# Benjamin Zinszer, Ph.D.

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Visiting Assistant Professor in the Department of Psychology at Swarthmore College (2020 - present)

Faculty Administrator of Special Major in Neuroscience at Swarthmore College (2022 - present)

Scientific consultant in sampling, experimental design, neuroimaging data analysis, and statistics

# **Overview of recent activities**

### **Teaching in Fall 2023**

Computational Methods for Psychology and Neuroscience (PSYC 031)

Seminar in Cognitive Neuroscience of Language (PSYC 131)

Senior thesis in Neuroscience (PSYC 099)

### Recent professional service activities

Tri-College Neuroscience Symposium co-organizer, 2022-'23

Swarthmore College Office of Global Engagement Advisory Committee, 2023

Educational mini-courses through Society for fNIRS: *Multivariate pattern analysis (MVPA) for fNIRS: Advancing from "Where in the brain?" to "What's in the brain?"* October & December, 2022.

### Registered research studies in progress

Semantic classification of fNIRS data in adults and infants: https://osf.io/pg4zk/

Phone-based literacy curriculum intervention in Côte d'Ivoire: <a href="https://osf.io/q96i2/">https://osf.io/q96i2/</a>

### Recent preprints under review or in press

Zinszer, B. D., Pirazzoli, L., Nelson, C. A., Emberson, L., Aslin, R., & Bejjanki, V. R. & The Gates Foundation fNIRS Consortium (2023). Multivariate fNIRS response patterns to social information are increasingly discriminable from six to sixty months of age. Preprint under revision for resubmission. https://psyarxiv.com/zmrkn

Zinszer, B. D., Hannon, J., Hu, A., Kouadio, A. E., Akpé, H., Tanoh, F., †Wang, M., Qi, Z., & Jasińska, K. Statistical learning and children's emergent literacy in rural Côte d'Ivoire. Preprint under revision. <a href="https://osf.io/preprints/africarxiv/q8k5w/">https://osf.io/preprints/africarxiv/q8k5w/</a>

## Recent funding received or assisted

**Faculty awardee** on *Developing a curriculum for undergraduate education in neuroimaging using fNIRS*; Swarthmore College Teaching & Learning Commons Summer Serendipity Grant (2023)

**Consultant** on *Brain Connectivity Changes with Spinal Cord Stimulation Treatment of Chronic Pain: A Resting State NIRS/EEG Study*; U.S. Department of Veterans Affairs (2023-'25)

**Symposium co-organizer** on *The 2nd Tri-College Neuroscience Symposium*; Mellon Tri-College Seed Grant – US\$3000 (2023)

**Principal investigator** on *Statistical Learning and Literacy in Côte d'Ivoire*; *Language Learning*'s Early Career Research Grant for Registered Reports – US\$10,000 (2021-'23)

# Other work, educational, and professional history

### **Previous employment**

2018 - 2020	Research Associate BOLD Lab, Dept of Linguistics and Cognitive Science, University of Delaware (80%) Princeton Baby Lab, Dept of Psychology, Princeton University (20%)
Spring 2018	Technical Director, Multimodal Neuroimaging Initiative, University of Texas at Austin
2017 - 2018	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)

#### **Courses taught**

Introduction to Cognitive Science (COGS 001), Swarthmore College

Research Design & Analysis (PSYC 025), Swarthmore College

Cognitive Neuroscience (PSYC 031), Swarthmore College

Cognitive Neuroscience (PSYC 031, as intensified J-term course), Swarthmore College

Psychology of Language (PSYC 034 / LING 034), Swarthmore College

Practicum in Cognitive Neuroscience: Human Neuroimaging Data (PSYC 110), Swarthmore College

Seminar in Cognitive Neuroscience of Language (PSYC 131), Swarthmore College

Independent Research (PSYC 094), Swarthmore College

Directed Reading in Cognitive Science (COGS 092), Swarthmore College

Thesis in Psychology (PSYC 096 / 097), Swarthmore College

Thesis in Neuroscience (PSYC 099), Swarthmore College

Thesis in Cognitive Science (COGS 090), Swarthmore College

Honors Thesis in Psychology (PSYC 180), Swarthmore College

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; as lab instructor), Penn State University

# **Grant funding & fellowships**

2023-25	Consultant for Small Projects in Rehabilitation Research (SPiRE), U.S. Department of Veterans Affairs – <i>Brain Connectivity Changes with Spinal Cord Stimulation Treatment of Chronic Pain: A Resting State NIRS/EEG Study</i>
2023	Mellon Tri-College Seed Grant to host <i>The 2nd Tri-College Neuroscience Symposium</i> at Swarthmore College – <i>US\$3000</i>
2021-23	Early Career Research Grant for Registered Reports, Language Learning (journal) – Statistical Learning and Literacy in Côte d'Ivoire – US\$10,000
2020-22	Consultant for Early Predictors of Neurodevelopmental Outcomes (NIRS); Bill and Melinda Gates Foundation
2018-20	Open Project Grant, Beijing Normal University – Effects of immersion and aging on continuous speech encoding of L1 and L2 in Chinese-English bilinguals – CN¥90,000
2013-14	Pennsylvania Space Grant Consortium Graduate Fellow – US\$10,000
2012	NSF East Asia and Pacific Summer Institutes Fellow to Beijing, China – US\$5,836
2012	Confucius Institute Scholarship – US\$1000
2011	Center for Language Science PIRE Graduate Fellow to Beijing, China
2009-12	University Graduate Fellowship, Pennsylvania State University

# Swarthmore College summer research fellowships

2023: Sumin Byun, Madeleine Wang; 2021: Jino Chough, Jonah Covitz, Gabrielle Ma

# Haverford College KINSC summer fellowships

2021: Jingyuan She, Ping Wen

# Not funded

2018	ConTex Collaboration Grant, University of Texas & CONACYT – Portable brain imaging for measuring language knowledge in speakers of Spanish and English
2018	NIH NIDCD R21 – Continuous speech processing in normal aging and primary progressive aphasia
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

#### Reviewer for peer-reviewed publications

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

### Other professional service

Tri-College Neuroscience Symposium co-organizer, 2022-'23

Swarthmore College Off-Campus Study Committee, 2021-'23 academic years

Ad-hoc Reviewer for National Science Foundation grant proposals, 2021

Guest lecturer, 2020-'21 academic year: Swarthmore College: Intro to Linguistics, Intro to Cognitive Science; Univ. of Delaware: Intro to Cognitive Science; Univ. of Texas: Cognitive Neuroscience

Maintainer of repositories for free open-source software (FOSS) and datasets: <a href="https://teammcpa.github.io">https://teammcpa.github.io</a>, <a href="https://spin-scorcerer.github.io">https://spin-scorcerer.github.io</a>

Brain Day, presenter for Independence School 5th grade, April 2019

Communications Team, UT Multimodal Neuroimaging Initiative, Fall 2017 – Spring 2018

Brain Day, presenter for UT Conversation Club therapy group, Feb 2018

Workshop co-organizer, Introduction to fNIRS, Univ. of Texas at Austin, Oct 2017

Brain Awareness Week, presenter in 2<sup>nd</sup> - 6<sup>th</sup> grades (Rochester, NY, USA), 2016 & 2017

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 2<sup>nd</sup> 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

# **Publications and presentations**

† denotes student co-authors from CONE LAB

## **Invited Workshops**

Multivariate pattern analysis (MVPA) for fNIRS: Advancing from "Where in the brain?" to "What's in the brain?" Online educational mini-course offered by *Society for fNIRS*. December 15, 2022.

Multivariate pattern analysis (MVPA) for fNIRS: Advancing from "Where in the brain?" to "What's in the brain?" Educational mini-course offered at *Society for fNIRS* meeting. October 9, 2022.

fNIRS Methods and Data Analysis, 3-day workshop at Chinese University of Hong Kong, July 30-August 1, 2018.

Multivariate pattern analysis and near-infrared spectroscopy: Decoding the developing brain. *IX Congreso Nacional de Tecnología Aplicada a Ciencias de la Salud*, Puebla, MX, June 15, 2018.

- Multivariate pattern analysis (MVPA) for fNIRS. *Introduction to fNIRS workshop* co-hosted by University of Texas at Austin and NIRx Medical Technologies, October 6, 2017.
- Semantic models and functional brain imaging. IBM Thomas J. Watson Research Center, Yorktown Heights, NY, September 16, 2016.
- Multi-voxel (or multi-variate) pattern analysis. *Jiangsu Normal University Summer School on Neuroimaging Methods, Cognition, and Language*. Xuzhou, Jiangsu, China. August 7, 2015.

#### Peer reviewed articles & chapters

- Llanos, F. & Zinszer. B. D. (In press.) Neurolinguistic approaches to bilingual phonetics and phonology. In M. Amengaul (ed.) *Cambridge Handbook of Bilingual Phonetics and Phonology*. In press.
- Zinszer, B. D., Hannon, J., Kouadio, A. E., Akpé, H., Tanoh, F., Hu, A., Qi, Z., & Jasińska, K. (2024). Does non-linguistic segmentation predict literacy in second language education? Statistical learning in Ivorian primary schools. *Language Learning*. <a href="https://doi.org/10.1111/lang.12603">https://doi.org/10.1111/lang.12603</a>
  [ *Preprint disponible en français*: <a href="https://osf.io/preprints/africarxiv/mzkp4">https://osf.io/preprints/africarxiv/mzkp4</a>]
  [ special issue: <a href="https://osf.io/mp47b/">https://osf.io/mp47b/</a>, open data & scripts: <a href="https://osf.io/6f8aw/">https://osf.io/mp47b/</a>, open data
- Jasińska, K., Zinszer, B. D., Xu, Z., Hannon, J., Seri, A. B., Tanoh, F., & Akpe, H. (2022). Home learning environment and physical development impact children's executive functions and literacy in rural Côte d'Ivoire. *Cognitive Development*, 64(101265). <a href="https://osf.io/preprints/africarxiv/5pr69/">https://osf.io/preprints/africarxiv/5pr69/</a> [open data & scripts: <a href="https://osf.io/wmbg8/">https://osf.io/wmbg8/</a>]
- Zinszer, B. D., Yuan, Q., Zhang, Z., Chandrasekaran, B., & Guo, T. (2022) Continuous speech tracking in bilinguals reflects adaptation to both language and noise. *Brain and Language*, 230, 105128. https://osf.io/7ybpe/ [open data & scripts: https://osf.io/p49u6/]
- Jasińska, K., Akpe, Y. H., Seri, B. A. D., Zinszer, B., Agui-Kouadio, R. Y., Mulford, K., Curran, E., Ball, M.-C. & Tanoh, F. (2022). Evaluating bilingual children's native language abilities in Côte d'Ivoire: Introducing the Ivorian Children's Language Assessment Toolkit for Attié, Abidji, and Baoulé. In press at *Applied Linguistics*. <a href="https://doi.org/10.1093/applin/amac025">https://doi.org/10.1093/applin/amac025</a> [see also related French preprint: <a href="https://osf.io/preprints/africarxiv/vqyk4/">https://osf.io/preprints/africarxiv/vqyk4/</a>]
- Wang, D., Wang, S., Zinszer, B. D., Sheng, L., & Jasińska, K. (2022). Cross-linguistic influences of L1 on L2 morphosyntactic processing: An fNIRS study. *Journal of Neurolinguistics*, 63, 101063. <a href="https://doi.org/10.1016/j.jneuroling.2022.101063">https://doi.org/10.1016/j.jneuroling.2022.101063</a>
- Ashton, K., Zinszer, B. D., Cichy, R. M., Nelson, C. A., Aslin, R. N., Bayet, L. (2022). Time-resolved multivariate pattern analysis of infant EEG data: A practical tutorial. *Developmental Cognitive Neuroscience*, *54*, 101094. <a href="https://doi.org/10.1016/j.dcn.2022.101094">https://doi.org/10.1016/j.dcn.2022.101094</a>
- Bayet, L., Zinszer, B. D., Reilly, E., Cataldo, J., Pruitt, Z., Cichy, R. M., Nelson, C. A., & Aslin, R. N. (2020). Temporal dynamics of visual representations in the infant brain. *Developmental Cognitive Neuroscience*, 45(100860), 1-10. https://doi.org/10.1016/j.dcn.2020.100860
- McHaney, J.R., Gnanateja, G.N., Smayda, K.E., Zinszer, B.D., & Chandrasekaran, B. (2020). Cortical tracking of speech in delta band relates to individual differences in speech in noise comprehension in older adults. *Ear and Hearing*, 42(2), 343-354. <a href="https://pubmed.ncbi.nlm.nih.gov/32826508/">https://pubmed.ncbi.nlm.nih.gov/32826508/</a>

- Xie, Z., Zinszer, B. D., Riggs, M., Beevers, C. G., & Chandrasekaran, B. (2019) Impact of depression on speech perception in noise. *PLoS ONE*, *14*(8), e0220928. doi: 10.1371/journal.pone.0220928 [Open dataset: <a href="https://spin-scorcerer.github.io">https://spin-scorcerer.github.io</a>]
- Zinszer, B. D., Riggs, M., Reetzke, R., & Chandrasekaran, B. (2019). Error patterns of native and non-native listeners' perception of speech in noise. *The Journal of the Acoustical Society of America*, *145*(2), EL129-EL135. doi: 10.1121/1.5087271
  [Open dataset, analysis code, & statistical supplement: <a href="https://spin-scorcerer.github.io">https://spin-scorcerer.github.io</a>]
- Bayet, L., Zinszer, B. D., Pruitt, Z., Aslin, R. N., & Wu, R. (2018). Dynamics of neural representations when searching for exemplars and categories of human and non-human faces. *Scientific Reports*, 8(1), 13277. doi: 10.1038/s41598-018-31526-y.

  [Open datasets: <a href="https://doi.org/10.6084/m9.figshare.5119966">https://doi.org/10.6084/m9.figshare.5119966</a>]
- Wu, R., McGee, B., Ecchiveri, C., & Zinszer, B. D. (2018). Prior knowledge of category scope impacts visual search. *Pyschophysiology*. doi: 10.1111/psyp.13075
- Zinszer, B. D., Rolotti, S. V., Li, F. Li, P. (2018). Bayesian word learning in multiple language environments. *Cognitive Science*, *42*(S2): 439-462. doi:10.1111/cogs.12567 [Open dataset: https://github.com/bzinszer/Bayes-Learn-Multi-Lang]
- 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 [Open dataset & analysis code: <a href="https://teammcpa.github.io">https://teammcpa.github.io</a>]
- 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) [open materials: <a href="https://teammcpa.github.io">https://teammcpa.github.io</a>]
- 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.

#### Other Papers Under Review & Revision

- Brice, H., Zinszer, B. D., Kablan, D., Tanoh, F., Nana, K. N. N., & Jasińska, K. K. Individual differences in leveraging regularity in emergent L2 readers in rural Côte d'Ivoire. Under review. https://osf.io/preprints/africarxiv/cmb7x
- Hannon, J. Zinszer, B. D., Kouadio, E., Tanoh, F., Earle, S., & Jasinska, K. K. Contributions of procedural memory to emergent reading in older children. Under revision for resubmission.
- Nematova, S., Zinszer, B. D., Morlet, T., Morini, G., Petitto, L.-A., & Jasińska, K. Impact of signed language exposure on speech perception in CI users. Under review. <a href="https://psyarxiv.com/afyu5/">https://psyarxiv.com/afyu5/</a>
- Wortsman, B., Capani, A., Brice, H., Ball, M., Zinszer, B. D., Ogan, A., Wolf, S., & Jasińska, K. K. Risk and resilience factors for primary school dropout in Côte d'Ivoire. Preprint under review. <a href="https://osf.io/preprints/africarxiv/rx3zk">https://osf.io/preprints/africarxiv/rx3zk</a>
- Zinszer, B. D., Hannon, J., Hu, A., Kouadio, A. E., Akpé, H., Tanoh, F., †Wang, M., Qi, Z., & Jasińska, K. Statistical learning and children's emergent literacy in rural Côte d'Ivoire. Preprint under revision. <a href="https://osf.io/preprints/africarxiv/q8k5w/">https://osf.io/preprints/africarxiv/q8k5w/</a> [open data & scripts: <a href="https://osf.io/nza7m/">https://osf.io/preprints/africarxiv/q8k5w/</a> [open data & scripts: <a href="https://osf.io/nza7m/">https://osf.io/nza7m/</a>]
- Zinszer, B. D., Pirazzoli, L., Nelson, C. A., Emberson, L., Aslin, R., & Bejjanki, V. R. (2023). Multivariate fNIRS response patterns to social information are increasingly discriminable from six to sixty months of age. Preprint under review. <a href="https://psyarxiv.com/zmrkn">https://psyarxiv.com/zmrkn</a>

### **Refereed Conference Papers**

- <sup>†</sup>Chough, J., & Zinszer, B. D. (2022). Deep in the trenches: First language performance predicts primacy in statistical learning of two structures. *Proceedings of the 44th Annual Conference of the Cognitive Science Society*. <a href="https://escholarship.org/uc/item/48q5494m">https://escholarship.org/uc/item/48q5494m</a>
- Madaio, M., Yarzebinski, E., Kamath, V., Zinszer, B. D., Hannon, J., Tanoh, F., Akpe, Y. H., Seri, A. B., Jasinska, K., & Ogan, A. Collective Support and independent learning with a voice-based literacy technology in rural communities. Proceedings of *Computer Human Interaction 2020*. <a href="https://dl.acm.org/doi/abs/10.1145/3313831.3376276">https://dl.acm.org/doi/abs/10.1145/3313831.3376276</a>
- 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*. <a href="https://cogsci.mindmodeling.org/2017/papers/0341/paper0341.pdf">https://cogsci.mindmodeling.org/2017/papers/0341/paper0341.pdf</a>
- 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*. https://cogsci.mindmodeling.org/2016/papers/0390/paper0390.pdf

- Zinszer, B. D., Anderson, A. J., Kang, O., Wheatley, T., & Raizada, R.D.S. (2015). You say potato, I say 土豆: How speakers of different languages can share the same concept. *Proceedings of the 37th Annual Conference of the Cognitive Science Society*. <a href="https://cogsci.mindmodeling.org/2015/papers/0484/paper0484.pdf">https://cogsci.mindmodeling.org/2015/papers/0484/paper0484.pdf</a>
- 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*. https://cogsci.mindmodeling.org/2015/papers/0121/paper0121.pdf
- 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*. <a href="https://escholarship.org/uc/item/6rf3g020">https://escholarship.org/uc/item/6rf3g020</a>
- 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*. <a href="https://escholarship.org/uc/item/55v2387s">https://escholarship.org/uc/item/55v2387s</a>

### **Refereed Conference Presentations**

- †Byun, S., Zinszer, B. D. & The Gates Foundation fNIRS Consortium (2023). Classification of infant fNIRS data improves prediction of cognitive development 18 months later. [Poster session]. The Boston University and Chen Institute Joint Conference on the Neuroscience of the Everyday World. <a href="https://openfnirs.org/wp-content/uploads/formidable/3/OpenfNIRS\_Abstract-1.pdf">https://openfnirs.org/wp-content/uploads/formidable/3/OpenfNIRS\_Abstract-1.pdf</a>
- <sup>†</sup>She, J. S., <sup>†</sup>Ma, G., <sup>†</sup>Wen, P., & Zinszer, B. D. (2023). Language Models Show Within-and Cross-language Similarities in Concrete Noun Meaning, but not Differences Between L1 and L2 English Speakers. [Poster session]. In *Proceedings of the Annual Meeting of the Cognitive Science Society*. <a href="https://escholarship.org/uc/item/4748z6vz">https://escholarship.org/uc/item/4748z6vz</a>
- <sup>†</sup>Akinsooto, D. <sup>†</sup>Hart, K., & Zinszer, B. Autism spectrum disorder: Differences in multisensory integration during speech in noise perception at lowest signal-to-noise ratios. [Poster session]. 36th Annual Conference on Human Sentence Processing, March 2023.
- <sup>†</sup>Miura, M. & Zinszer, B. Non-native disadvantage in speech perception in noise. [Poster session]. 36th Annual Conference on Human Sentence Processing, March 2023.
- <sup>†</sup>Rosenthal, E., <sup>†</sup>Hart, K., & Zinszer, B. ADHD symptoms intensify the effects of background noise on speech perception. [Poster session]. 36th Annual Conference on Human Sentence Processing, March 2023.
- <sup>†</sup>Chough, J., <sup>†</sup>Miura, M., <sup>†</sup>Rosenthal, E., & Zinszer. B. D. EEG reflects efficiency but not disengagement in artificial speech segmentation. [Poster session]. 14th Annual Meeting of the Society for the Neurobiology of Language.
- <sup>†</sup>Ma, G., & Zinszer, B. D. Lexical categorization variables for English and Mandarin quantify ambiguity in object naming. [Poster session]. 44th Annual Conference of the Cognitive Science Society.
- Herbolzheimer, A., Zinszer, B., Aslin, R., Bayet, L., Bejjanki, V. R., Black, A., Jaime, J., Kabdebon, C., Mittal, A., Robertson, C., Wang, A., Xiao, N., & Emberson, L. (2021) What is the best analytic approach for decoding in adult fNIRS? [Poster session]. Society for fNIRS Virtual Conference 2021.

- Hannon, J., Zinszer, B., Earle, S., Seri, A., Tanoh, F., Akpe, H., & Jasinska, K. (2020, October 21-24). The Role of Procedural Learning for Emergent Reading: Insights from Côte d'Ivoire [Poster session]. The Twelfth Annual Meeting of the Society for the Neurobiology of Language, Philadelphia, PA.
- Nematova, S., Zinszer, B., Morlet, T., Morini, G., Petitto, L.A, Jasinska, K. (2020, October 21-24). Early-life signed language exposure does not impede the development of spoken language: A functional near infrared spectroscopy investigation of phonemic discrimination in cochlear implant (CI) users [Poster session]. The Twelfth Annual Meeting of the Society for the Neurobiology of Language, Philadelphia, PA.
- Zinszer, B., Yuan, Q., Zhang, Z., Chandrasekaran, B., & Guo, T. (2020). Acoustic entrainment of speech supports comprehension under moderate noise, but degrades under more severe adversity. Poster presented at the 2020 Cognitive Neuroscience Society, Boston, MA.
- Nematova, S., Zinszer, B., Morlet, T., Morini, G., Petitto, L.A, Jasinska, K. (2020). Early signed language exposure does not harm phonemic discrimination for individuals with cochlear implants (CIs). Poster presented at the annual meeting of the Cognitive Neuroscience Society, Boston, MA.
- Wang, D., Wang, S., Zinszer, B., Sheng, L., Jasinska, K. (2020). L1 Morphological Typology Influences Patterns of Neural Activation for L2 Inflectional Processing: An fNIRS study. Poster presented at the annual meeting of the Cognitive Neuroscience Society, Boston, MA.
- Matteson, J., Wang, J., Bobowska, V., Zinszer, B. D., & Jasinska, K. (2020) Deep learning model of field imaging data provides insight on neurobiology of childhood literacy in rural Ivory Coast. Poster presented at the 2020 Cognitive Neuroscience Society, Boston, MA.
- Kampa, A., Zinszer, B., Papafragou, A., & Jasinska, K. Neural generation of scalar implicatures in preschool children and adults. Talk to be presented at the 44th Boston University Conference on Language Development, November 7-10, 2019.
- Hannon, J., Zinszer, B., Earle, S., Seri, A., Tanoh, F., Akpe, H., & Jasinska, K. The impact of declarative and procedural memory systems on late childhood literacy development. Poster presented at the 2019 Society for Research in Child Development. Baltimore, Maryland, USA.
- Robertson, C., Reuter, T., Zinszer, B., & Emberson, L. Decoding infants' pre-activation of lexical representations via fNIRS. Poster presented at the 2019 Society for Research in Child Development. Baltimore, Maryland, USA.
- Dial, H. R., Zinszer, B. D., Chandrasekaran, B., & Henry, M. L. Neural encoding of phonetic features relates to phonological processing in PPA. Poster presented at the 56th Annual Meeting of the Academy of Aphasia. Montreal, Canada.
- Emberson, L. L., Reuter, T., Robertson, C., Mazzei, C., Lew-Williams, C., & Zinszer, B. Decoding pre-activation of lexical representations during language comprehension in infancy. Poster presented at the Society for Functional Near-Infrared Spectroscopy. Tokyo, Japan.
- Zinszer, B. D., Hay, T. A., Athey, A., & Chandrasekaran, B. Lexical tone classification in frontal and posterior regions using fNIRS. Poster presented at the 10th Annual Meeting of the Society for the Neurobiology of Language, Québec City, Québec, Canada.
- Dial, H. R., Zinszer, B. D., Chandrasekaran, B., & Henry, M. L. Cortical entrainment of continuous speech envelope is preserved in non-fluent PPA. Poster presented at the 10th Annual Meeting of the Society for the Neurobiology of Language, Québec City, Québec, Canada.

- Zinszer, B. D., Hay, T. A., Athey, A., & Chandrasekaran, B. Quality of frequency-following response to speech sounds linked with left prefrontal hemodynamic activity using fNIRS+EEG. Talk presented at 2nd International Neuroergonomics Conference, June 27-29, 2018, Philadelphia, PA.
- 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 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 10<sup>th</sup> 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 22<sup>nd</sup> 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 39<sup>th</sup> 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 54<sup>th</sup> 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 9<sup>th</sup> 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 8<sup>th</sup> 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 51<sup>st</sup> 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 40<sup>th</sup> Annual Meeting, November 18, 2010.
- Zinszer, B. & Li, P. A SOM model of first language lexical attrition. Talk presented at the 32<sup>nd</sup> 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 9<sup>th</sup> Annual Meeting, May 13-18 2009.