travel Grant, University of Pittsburgh

2015 Multimodal Neuroimaging Training Program (MNTP) Summer Fellowship, Center for Neural Basis of Cognition

2014/2015 The Arts & Science Graduate Student Organization Travel Grant, University of Pittsburgh

2013 – 2017 Scholarship of China Scholarship Council

2013 Excellent Graduate of Beijing

2010 – 2013 Graduate Student Fellowship, Beijing Normal University

2010 Excellent Undergraduate Thesis Awards, Beijing Normal University

2007/2008/2009 Awards to Students with Excellent Academic Records, Beijing Normal University

Journal Articles

Chen, L., Perfetti, C., **Fang, X.**, Chang, L., & Fraundorf, S. (2019). Reading Pinyin implicitly activates

- character orthography for skilled Chinese readers. *Language, Cognition and Neuroscience*, 36 (6): 736-746.
- Fang, X.**, & Perfetti, C. (2019). Learning new meanings for known words: Perturbation of original meanings and retention of new meanings. *Memory & Cognition*, 47(1): 130-144.
- Bruett, H., **Fang, X.**, Kamarah, D. C., Haley, E., & Coutanche, M, N. (2018). Expertise moderates incidentally learned associations between words and images. *Frontiers in Psychology*, 9, 2085.
- Fang, X.** & Perfetti, C. (2017). Perturbation of old knowledge precedes integration of new knowledge. *Neuropsychologia*, 99: 270-278.
- Chen, L., **Fang, X.**, & Perfetti, C. (2017). Multi-level text integration in Chinese reading comprehension. *Journal of Neurolinguistics*, 42: 83-92.
- Fang, X.**, Perfetti, C., & Stafura, J. (2017). Learning new meanings for known words: Biphasic effects of prior knowledge. *Language, Cognition and Neuroscience*, 32, 637-649.
- Yang, J., Li, P., **Fang, X.**, Shu, H., Liu, Y., & Chen, L. (2016). Hemispheric involvement in the processing of Chinese idioms: An fMRI study. *Neuropsychologia*, 87: 12-24.
- Jia G., Liu Y., Shu H., & **Fang, X.** (2013). The role of noun animacy in language processing. *Advances in Psychological Science*, 21(8): 1371-1381.
- Fang, X.**, & Liu, Y. (2012). The brain basis of syntactic processing during language comprehension. *Advances in Psychological Science*, 20(12): 1940-1951.

Conference Proceedings

- Wu, Q., **Fang, X.**, Chen, Q, Li, Y., & Deng, Y. (2012). The learning of morphological principles: A statistical learning study on a system of artificial scripts. *Advances in Automation and Robotics, Vol.1*. G. Lee, Springer Berlin Heidelberg. 122: 187-196.
- Zhao, X., Li, P., Liu, Y., **Fang, X.**, & Shu, H. (2011). Cross-language priming in Chinese-English bilinguals with different second language proficiency levels. *Proceedings of the 33rd Annual Meeting of the Cognitive Science Society*, Boston, Massachusetts.

Conferences Posters

- Fang, X.**, & Perfetti, C. (2018). ERP evidence for rapid meaning access to newly learned words. *Poster at the 10th Annual Meeting of the Society for the Neurobiology of Language*, Québec City, Québec.
- Fang, X.**, & Perfetti, C. (2017). Brain oscillation signatures of learning new meanings for known words and novel words. *Poster at the 9th Annual Meeting of the Society for the Neurobiology of Language*, Baltimore, MD.
- Chen, L., Perfetti, C., & **Fang, X.** (2016). The character is the gateway to meaning even when Chinese read pinyin. *Poster at the 56th Annual Meeting of the Psychonomic Society*, Boston, MA.
- Fang, X.**, & Perfetti, C. (2016). Tracking the learning of new meanings for novel words and known words. *Poster at the 8th Annual Meeting of the Society for the Neurobiology of Language*, London.
- Chen, L., **Fang, X.**, Perfetti, C., & Xu, G. (2016). Multiple-level integration in Chinese reading comprehension: Morpheme, word and text. *Poster at the 23rd Annual Meeting of Society for the Scientific Studies of Reading*, Porto.
- Fang, X.**, & Perfetti, C. (2015). ERP evidence for dynamic updating of word knowledge. *Poster at the 7th*

Annual Meeting of the Society for the Neurobiology of Language, Chicago, IL.

Fang, X. & Perfetti, C. (2015). The role of word familiarity in learning new meanings for known words. *Poster at the 22nd Annual Meeting of the Society for Scientific Studies of Reading*, Big Island, HI.

Chen, L., Perfetti, C., **Fang, X.**, & Chang, L. Y. (2015). The sub-lexical radicals processing during Pinyin identification. *Poster at the 22nd Annual Meeting of Society for the Scientific Study of Reading*, Big Island, HI.

Fang, X., Liu Y. & Perfetti, C. (2014). Who or whom? The role of left angular gyrus in thematic processing. *Poster at the 20th Annual Meeting of the Organization for Human Brain Mapping*, Hamburg.

Liu, Y., Yang, J., **Fang, X.**, Li, P. & Shu, H. (2012). The role of right hemisphere in the processing of Chinese idioms: An fMRI study. *Poster at the 18th Annual Meeting of the Organization for Human Brain Mapping*, Beijing.

Talks

Fang, X. (2019). Adding new meanings to known words: Interactions between new and prior knowledge. Invited talk in the Department of Psychology, University of Toronto.

Fang, X., & Perfetti, C. (2019). ERP evidence for rapid meaning access to newly learned words. *Symposium talk at the 2019 Biennial Meeting of the Society for Research in Child Development*, Baltimore, MD.

Fang, X., & Perfetti, C. (2018). Learning new meanings for known words: Bidirectional interaction of new and prior word knowledge. *Symposium talk at the 6th International Workshop on Advanced Learning Sciences*, Pittsburgh, PA.

Perfetti, C. & **Fang, X.** (2018). Learning new meanings for words that already have meanings. *Symposium talk at the 2018 International Meeting of the Psychonomic Society*, Amsterdam, the Netherlands.

Manuscripts in Progress

Fang, X., & Perfetti, C. Integrating new word knowledge into an “old” lexical network.

Fang, X., & Perfetti, C. ERP evidence for the meaning access of newly learned words.

Fang, X., & Perfetti, C. Brain oscillation signatures of learning new meanings for known words and novel words.

Fang, X., & Perfetti, C. Learning new meanings for known words: The role of overnight consolidation.

Research Experience

Aug. 2013 -- Present	Graduate student researcher, Learning Research and Development Center, University of Pittsburgh (Advisor: Charles Perfetti) Projects: word learning, word-to-text integration, pinyin processing
Sept. 2009 – Jul. 2013	Undergraduate/graduate Student Researcher, School of Brain and Cognitive Sciences, Beijing Normal University (Advisor: Youyi Liu) Projects: sentence comprehension, figurative language comprehension
Mar. 2009– Dec. 2009	Undergraduate Student Researcher, Institute of Psychology, Chinese Academy of Sciences (Advisor: Yuan Deng) Project: statistical learning

Neuroimaging Workshops (As trainee)

Mar. 2019	MNE Python Training Course (three days)
Nov. 2016	The 22 nd EEGLAB workshop (four days)
Jun. – Jul. 2015	Multiple-modal Neuroimaging Training Program (six weeks) MEG modality Project: Source Localization in MEG: Dipole vs. Distributed Model (with Deepa Krishnaswamy, instructor: Erika Laing)
Jun. 2012	AFNI Training Workshop on the Analysis of Brain Imaging Data (five days) AFNI/SUMA

Internal Grant

2017	MEG seed funds, University of Pittsburgh Medical Center, Brain Mapping Center (10,000 USD/20 MEG hours) PI: Adding new meanings to known words by tuning neural representation
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Ad Hoc Review

Cognitive, Affective, & Behavioral Neuroscience; Journal of Experimental Psychology: Learning, Memory, and Cognition; Language Learning; Neuropsychologia

Mentoring

Independent research: Joseph Jaros (Summer2018/Fall2018/Spring2019)

Directed research: Alexia Cardiges (Fall2018/Spring2019), Logan Ondos (Fall2018/Spring2019), Joseph Jaros (Fall2017- Spring2018), Maria Sanin-Guaría (Summer2016), Andrew Rosse (Spring2016)

First-experience in research: Alyssa Medwynter (Spring2019), Logan Ondos (Spring2018), Joseph Jaros (Spring2017), Madeline Kulp (Spring2016), Hannah Famili (Spring2015)

Summer intern: Sarah DiMuccio (Summer2014, through Pittsburgh Science Learning Center)

Teaching

Fall2017/Summer2018	Research Methods Lab, Department of Psychology, University of Pittsburgh Instructor (lecturing, guiding student projects, grading student papers and homework, holding office hours)
Spring 2012	Research Methods in Psychology, School of Psychology, Beijing Normal University Teaching Assistant (with Hua Shu, guiding student projects, grading exams and homework, holding office hours)

Service

2015 –2016	Colloquium Committee, Center for Neural Basis of Cognition
2015 – 2016	Organizer, Reading and Language Group meetings

Professional Membership

Society for Neurobiology of Language (2015 – Present), Society for Scientific Studies of Reading (2015), Organization for Human Brain Mapping (2012/2014)