Benjamin Zinszer

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Employment

2018 - present	Technical Director, Multimodal Neuroimaging Initiative
	University of Texas at Austin
2017	Research Associate, SoundBrain Lab
	Department of Communication Sciences and Disorders, University of Texas at Austin
2014-17	Postdoctoral Associate, Rochester Baby Lab & Raizada Lab
	Department of Brain and Cognitive Sciences, University of Rochester

Education

2014	Ph.D., Psychology, Pennsylvania State University
2014	M.A.S., Applied Statistics, Pennsylvania State University
2012	M.S., Psychology, Pennsylvania State University
2008	B.A., Psychology, Wheaton College (IL)

Fellowships & Grant Funding

Under review	NIH NIDCD R21 – *Continuous speech processing in normal aging and primary progressive aphasia*
Under review	ConTex Collaboration Grant, University of Texas & CONACYT – *Portable brain imaging for measuring language knowledge in speakers of Spanish and English*
2018-	Open Project Grant, Beijing Normal University – *Effects of immersion and aging on continuous speech encoding of L1 and L2 in Chinese-English bilinguals* – *$14,000*
2013-14	Pennsylvania Space Grant Consortium Graduate Fellow – *$10,000*
2012	NSF East Asia and Pacific Summer Institutes Fellow to Beijing, China
2012	Confucius Institute Scholarship – *$1000*
2011	Center for Language Science PIRE Graduate Fellow to Beijing, China
2009-12	University Graduate Fellowship, Pennsylvania State University

<u>Not funded</u>

2016	NIH NICHD K99 – *How semantic representations unfold in the developing brain: Computational innovations to transform infant and child neuroimaging with fMRI, fNIRS, and EEG*
2015	Open Project Grant, Beijing Normal University – *Aligning neural semantic spaces of Chinese and English: Using multivariate neuroimaging methods to compare semantic representations across languages*
2015	NIH NICHD F32 – *Discovering the changes in neural representations of words for language learners using fNIRS+EEG decoding*

Papers Published

Wu, R., McGee, B., Ecchiveri, C., & **Zinszer, B. D.** (in press). Prior knowledge of category scope impacts visual search. *Pyschophysiology*.

Zinszer, B. D., Rolotti, S. V., Li, F. Li, P. (in press). Bayesian word learning in multiple language environments. *Cognitive Science*. doi:10.1111/cogs.12567

Zinszer, B. D., Bayet, L., Emberson, L. E., Raizada, R. D. S., & Aslin, R. N. (2018). Decoding semantic representations from fNIRS signals. *Neurophotonics*, *5*(1), 011003. doi:10.1117/1.NPh.5.1.011003

Emberson, L.*, **Zinszer, B. D.***, Raizada, R. D. S., & Aslin, R. (2017). Decoding the infant mind: Multivariate pattern analysis (MVPA) using fNIRS. *PLoS ONE, 12*(4): e0172500. doi:10.1371/journal.pone.0172500 (*co-first authors)

Wu, R., Pruitt, Z., **Zinszer, B. D.**, & Cheung, O. S. (2017). Increased experience amplifies the activation of task-irrelevant category representations. *Attention, Perception, & Psychophysics, 79*(2), 522-532. doi: 10.3758/s13414-016-1254-9

Zinszer, B. D., Anderson, A. J., Kang, O., Wheatley, T., & Raizada, R.D.S. (2016). Semantic structural alignment of neural representational spaces enables translation between English and Chinese words. *Journal of Cognitive Neuroscience, 28*(11), 1749-1759. doi:10.1162/jocn_a_01000.

Karuza, E., Li, P., Weiss, D. J., Bulgarelli, F., **Zinszer, B. D.,** & Aslin, R. (2016). Sampling over non-uniform distributions: A neural efficiency account of the primacy effect in statistical learning. *Journal of Cognitive Neuroscience, 28*(10), 1484-1500. doi:10.1162/jocn_a_00990.

Fang, S., **Zinszer, B. D.**, Malt, B.C., & Li, P. (2016). Bilingual object naming: A connectionist model. *Frontiers in Psychology: Cognitive Science*. doi:10.3389/fpsyg.2016.00644

Anderson, A. J., **Zinszer, B. D.**, & Raizada, R. (2015). Representational similarity encoding for fMRI: Pattern-based synthesis to predict brain activity using stimulus-model-similarities. *Neuroimage, 128*, 44-53. doi:10.1016/j.neuroimage.2015.12.035

Zinszer, B. D., Chen, P., Wu, H., Shu, H., & Li, P. (2015). Second language experience modulates neural specialization for L1 lexical tones. *Journal of Neurolinguistics*, *33*, 50-66. doi:10.1016/j.jneuroling.2014.09.005

Zinszer, B. D., Malt, B., Ameel, E., Li, P. (2014). Native-likeness in second language lexical categorization reflects individual language history and linguistic community norms. *Frontiers in Psychology*, *5*(01203). doi:10.3389/fpsyg.2014.01203.

Zou, L., Abutalebi, J., **Zinszer, B.**, Yan, X., Shu, H., Peng, D., Ding, G. (2012). Second language experience modulates functional brain network for the native language production in bimodal bilinguals. *Neuroimage, 62*(3), 1367-75.

Papers Under Review or Revision

Bayet, L., **Zinszer, B. D.**, Pruitt, Z., Aslin, R. N., & Wu, R. Perceptual narrowing of neural representations, but not target selection, when searching for faces.

Weiss, D. J., **Zinszer, B. D.**, Poepsel, T. J., & Aslin, R. N. Stay or switch: The impact of consistency on statistical learning of multiple structures.

Refereed Conference Papers

Chen, D., Jew, C. A., **Zinszer, B. D.**, & Raizada, R.D.S. (2017). Anticipation effect after implicit distributional learning. *Proceedings of the 39th Annual Conference of the Cognitive Science Society*.

Zinszer, B. D., Anderson, A. J., Raizada, R.D.S. (2016). Chinese and English speakers' neural representations of word meaning offer a different picture of cross-language semantics than corpus and behavioral measures. *Proceedings of the 38th Annual Conference of the Cognitive Science Society*.

Zinszer, B. D., Anderson, A. J., Kang, O., Wheatley, T., & Raizada, R.D.S. (2015). You say potato, I say tudou: How speakers of different languages can share the same concept. *Proceedings of the 37th Annual Conference of the Cognitive Science Society*.

Fang, S., **Zinszer, B. D.**, Malt, B.C., & Li, P. (2015). A computational model of object naming convergence in the bilingual lexicon. *Proceedings of the 37th Annual Conference of the Cognitive Science Society*.

Zinszer, B. D. & Weiss, D. J. (2013). When to hold and when to fold: Detecting structural changes in statistical learning. *Proceedings of the 35th Annual Conference of the Cognitive Science Society*.

Zinszer, B. D. & Li, P. (2010). A SOM model of first language lexical attrition. In S. Ohlsson & R. Catrambone (Eds.), *Proceedings of the 32nd Annual Conference of the Cognitive Science Society*. Austin, TX: Cognitive Science Society.

Refereed Presentations

McHaney, J. R., **Zinszer, B. D.**, Smayda, K. E., & Chandrasekaran, B. Effect of listening environment on cortical entrainment to continuous speech in older adults. Poster to be presented at the Cognitive Neuroscience Society, March 24-27, 2018, Boston, MA.

Shay, E. A., **Zinszer, B. D.**, & Raizada, R. D. S. Between-subjects neural decoding of phrase representations outperforms Word2Vec decoding. Poster presented at the Cognitive Computational Neuroscience conference, September 6, 2017, New York, NY.

McGee, B., Ecchiveri, C., **Zinszer, B.**, & Wu, R. Prior knowledge of category size impacts search. Poster presented at the Cognitive Neuroscience Society, March 2017, San Francisco, CA.

Zinszer, B. D., Bayet, L., Emberson, L., & Aslin, R. Decoding semantic representations from fNIRS signals. Poster presented at the Society for Functional Near-Infrared Spectroscopy, Oct 13-16, 2016.

Emberson, L., **Zinszer, B. D.**, Raizada, R.D.S., & Aslin, R. Decoding the infant mind: Multichannel pattern analysis (MCPA) using fNIRS. Poster presented at the Society for Functional Near-infrared Spectroscopy, Oct 13-16, 2016.

Zinszer, B. D., Emberson, L., Raizada, R. D. S., & Aslin, R. Decoding the infant mind: Multichannel pattern analysis (MCPA) using fNIRS. Poster presented at the Cognitive Neuroscience Society, April 4, 2016.

Zinszer, B. D., Anderson, A. J., Kang, O., Wheatley, T., & Raizada, R.D.S. Chinese and English speakers share representations for word-elicited concepts, but semantic models struggle to capture this similarity. Poster presented at the Society for the Neurobiology of Language, October 16, 2015.

Zinszer, B. D., Wang, R., & Li, P. Bilingual categorization reveals cross-language lexical semantic competition in naming. Talk presented at the 10th International Symposium on Bilingualism, May 2015.

Zhang, T., **Zinszer, B. D.**, Wang, R., & Li, P. Bilinguals' anterior cingulate and *pars triangularis* reflect both native and second language norms during native language production. Poster presented at the 22nd annual meeting of the Cognitive Neuroscience Society, March 2015.

Zinszer, B. D., Poepsel, T., Aslin, R., & Weiss, D. J. When to hold and when to fold: Detecting structural changes in statistical learning. Poster presented at the 39th annual Boston University Conference on Language Development, November 7, 2014.

Zinszer, B. D., Malt, B., Ameel, E, & Li, P. What is a cup? Effects of immersion, language, and learner variables on lexical category convergence. Poster presented at Psychonomic Society 54th Annual Meeting, November 26, 2013.

Zinszer, B. D., Holt, T., Han, W., Shu, H., & Li, P. Age of L2 onset modulates left MTG specialization for L1 lexical tones. Society for the Neurobiology of Language, November 6, 2013.

Zinszer, B. D. & Weiss, D. J. When to hold and when to fold: Detecting structural changes in statistical learning. Poster presented at the 35th Annual Conference of the Cognitive Science Society, August 3, 2013.

Rolotti, S. V., **Zinszer, B. D.**, Carlson, E. A. & Li, P. Bayesian Word Learning in Multiple Languages. Poster presented at the 35th Annual Conference of the Cognitive Science Society, August 3, 2013.

Zinszer, B. D., Malt, B., Ameel, E, & Li, P. Effects of immersion, language, and learner variables on lexical category convergence. Talk presented at the 9th International Symposium of Bilingualism, June 13, 2013.

Weiss, D.J., Poepsel, T., & **Zinszer, B.** Know when to hold 'em: Detecting structural changes in statistical learning. Talk presented at the Association for Psychological Science, Washington, D.C., May 23-26, 2013.

Rolotti, S. V., **Zinszer, B. D.**, & Li, P. Bayesian Inference for Bilingual Word Learning. Poster presented at The Society for Computers in Psychology, November 14, 2012.

Zinszer, B. D. & Li, P. Predictors of native-like categorization in Chinese learners of English. Talk presented at Second Language Research Forum, October 21, 2012.

Zinszer, B. D. & Li, P. Bilingual categorization behavior: internally or externally emergent? Talk presented at the 8th International Symposium of Bilingualism, June 15-18, 2011.

Zinszer, B. D. & Li, P. Cross-Language Lexical Interaction in Object Naming. Poster presented at Psychonomic Society 51st Annual Meeting, November 20, 2010.

Zinszer, B. D. & Li, P. Modeling age of onset in first language lexical attrition. Talk presented at Society for Computers in Psychology 40th Annual Meeting, November 18, 2010.

Zinszer, B. & Li, P. A SOM model of first language lexical attrition. Talk presented at the 32nd Annual Conference of the Cognitive Science Society, Portland, Oregon, August, 2010.

Zinszer, B. D. & Phinney, R. E. Effects of mask-to-target energy ratio on cyclopean metacontrast masking. Poster presented Vision Sciences Society 9th Annual Meeting, May 13-18 2009.

Teaching Experience
Language and the Brain (BCS 265), University of Rochester
Psychology of Language (PSYCH/LING 457), Penn State University
Introductory Statistics (PSYCH 200), Penn State University World Campus
Basic Research Methods in Psychology (PSYCH 301W; Lab instructor), Penn State University

Computational & Technical Experience
Matlab (incl. SPM8, SOM Toolbox, HomER/HomER2); Python; Statistical computing (R/R-Studio, SPSS); Functional near-infrared spectroscopy (Hitachi ETG-4000, Shimadzu LABNIRS, NIRx Scout); Multivariate pattern analysis (MVPA) for fMRI & fNIRS; Effective connectivity modeling of functional neuroimaging data

Reviewer
Behavior Research Methods; Bilingualism: Language and Cognition, Brain & Language; Cerebral Cortex; Developmental Cognitive Neuroscience; Frontiers in Communication; Journal of Neurolinguistics; The Modern Language Journal; Neuropsychologia; Journal of Speech, Language, and Hearing Research

Professional Service
- Communications Team, UT Multimodal Neuroimaging Initiative, Fall 2017
- Workshop co-organizer, Introduction to fNIRS, Univ. of Texas at Austin, Oct 2017
- Brain Awareness Week, presenter in 2nd - 6th grades (Rochester, NY, USA), 2016 & 2017
- Brain & Language workshop instructor on MVPA methods, Jiangsu Normal University (Xuzhou, Jiangsu province, China), Summer 2015
- Statistical consultant to Guangwai Brain and Language Lab, Guangdong University of Foreign Studies (Guangzhou, China), Summer & Fall 2013
- Statistical Consulting Center consultant (Penn State Univ.), Spring 2013
- Delegate to The 2nd Young Scientist Forum, US-China Consultation on People-to-People Exchange (Beijing, China), Summer 2012
- Judge for Pennsylvania Junior Science and Humanities Symposium (State College, PA), 2011