

## Mandy J. Maguire

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### Current Position

Associate Professor	8/12 – present
Assistant Professor	8/05-8/12

School of Behavioral and Brain Sciences  
The University of Texas at Dallas, Richardson, TX

### Education

Postdoctoral Fellow: Developmental Neuroscience Lab University of Louisville, Louisville, KY Mentor: Dennis Molfese	8/03 – 7/05
Ph.D. in Developmental Psychology Temple University, Philadelphia PA Dissertation Advisor: Kathy Hirsh-Pasek Dissertation: Children use universal and language-specific cues in verb learning	8/99 – 10/03
B.A. in Psychology The Pennsylvania State University, State College, PA	8/94 – 5/98

### Publications

#### Peer-reviewed Articles

Schneider, J.M., Abel, A.D., & **Maguire, M.J.** (2022). Vocabulary knowledge and reading comprehension account for SES-differences in how school-aged children infer word meanings from sentences. *Language Learning and Development*, DOI: 10.1080/15475441.2022.2081573

**Maguire, M.J.**, Schneider, J. M., Melamed, T., Ralph, Y.K., Poudel, S. Raval, V.M., Mikhail, D. & Abel, A.D. (2022). Temporal and topographical changes in theta power between middle childhood and adulthood during sentence comprehension. *Developmental Cognitive Neuroscience*

Evans, J. L., **Maguire, M.J.**, Sizemore, M., & Polse, L. (2022). Neural correlates of lexical processing adolescents with specific language impairment: support for the procedural deficit hypothesis? *Journal of Neurodevelopmental Disorders*.

Schneider, J.M., Abel, A.D. Momsen, J., Melamed, T.C.& **Maguire, M.J.** (2021). Neural oscillations reveal differences in the process of word learning

among school-aged children from lower socioeconomic status backgrounds. *Neurobiology of Language*, 2(3), 372-388 DOI: 10.1162/nol\_a\_00040

Ralph, Y.K., Berinhout, K., & **Maguire, M.J.** (2021). Gender differences in mothers' spatial language use and children's mental rotation abilities in Preschool and Kindergarten. *Developmental Science*, 24(2) 2020;00:e13037, DOI: 10.1111/desc.1307.

Chiang, H-S., Spence, J., Eroh, J., **Maguire, M.J.**, Kraut, M., & Hart, J. (2020). Multimodal feature binding in object memory retrieval using event related potentials: Implications for models of semantic memory. *International Journal of Psychophysiology*, 153, 116-123. DOI: 10.1016/j.ijpsycho.2020.04.024

Ralph, Y.K., Schneider, J. M., Abel, A.D., & **Maguire, M.J.** (2020). Using the N400 Event Related Potential (ERP) to study word learning from context in children from low and higher-income homes. *Journal of Experimental Child Psychology*, 191, 1-15, DOI: 10.1016/j.jecp.2019.104758

**Maguire, M. J.** & Schneider, J.M. (2019). Socioeconomic status related differences in resting state EEG activity correspond to differences in vocabulary and working memory in grade school. *Brain and Cognition*, 137, 1-8, DOI: 10.1016/j.bandc.2019.103619

Schneider, J.M & **Maguire, M.J.** (2019). Developmental differences in the neural correlates supporting semantics and syntax during sentence processing. *Developmental Science*. 22(4), DOI: 10.1111/desc.12782

**Maguire, M.J.**, Schneider, J.M., Middleton, A.E., Ralph, Y, Lopez, M., Ackerman, R.A., & Abel, A.D. (2018). Vocabulary knowledge mediates the link between socioeconomic status and word learning in grade school. *Journal of Experimental Child Psychology*, 166, 679-695. DOI: 10.1016/j.jecp.2017.10.003

Schneider, J.M., Abel, A. D., Ogiela, D.A., McCord, C., & **Maguire, M.J.** (2018). Developmental differences in the neural oscillations underlying auditory sentence processing in children and adults. *Brain and Language*, 186, 17-25.

Schneider, J.M. & **Maguire, M.J.** (2018). Identifying the relationship between oscillatory dynamics and event related responses. *International Journal of Psychophysiology*, 113, 182-192. DOI: 10.1016/j.ijpsycho.2018.07.002

Motes, M. A., Spence, J. S., Anand, R., Brier, M. R., Chiang, H.S., DeLaRosa, B., Eroh, J. **Maguire, M.J.**, Mudar, R., Tillman, G. D., Kraut, M., & Hart, J. (2018). Conjoint differences in inhibitory control and processing speed in childhood to older adult cohorts: Discriminant functions from a Go/No-Go

- Task. *Psychology and Aging*, 33(7), 1070-1078.  
<http://dx.doi.org/10.1037/pag0000299>
- Abel, A.D., Schneider, J.M., & **Maguire, M.J.** (2018). N400 response indexes word learning from linguistic context in children. *Language, Learning and Development*, 14(1), 61-71. DOI: 10.1080/15475441.2017.1362347
- Nguyen, L. T., Chiang, H-S., Schneider, J. M., **Maguire, M.J.**, Kraut, M. A., Hart, J., & Mudar, R. A. (2017). Theta and alpha alternations in Amnestic Mild Cognitive Impairment in semantic Go/NoGo tasks. *Frontiers in Aging Neuroscience*, 9, 160. doi: 10.3389/fnagi.2017.00160
- Middleton, A.E., Schneider, J. M & **Maguire, M. J.**, (2017). Age-related differences in beta engagement during single word processing. *Language Learning and Development*, 32(10), 1250-1260. DOI: 10.1080/23273798.2017.1297841
- Schwarz, A. L., van Kleeck, A., **Maguire, M. J.**, & Abdi, H. (2017). Do acting out verbs with dolls and analogical reasoning between two events boost toddlers' verb comprehension. *Journal of Child Language*, 44(3), 719-733. DOI: <http://dx.doi.org/10.1017/S0305000916000076>
- Mudar, R.A, Chiang, H.S., Eroh, J., Nguyen, L.T, **Maguire, M.J.**, Spence, J.S. Kung, F., Kraut, M.A., & Hart, J. (2016). The effects of amnestic mild cognitive impairment on Go/NoGo semantic categorization task performance and event-related potentials. *Journal of Alzheimer's Disease*, 50(2), 577-590.
- Schneider, J.M., Abel, A.D., Ogiela, D., Middleton, A. & **Maguire, M.J.** (2016). Developmental differences in beta and theta power during sentence processing. *Developmental Cognitive Neuroscience*, 19, 19-30.
- Chiang, H-S, Eroh, J., Spence, J.S., Motes, M.A., **Maguire M.J.**, Krawczyk, D., Brier, M., Hart, J., & Kraut, M.A. (2016). Common and differential electrophysiological mechanisms underlying semantic object memory retrieval probed by features presented in different stimulus types. *International Journal of Psychophysiology*, 106, 77-86.
- Maguire, M.J.**, Abel, A.D., Schneider, J., Fitzhugh, A., McCord, J., & Jeevakumar, V. (2015). Electroencephalography theta differences between object nouns and action verbs when identifying semantic relations. *Language, Cognition and Neuroscience*, 30(6), 1-11.
- Mudar, R. A., Chiang, H.-S., **Maguire, M.J.**, Spence, J. S., Eroh, J., Kraut, M.A. & Hart, J. (2015). Effects of age on inhibitory processing during semantic categorization. *Behavioural Brain Research*, 287, 285-293
- Konishi, H. Wilson, F., Golinkoff, R. M., **Maguire, M.J.**, Hirsh-Pasek, K. (2014). Late Japanese bilingual's construal of novel verbs. *Bilingualism: Language and Cognition*. DOI: 10.1017/S136672891400073X

Abel, A.D., **Maguire, M.J.**, Naqvi, F. & Kim, A. (2014). Lexical retrieval of nouns and verbs in a sentence completion task. *Journal of Psycholinguistic Research*. DOI 10.1007/s10936-014-9304-8

**Maguire, M.J.**, Magnon, G. & Fitzhugh, A.E. (2014). Improving data retention in developmental visual EEG research using child-centered eye tracking. *Journal of Neuroscience Methods*, 238, 78-81. DOI: 10.1012/j.j.neumeth.2014.09.2014

Motes, M. A., Gamino, J., Chapman, S.B., Rao, N.K., **Maguire, M.J.**, Brier, M., Kraut, M., Hart, J. (2014). Inhibitory control gains from higher-order cognitive strategy training. *Brain and Cognition*, 84, 44-62.

**Maguire, M.J.** & Abel, A.D. (2013). What changes in neural oscillations can reveal about developmental cognitive neuroscience: Language development as a case in point. *Developmental Cognitive Neuroscience*, 6, 125-136. DOI: 10.1016/j.dcn.2013.08.002

**Maguire, M.J.**, Magnon, G., Ogeila, D.A., Egbert, R., & Sides, L. (2013). The N300 ERP component reveals developmental changes in object and action identification. *Developmental Cognitive Neuroscience*, 5, 1-9.

Hart, J., **Maguire, M.J.**, Motes, M., Mudar, R. A., Chiang, H-S, Womack, K., & Kraut, M. (2013). Semantic memory retrieval circuit: Role of pre-SMA, caudate, and thalamus. *Brain and Language*, 126(1), 89-98. DOI: 10.1016/j.bandl.2012.08.002

Chiang, H-S., Motes, M.A., Mudar, R.A., Rao, N.K., Mansinghani, S., Brier, M.R., **Maguire, M. J.**, Kraut, M.A., & Hart, J. Jr. (2013) Semantic processing and response inhibition. *NeuroReport*, 24(16), 889-893.

Hart, J., Calley C., Motes, M., Chiang, H-S., Spence, J., Abdi, H., Anand, R., **Maguire, M.J.**, Estevez, L., Briggs, R., Feeman, T., & Kraut, M. (2013). Threat as a feature in visual semantic object memory. *Human Brain Mapping*, 34, 1946-1955.

**Maguire, M. J.**, McClelland, M. M., Donovan, C. E., Tillman, G. D., & Krawczyk, D. C. (2012). Tracking cognitive stages in analogical reasoning with event-related potentials. *Journal of Experimental Psychology: Memory, Learning and Cognition*, 38(2), 273-281.

**Maguire, M. J.**, Brumberg, J., Ennis, M., & Shipley, T. F. (2011). Similarities in object and event segmentation: A geometric approach to spatiotemporal path segmentation. *Spatial Cognition and Computation: An Interdisciplinary Journal*, 11, 1-27.

- Maguire, M. J.**, White, J., & Brier, M. R. (2011). How semantic categorization influences inhibitory processing in middle-childhood: An Event Related Potentials study. *Brain and Cognition*, *76*, 77-86.
- Maguire, M. J.**, Brier, M. R., & Ferree, T. C. (2010). Differences in EEG theta and alpha responses reveal qualitative differences in processing taxonomic and thematic semantic relationships. *Brain and Language*, *114*, 16-25.
- Maguire, M. J.**, Hirsh-Pasek, K., Golinkoff, R. M., Imai, M., Haryu, E., Vengas, S., Okada, H., Pulverman, R., & Sanchez-Davis, B. (2010). A developmental shift from similar to language specific strategies in verb acquisition: A comparison of English, Spanish, and Japanese. *Cognition*, *114*, 299-319.
- Brier, M. R., Ferree, T. C., **Maguire, M. J.**, Moore, P., Tillman, G. D., Hart, J., & Kraut, M.A. (2010). Frontal theta and alpha power and coherence changes are modulated by semantic complexity in a go/nogo task. *International Journal of Psychophysiology*, *78*, 215-224.
- Shipley, T. F., **Maguire, M. J.**, & Brumberg, J. (2010). Segmentation of event paths. *Journal of Vision*, *4*(8), 562.
- Tillman, G. D., Green, T. A., Ferree, T. C., Calley C. S., **Maguire, M. J.**, Briggs, R., Hart, J., Haley, R. W., & Kraut, M. A. (2010). Impaired response inhibition in ill Gulf War veterans. *Journal of Neurological Sciences*, *297*, 1-5.
- Krawczyk, D. C., McClelland, M. M. Donovan, C. E., Tillman, G. D., & **Maguire, M. J.** (2010). An fMRI investigation of cognitive stages in reasoning by analogy. *Brain Research*, *1342*, 63-73.
- Maguire, M. J.**, Brier, M. R., Moore, P. S., Ferree, T. C., Ray, D., Mostofsky, S., Hart, J., Jr. & Kraut, M. A. (2009). The influence of perceptual and semantic categorization on inhibitory processing as measured by the N2-P3 inhibitory responses. *Brain and Cognition*, *71*, 196-203.
- Maguire, M. J.**, Hirsh-Pasek, K., Golinkoff, R. M., & Brandone, A. (2008). Focusing on the relation: Fewer exemplars facilitate children's initial verb learning and extension. *Developmental Science*, *11*, 628-634.
- Brier, M. R., **Maguire, M. J.**, Tillman, G. D., Hart, J., & Kraut, M. (2008) Event-related potentials in semantic memory retrieval. *Journal of the International Neuroscience Society*, *14*, 815-822.
- Hart, J., Anand, R., Zoccoli, S., **Maguire, M.**, Gamino, J, Anand, R., King, R. & Kraut, M. A. (2007). Neural substrates of semantic memory. *Journal of International Neuropsychology Society*, *13*, 865-880.
- Key, A., Dove, G., & **Maguire, M. J.** (2005). Linking brainwaves to the brain: An ERP component primer. *Developmental Neuropsychology*, *27*, 183-216.

Golinkoff, R. M., Chung, H. L., Hirsh-Pasek, K., Liu, J., Bertenthal, B. I., Brand, R., **Maguire, M. J.**, & Hennon, E. A. (2002). Young children can extend motion verb labels to point-light displays. *Developmental Psychology*, 38, 604-615.

Just, M. A., Carpenter, P. A., **Maguire, M.**, Diwadkar, V. A., & McMains, S. (2001). Mental rotation of objects retrieved from memory: An fMRI study of spatial processing. *Journal of Experimental Psychology: General*, 130, 493-504.

Hirsh-Pasek, K., Hennon, E. A., Golinkoff, R. M., Pence, K., Pulverman, R., Sootsman, J., Pruden, S., & **Maguire, M. J.** (2001). Social attention need not equal social intention: From attention to intention in early word learning. *Brain and Behavioral Sciences*, 24, 1108-1109.

### **Book Chapters**

**Maguire, M. J.**, Ogiela, D., Magnon, G., Delarosa, B., & Sides, L. (2012). Developmental differences in noun-object and verb-action identification: An Event Related Potentials study. In A. Biller, E.Y. Chung, & A. E. Kimball (Eds.), *Proceedings of the Boston University Annual Conference on Language Development* (pp. 328-338). Somerville, MA: Cascadilla Press.

**Maguire, M. J.**, & Dove, G. O. (2008). Speaking of events: What event language can tell us about event representations and their development. In T. F. Shipley & J. Zacks (Eds.), *Understanding events: From perception to action* (pp. 193-220). New York: Oxford University Press.

Shipley, T. F. & **Maguire, M. J.** (2008). Geometric information for event segmentation. In T. F. Shipley & J. Zacks (Eds.), *Understanding events: From perception to action* (pp. 415-435). New York: Oxford University Press.

**Maguire, M. J.** (2007). Getting more action: Fewer exemplars facilitate verb extensions. In H. Chan, H. Jacob, & E. Kipia (Eds.), *Proceedings of the Boston University Annual Conference on Language Development* (pp. 418-429). Somerville, MA: Cascadilla Press.

Brandone, A., Golinkoff, R. M., Pulverman, R., **Maguire, M. J.**, Hirsh-Pasek, K., & Pruden, S. M. (2007). Speaking for the wordless: Methods for studying cognitive linguistic constructs in infants. In M. Gonzalez-Marquez, I. Mittelberg, S. Coulson, & M. Spivey (Eds.), *Methods in cognitive linguistics* (pp. 345-366). Amsterdam: John Benjamins.

**Maguire, M. J.**, Hirsh-Pasek, K., & Golinkoff, R. M. (2006). A unified theory of verb learning: Putting verbs in context. In K. Hirsh-Pasek & R. M. Golinkoff (Eds.), *Action meets word: How children learn verbs* (pp. 364-391). New York: Oxford University Press.

Molfese, D. L. **Maguire, M. J.**, Molfese, V. J., Pratt, N., Ratajczak, E. D., Fentress, L. F., & Molfese, P. J. (2005). Brain and language: Phonological, lexical,

syntactic and semantic disorders in children. In K. Brown (Ed.), *Encyclopedia of Language and Linguistics, 2<sup>nd</sup> Edition* (pp. 535-545). Oxford, England: Elsevier Ltd.

Pruden, S., Hirsh-Pasek, K., **Maguire, M. J.**, & Meyer, M. (2005). Foundations of verb learning: Infants form categories of path and manner in motion events. In A. Brugos, L. Micciulla & C.E. Smith (Eds.), *Proceedings of the Boston University Annual Conference on Language Development* (pp. 476-488). Somerville, MA: Cascadilla Press.

Molfese, D. L., Fonaryova-Key, A., **Maguire, M. J.**, Dove, G., & Molfese, V. J. (2005). Event-related evoked potentials (ERPs) in speech perception. In D. Pisoni (Ed.), *Handbook of speech perception* (pp.99-121). Oxford: Blackwell Publishers.

Hirsh-Pasek, K., Golinkoff, R. M., Hennon, E. A., & **Maguire, M. J.** (2004). Hybrid theories at the frontier of developmental psychology: The emergentist coalition model of word learning as a case in point. In G. Hall & S. Waxman (Eds.), *Weaving a lexicon* (pp. 173-204). Cambridge, MA: MIT Press

**Maguire, M. J.**, Hennon, E. A., Hirsh-Pasek, K., Golinkoff, R. M., Slutzky, C. B., & Sootsman, J. (2002). Mapping words to actions and events: How do 18-month-olds learn a verb? In B. Skarabela, S. Fish, & A. H. J. Do (Eds.), *Proceedings of the Boston University Annual Conference on Language Development* (pp. 371-382). Somerville, MA: Cascadilla Press.

### **Manuscripts Submitted**

Benitez-Barrera, C. & **Maguire, M.J.** (submitted June 2022; Requested revision submitted November 2022) Effects of competing noise and semantic constraint on cognitive control during sentence processing in young adults. A Preregistered Report. *Journal of Cognitive Neuroscience*.

Schneider, J., Poudel, S., Abel, A., & **Maguire, M.J.** (submitted September 22, 2022). Age and vocabulary knowledge differentially influence the N400 and theta responses during semantic retrieval. *Developmental Cognitive Neuroscience*.

Melamed, T., **Maguire, M.J.**, Ralph, Y.K., Poudel, S. & Abel, A.D. (submitted November 6, 2022). The power of the written word: Comparing word meaning inferencing from auditory and written modalities throughout grade school. *Journal of Speech, Hearing and Language Research*.

### **Manuscripts in Revision**

Denicola-Prechtl, K., Abel, A., & Maguire, M.J. (submitted July 25, 2022, revise resubmit decision received November 2022). What do children's errors tell

us about the strategies used during a word inferencing task?. *Journal of Experimental Child Development*.

Poudel, S. Denicola-Prechtl, K. Nelson, J., Behdoudi, M.H, Benitez-Barrera, C. Castro, S. **Maguire, M.J.** (October 20, 2022, Revision Requested Jan 2023). Rethinking household crowding and children's language environment. *Developmental Psychology*

### **Manuscripts in Preparation**

Ralph, Y. & Denicola-Prechtl, K., **Maguire, M.J.** (in progress). Children's self reported mental rotation strategy predicts task speed and accuracy. *Developmental Science*.

Farris, E.A., Berry, K.E., Sessler, R.M., Middleton, A.E., **Maguire, M.J.** & Odegard, T.N. (in progress). Modulation of the mismatch negativity by frequency of phoneme-grapheme correspondences for vowels in English during an audiovisual oddball task. *Language, Cognition and Neuroscience*

Behdoudi, M. H., Benitez-Barrera, C., Castro, S., & Maguire, M.J. (in progress). *Developmental changes in gamma and theta engagement during sentencing processing continue into early adolescence.*

### **Presentations**

#### **Papers.**

Sotomayor, C., Maguire, M.J., & Abel, A.D. (2020, November). The influence of the bilingual experience on word learning in school age children: An ERP study. *Society for the Neurobiology of Language*. Virtual presentation due to COVID-19.

Schneider, J., Abel, A.D., & Maguire, M.J. (2020, September) How children's brains integrate the words they know to learn the words they don't know. *Annual meeting of the FLUX Congress*, virtual presentation due to COVID-19.

Sotomayor, C., Maguire, M.J. & Abel, A. (2020, November). 11998: What Error Analysis Tells Us About Contextual Word Learning in School-Aged Bilingual Children. Proposal accepted at the Annual Convention of the American Speech-Language-hearing Association, San Diego, CA (convention canceled).

Maguire, M.J. (2020, November). 20072: How and why poverty influences brain and language development in the school years. Proposal accepted at the Annual Convention of the American Speech-Language-hearing Association, San Diego, CA (convention canceled).

Maguire, M.J., Schneider, J.M., Melamed, T., Ralph, Y.K., Poudel, S., Abel, A.D. (2020, June). Developmental changes in the timing and topography of



- theta power during sentence processing corresponds to reading comprehension abilities. *The 7<sup>th</sup> Annual meeting of the Neurolinguistics Summer School, Moscow Russia* (presented remotely due to COVID-19).
- Maguire, M.J., Ralph, Y., & Poudel, S. (2019, March). Using behavioral and brain measures of word learning to understand the SES vocabulary gap in grade school. Paper presented at *the Society for Research in Child Development, Baltimore, MD*.
- Schneider, J. M. & Maguire, M.J. (2019, March). Word learning and brain maturation contribute to vocabulary variability amongst low SES children. Paper presented at the *Society for Research in Child Development, Baltimore, MD*.
- Sotomayor, C., Abel, A., & Maguire, M.J. (2019, October). Differences in attention during word learning in school-aged monolinguals and bilinguals Paper presented at the. *Boston University Conference on Language Development, Boston, MA*.
- Schneider, J.M., Abel, A.D., & Maguire, M.J. (2017, October). Moving from unknown to known: Developmental differences and changes in neural oscillatory processing as a word is learned. Cognitive Development Society Bi-annual Conference. Portland, Oregon.
- Abel, A. D. & Maguire, M. J. (2014, November). *How the Brain Learns Words: An EEG Study of Online Word Learning in School-Age Children*. Paper presented at the annual conference of the American Speech-language Hearing Association. Orlando, FL
- Maguire, M. J., Ogiela, D., Magnon, G., Delarosa, B., & Sides, L. (2011, November). Developmental differences in noun-object and verb-action identification: An Event Related Potentials study. *Boston University Conference on Language Development*. Boston, MA.
- Ogiela, D., Egbert, R., Jeevakumar, V., & Maguire, M. J. (2011, November). Children's ERP responses to noun phrase and verb phrases. Paper presented at the American Speech Hearing-Language Association annual conference. San Diego, CA.
- Brier, M. R., Maguire, M. J., Ferree, T. C., Gleman, Y., Patel, R. H., Hart, J., & Krat, M. A. (2009, October). *Arithmetic fact recall and number comparison as revealed by event-related potentials*. Paper presented at the annual conference of the Society for Neuroscience, Chicago, IL.
- Maguire, M. J., White, J., Brier, M., Maio, M., Anand, R., Reagor, M. K., & Dove, G. (2009, April) *An ERP study of novel verb processing in young children*. Paper presented at the Society for Research in Child Development, Denver, CO.

Maguire, M. J., Hirsh-Pasek, K., Golinkoff, R. M., Mutsumi, I., Vangas, S., & Pulverman, R. (2009, April). *Language specific strategies to verb acquisition: A comparison of English, Japanese and Spanish*. Paper presented at the Society for Research in Child Development, Denver, CO.

Pulverman, R., Maguire, M. J., Hirsh-Pasek, K., Golinkoff, R. M. (2006, June). *On the beaten path: Multiple cues converge to make verb learning easier in Spanish*. Paper presented at the Biannual International Society for Infancy Research, Kyoto, Japan

Maguire, M. J. (2006, November). *Getting more action: Fewer exemplars facilitate verb extensions*. Paper presented at The Boston University Conference on Language Development, Boston, MA.

Hirsh-Pasek, K., Maguire, M.J., & Golinkoff, R. (2005, April). *Facilitating verb learning: A window onto what makes verb learning difficult*. Paper for the biennial conference of the Society for Research in Child Development, Atlanta, GA.

Maguire, M. J., Hirsh-Pasek, K., & Pruden, S. (2003, April). *The way you do that thing you do: Attention to path and manner in action words*. Paper presented at the biannual conference of the Society for Research and Child Development, Tampa, FL.

Pruden, S., Hirsh-Pasek, K., Maguire, M. J., & Meyer, M. (2003, November). *Foundations of verb learning: Infants form categories of path and manner in motion events*. Paper presented at Boston University Language Conference, Boston, MA.

Maguire, M. J., Hennon, E. A., Hirsh-Pasek, K., Golinkoff, R. M., Slutzky, C. B., & Sootsman, J. (2001, November). *Mapping words to actions and events: How do 18-month-olds learn a verb?* Paper presented at the annual conference of the Boston University Conference on Language Development, Boston, MA.

### **Posters.**

Denicola-Prechtl, K., Abbas, A., & Maguire, M.J. (2022, April). *Using children's errors to learn about word inferencing strategies*. Poster presented at the biannual Cognitive Development Society Conference. Madison, WI.

Behdoudi, M. H., Benitez-Barrera ,C., Castro, S., & Maguire, M.J. (2022, April). *Developmental changes in gamma and theta engagement during sentencing processing continue into early adolescence*. Poster presented at the biannual Cognitive Development Society Conference. Madison, WI.

- Melamed, T., Chalamalasetty, P. Castro, S., Beirnhout, K., & Maguire, M.J. (2022, April). What does it mean to learn a word and what is the best way to do it in grade school? Poster presented at the biannual Cognitive Development Society Conference. Madison, WI.
- Ralph, Y., Ahmed D.R., & Maguire, M.J. (2022, April). Using self-report to study mental rotation strategy in middle childhood. Poster presented at the biannual Cognitive Development Society Conference. Madison, WI.
- Benitez-Barrera, C. & Maguire, M.J. (2022, March). Neural cognitive basis of cognitive control during language processing in noise. AAS.
- Schneider, J., Abel, A. & Maguire, M.J. (2021, April). Individual learner abilities differential influence word learning success on the basis of socioeconomic status during the school years. SRCV Virtual Biennial Meeting.
- Franznick, C. Melamed, T., & Maguire, M.J. (2021, April). Developmental differences in neural engagement during word learning between late childhood and early adolescence. SRCV Virtual Biennial Meeting.
- Marzoratti, A., Ralph, Y., & Maguire, M.J. (2021, April). Increased exposure to environmental risk factors alters neural oscillatory activity during language learning. SRCV Virtual Biennial Meeting.
- Kmiecik, M.J., Kim, L.M., Maguire, M.J., Hart, J., & Krawczyk, D.C. (2020, March). The time course of meaning construction with varying expectation. Poster presented at the annual meeting of the *Cognitive Neuroscience Society*. San Diego, CA – presented online due to pandemic.
- Maguire, M. J., Schneider, J.M., Ralph, Y., Poudel, S., & Melamed, T.C. (2019, August). Temporal and topographical changes in theta power between middle childhood and adulthood during sentence comprehension. Poster presented at the annual meeting for the Neurobiology of Language Society. Helsinki, Finland.
- Schneider, J. M, Poudel, S. & Maguire, M.J. (2019, March). Exploring the complex relationship between SES and vocabulary in grade school. Poster presented at the bi-annual meeting of the *Society of Research in Child Development*, Baltimore, MD.
- Ralph, Y. K. & Maguire, M.J. (2019, March). Gender differences in maternal spatial language use with preschool and early school age children. Poster presented at the bi-annual meeting of the *Society of Research in Child Development*, Baltimore, MD.
- Melamed, T.C., Ralph, Y., & Maguire, M.J. (2019, October). The role of gamma in successful word learning in elementary school-aged children. Poster presented at the annual meeting of the *FLUX society*. New York, NY

- Poudel, S., Schneider, J.M., Ralph, Y.K., & Maguire, M.J. (2019, October). How much sleep is enough sleep? Effects of self-reported sleep hours on brain functions in school-aged children. Poster presented at the annual meeting of the *FLUX Society*. New York, NY.
- Ralph, Y., Schneider, J., & Maguire, M. J. (2018, October). Socioeconomic Status (SES) differences in children's N400 responses when learning new words from linguistic context. *Society for the Neurobiology of Language*, Quebec.
- Tharp, E., Schneider, J.M., Ralph, Y., & Maguire, M.J. (2018, October). Lower beta suppression during early verb learning. *Society for the Neurobiology of Language*, Quebec.
- Schneider, J.M. & Maguire, M.J. (2018, October). Developmental differences in the neural mechanisms supporting natural sentence comprehension. *Society for the Neurobiology of Language*, Quebec.
- Schneider, J.M. & Maguire, M.J. (2018, September). The poor do poorer: how coming from a low-income home impacts brain and language development. Poster for the FLUX Society Conference, Berlin, Germany.
- Gallengos, E., Schneider, J., Lopez, M., Ralph, Y., & Maguire, M.J. (2018, March). The relationship between a chaotic home environment and language processing in children. *Cognitive Neuroscience Society*, Baltimore, MD.
- Lopez, M., Schneider, J.M., Abel, A.D., Poudel, S. & Maguire, M.J. (2017, October). The influence of memory on word learning in bilingual children. *Cognitive Development Society Bi-annual Conference*. Portland, Oregon.
- Poudel, S. & Maguire, M.J. (2017, October). The complex relationship between socioeconomic status and word learning in grade school: How school quality factors in. *Cognitive Development Society Bi-annual Conference*. Portland, Oregon
- Ralph, Y. , Maguire, M.J., & Rojas, R. (2017, October) The influence of gender and language on Spanish-English bilingual kindergarten and first grade children's use of social words and clout. *Cognitive Development Society Bi-annual Conference*. Portland, Oregon
- Schneider, J.M. & Maguire, M.J. (2017, October). Socioeconomic status differences in children's resting state EEG are correlated to vocabulary size. Poster for the Many Paths to Language conference, Max Planck Institute for Psycholinguistics, Nijmegen, The Netherlands.

- Schneider, J.M., Abel, A.D. & Maguire, M.J. (2017, April). Knowing when you don't know: How perceived confidence may contribute to the vocabulary gap. Poster for the Society of Research in Child Development, Austin, Texas.
- Schneider, J.M., Maguire, M.J., & Abel, A.D. (2017, April). Developmental differences in neural oscillations reveal role of prediction in noun and verb learning. Poster for the Society of Research in Child Development, Austin, Texas.
- Ralph, Y., Maguire, M.J., & Rojas, R. (2017, April). Socialized gender differences in language use in kindergarteners and first graders, Poster for the Society of Research in Child Development, Austin, Texas.
- Schneider, J.M., Wood, M., Quezada, H., & Maguire, M.J. (2017, March). Using coherence to tap into the untapped brain. Poster for the Society of Applied Multivariate Research, San Antonio, Texas.
- Abel, A.D., Schneider, J.M., & Maguire, M.J. (2016, August). Changes in neural oscillations provide insight into the engagement of cognitive processes during word learning. Poster for the Society for the Neurobiology of Language Conference, London, England.
- Schneider, J.M., Maguire, M.J., & Abel, A.D. (2016, August). *Alpha power reflects prediction differences in learning of nouns and verbs*. Poster for the Society for the Neurobiology of Language Conference, London, England.
- Zeller, A., Abel, A.D., Schneider, J., Sharp, B., & Maguire, M.J.. (2015, October) *Surrounding linguistic context influences the role of neural oscillations underlying word learning*. Society for the Neurobiology of Language, Chicago, IL.
- Ralph, Y., Schneider, J.M., & Maguire, M.J. (2015, October) *The interaction of imageability and word class during semantic retrieval*. Society for the Neurobiology of Language, Chicago, IL.
- Schneider, J.M., Abel, A.D. & Maguire, M.J. (2015, October) *Developmental differences in neural oscillations supporting online sentence processing*. Society for the Neurobiology of Language, Chicago, IL.
- Middleton, A.E., Vesper, F., Schneider, J.M. & Maguire, M.J. (2015, October) Developmental differences in the modulation of theta during semantic inhibition tasks. Society for the Study of Human Development, Austin, TX
- Pavuluri, A., Middleton, A.E., Schneider, J. M., & Maguire, M.J. (2015, October). Theta oscillations for retrieving semantically related versus unrelated information in children. Society for the Study of Human Development, Austin TX

- Maguire, M.J., & Abel, A. D. (2014, August) *Theta and beta changes related to learning new words from linguistic context*. Annual meeting of the Society for Neurobiology of Language, Amsterdam, NL.
- Schneider, J. M., Maguire, M. J. (2014, August). Neural oscillations provide insight into developmental differences between children and adults during auditory sentence processing. Annual meeting of the Society for Neurobiology of Language, Amsterdam, NL.
- Maguire, M.J. & Abel, A. D. (2013, November). N400 evidence of word learning from context in adolescent children. Society for the Neurobiology of Language, San Diego, CA November, 2013.
- Schneider, J. M., Abel, A.D., McCord, J. & Maguire, M. J (2013, November). Changes in neural oscillations during naturally-paced sentence processing. Society for the Neurobiology of Language, San Diego, CA November, 2013.
- Naqvi, F., Abel, A., Kim, A., & Maguire, M.J. (2013, November). Differences between nouns and verbs in an elicited-response task. American Speech Hearing-Language Association. Chicago, IL. November 2013.
- Kim, A. Abel, A., Naqvi, F., & Maguire, M.J. (2013, November). Word frequency and semantic retrieval in nouns and verbs. American Speech Hearing-Language Association. Chicago, IL. November 2013.
- Fitzhugh, A., Magnon, G., Abel, A. & Maguire, M.J. (2013, November). Improving developmental EEG with eye-tracking. American Speech Hearing-Language Association. Chicago, IL. November 2013.
- Konishi, H., Wilson, F., Golinkoff, R.M., Maguire, M.J., & Hirsh-Pasek, K. (2013, April). Japanese-English bilingual children's' construal of novel verbs. Poster for the biannual Society for Research in Children Development Conference. Seattle, WA.
- Maguire, M.J., Ogeila, D., Magnon, G. & Scheinder, J. (2013, April). Neuronal correlates of grammatical processing in SLI and typical children provides insights about working memory in language comprehension. Poster for the biannual Society for Research in Children Development Conference. Seattle, WA.
- Schenider. J., Jackson, M., Ogiela, D., Magnon, G., & Maguire, M.J. (2013, April). Time frequency analysis of the time-locked EEG signal reveals left hemisphere theta activity during semantic retrieval in children. Poster for the biannual Society for Research in Children Development Conference. Seattle, WA.

- Ogiela, D., Maguire, M. J., & Magnon, G. (2012, November). *Grammaticality judgments of sentences containing morphological errors in SLI*. The annual conference of the American Speech-language Hearing Association. Atlanta, GA.
- Delarosa, B., Maguire, M.J., Sides, L. & Magnon, G. (2011, November). *An EEG time frequency analysis of noun-object and verb-action identification*. Poster presented at the Neurobiology of Language Society Annual Conference, Annapolis, MD.
- Delarosa, B. & Maguire, M.J. (2011, November). *Theta and Alpha Changes during a Word-Picture Matching Task*. Poster presented at the Society for Neuroscience annual conference, Washington DC.
- Maguire, M. J., Brier, M., & White, J. J. (2011, April). *The influence of abstract categorization on inhibitory processes in middle childhood: An event related potentials study*. Poster presented at the biannual conference of the Society for Research in Child Development, Montreal, Canada.
- Salinas, M., Jantz, T., Rao, N., Maguire, M. J. Brier, M., Hart, J., Chapman, S., Gamino, J., & Motes, M. (2011, April). *The effects of strategic reasoning training on response inhibition*. Poster presented at the annual conference of the Cognitive Neuroscience Society, San Francisco, CA.
- Anand, R., Chiang, H-S., Kraut, M., Bartz, E., Maguire, M. J., & Hart, J. (2011, April). *Effects of semantics on inhibitory processing in aging*. Poster presented at the annual conference of the Cognitive Neuroscience Society, San Francisco, CA.
- Rao, N., Jantz, T., Salinas, M., Brier, M. Maguire, M. J., Hart, J., Chapman, S., Gamino, J., & Motes, M. (2011, April). *The role of semantic processing in response inhibition among adolescents with ADHD*. Poster presented at the annual conference of the Cognitive Neuroscience Society, San Francisco, CA.
- Maguire, M. J. Ogiela, D., & Egbert, R. (2010, November). *A picture is worth 1000 words, sometimes: ERP differences in nouns and verbs during a picture identification task*. Poster presented at the annual conference of the Society of the Neurobiology of Language, San Diego, CA.
- Ogeila, D., Maguire, M .J., & Dollaghan, C. (2010, November). *ERP differences in Noun Phrase and Verb phrase processing*. Poster presented at the annual conference of the Society of the Neurobiology of Language, San Diego, CA.
- Ogeila, D., Maguire, M. J., & Dollaghan, C. (2010, May). *Methodological considerations for the study of morphosyntactic processing in children with specific language impairments using event-related potentials:*

- Stimulus development and adult pilot study results.* Poster presented at the annual conference for the *Society for Research in Child Language Development*.
- Brier, M. R., Maguire, M. J., Jajal, N.J., Ferree, T.C., Hart, J., & Kraut, M. (2010, April). *The influence of left to right number representations on number comparison.* Poster presented at the annual conference of the Cognitive Neuroscience Society, Montreal, Canada.
- Kraut, M., Brier, M., Maguire, M. J., Ferree, T., Hart, J. (2010, April). *Frontal theta and alpha power and coherence changes are modulated by semantic complexity in go/nogo tasks.* Poster presented at the annual conference of the Cognitive Neuroscience Society, Montreal, Canada.
- Maguire, M. J., White, J., & Brier, M. R. (2010, April). *The interaction of inhibition and conceptual-semantic processing in children as measured by the N2-P3 response during three Go-NoGo tasks.* Poster presented at the annual conference of the Cognitive Neuroscience Society, Montreal, Canada.
- Tillman, G. D., Green, T. A., Ferree, T. C., Calley, C.S., Maguire, M.J., Hart, J., Haley, R.W., & Kraut, M. (2010, April). *Impaired response inhibition in ill Gulf War Veterans.* Poster presented at the annual conference of the Cognitive Neuroscience Society, Montreal, Canada.
- White, J., Brier, M. R., Egbert, R., Motes, M. A. Hart, J. Jr., Kraut, M. A., & Maguire, M. J. (2010, April). *Electrophysiological correlates of individual differences in mental arithmetic and number comparisons observed in middle school children.* Poster presented at the annual conference of the Cognitive Neuroscience Society, Montreal, Canada.
- Lugo, M., Brier, M. R., Maguire, M. J., & Hart, J. (2010, April) *The number 0 is processed differently in mental multiplication: An ERP study.* Center for Brain Health Reprogramming the Brain Symposium, Dallas, TX
- Jajal, N. J., Brier, M. R., Maguire, M. J., & Hart, J. (2010, April). *Eye-tracking provides insight into how arithmetic order of operations are processed.* Center for Brain Health Reprogramming the Brain Symposium, Dallas, TX
- Patel, R. H., Brier, M. R., Maguire, M. J., Kraut, M. A., & Hart, J. (2010, April). *BA6 is preferentially involved in semantic retrieval judgments: An ERP study.* Center for Brain Health Reprogramming the Brain Symposium, Dallas, TX
- Anand, R., Motes, M. A., Maguire, M. J., Moore, P. S., Chapman, S. B., & Hart, J. (2009, October). *Neural basis of abstracted meaning.* Poster presented at the annual conference of the Society of the Neurobiology of Language, Chicago, IL.



- Ferree, T., Brier, M., Maguire, M. J., & Spence, J. (2009, June). *Space-Time-Frequency analysis of EEG data in semantic inhibition: Control of false positives in single subjects*. Poster presented at the annual Conference on Human Brain Mapping. San Francisco, CA.
- Maguire, M. J., Reagor, M. K., White, J., Brier, M. R., Elliott, S. M., Elliott, M. R., & Maio, M. (2009, April). *An ERP study of the neurological processes underlying thematic and categorical relationships in young children*. Poster presented at the annual conference of the Society for Research in Child Development, Denver, CO.
- White, J., Maguire, M. J., Miao, M., Brier, M., & Moore, P. (2009, April) *An ERP study of ultra-rapid superordinate categorization in children and adults*. Poster presented at biannual conference for the Society for Research in Child Development, Denver, CO.
- Brier, M. R., Maguire, M. J. Moore, P. S., Gelman, Y., Kraut, M. A., & Hart, J. (2008, November). *N2 amplitude is modulated by semantic complexity in an inhibition task*. Poster presented at the annual conference for the Society for Neuroscience, Washington, D.C.
- Krawczyk, D., McClelland, M. M., Donovan, C., Tillman, G. & Maguire, M. J. (2008, November). *Neural basis of reasoning by analogy*. Poster presented at the annual conference for the Society for Neuroscience, Washington, D.C.
- Anand, R., Maguire, M. J., Chapman, S. B., & Hart, J. (2008, April). *Seeing the forest and the tress: Exploring the neurological underpinnings of gist and detail processing*. Poster presented at the annual conference of the Cognitive Neuroscience Society, San Francisco, CA.
- Brier, M., Ferree, T., Maguire, M. J., Tillman, G., Xavier, P., Hart, J., & Kraut, M. (2008, April). *Neural oscillations in semantic object retrieval*. Poster presented at the annual conference of the Cognitive Neuroscience Society, San Francisco, CA.
- Maguire, M. J., Reagor, M. K., Anand, R., Sandgren, S., & Elliott, M. (2008, April). *Grammaticality influences the N400 to novel verbs*. Poster presented at the annual conference of the Cognitive Neuroscience Society, San Francisco, CA
- Reagor, M. K. & Maguire, M. J. (2008, April). *Electrophysiological measures for remembered, ignored and novel words in a strategic learning task*. Poster presented at the annual conference of the Cognitive Neuroscience Society. San Francisco, CA.
- Anand, R., Maguire, M. J., Chapman, S. B., & Hart, J. (2008, February). *Gist-based and detail-based processing of information: Effects of normal cognitive*

- aging. Poster presented at the Annual conference of the International Neuroscience Society, Waikoloa, Hawaii.
- Brier, M., Maguire, M. J., Tillman, G., Kraut, M., & Hart, J. (2008, February). *Neurophysiological marker in semantic object retrieval*. Poster presented at the Annual conference of the International Neuroscience Society, Waikoloa, Hawaii.
- Maguire, M. J., Reagor, M. K., Tillman, G., Calley, C., Gamino, J., Brier, M., & Hanten, G. (2008, February). *The neurological underpinnings of individual differences in learning: Relating ERP responses to self-reported learning strategies*. Poster presented at the Annual conference of the International Neuroscience Society, Waikoloa, Hawaii.
- Maguire, M.J., Sanchez-Davis, B., & Vanegas, S. (October 2007). *In a manner of speaking: Verb learning patterns in English, Spanish and Japanese Preschoolers*. Poster presented at the Cognitive Development Society Conference. Sante Fe, N.M.
- Vanegas, S. & Maguire, M.J. (October 2007). *Theory of mind, inhibition and language: One process or many?* Poster presented at the Cognitive Development Society Conference. Sante Fe, N.M.
- Maguire, M.J., Hirsh-Pasek, K., Golinkoff, R.M. (2006, June). *Less is more in verb learning: Fewer exemplars facilitate novel verb*. The Biannual International Society for Infancy Research, Kyoto, Japan
- Maguire, M. J. & Dove, G. O. (2005, February). *An ERP study of imageability and syntactic processing*. A poster for the annual conference of the International Neuropsychological Society, St. Louis, MO.
- Maguire, M. J. & Dove, G. O. (2005, April). *Imageability and grammatical class in noun and verb learning: An ERP study*. Poster for the biennial conference of the Society for Research in Child Development, Atlanta, GA.
- Maguire, M.J. & Dove, G.O. (2005, October). *The neurological correlates of grammatical class and imageability development*. Poster presented at the annual conference of the Cognitive Development Society, San Diego, CA.
- Maguire, M. J., Pruden, S. M., Hirsh-Pasek, K., Meyer, M. & Hansell, N. (2004, April). *Two-year-olds use grammar to learn novel verbs*. Poster presented at the biennial conference of the International Society on Infant Studies, Chicago, IL.
- Maguire, M. J., Pruden, S.M., Hirsh-Pasek, K., Hansell, N. & Meyer, M. (2004, April). *More isn't always better: Three-year-olds master intransitive verbs*. Poster

- presented at the biennial conference of the International Society on Infant Studies, Chicago, IL.
- Pruden, S. M., Maguire, M. J., Meyer, M. A., Hansell, N., & Hirsh-Pasek, K. (2004, April). *Categorization of path and manner in infancy: Building a conceptual foundation for verb learning*. Poster presented at the biennial conference of the International Society on Infant Studies, Chicago, IL.
- Shiple, T. F., Maguire, M.J., & Brumberg, J. (2004, May). *Segmentation of objects and event paths*. Poster presented at the annual Society for Vision Sciences Conference, Sarasota, FL.
- Mosley, M. J., Molfese, D., Maguire, M. J., Dove, G. O., Fonaryova-Key, A, & Hacet, D. (2004, November). *ERPs with young children using cochlear implants*. Poster presented at the annual American Speech Language Hearing Association Conference, Philadelphia, PA.
- Maguire, M. J., Meyers, M., & Salkind, S. (2003, April). *Keeping it simple: Mapping words onto actions*. Poster presented at the biannual conference of the Society for Research in Child Development, Tampa, FL.
- Shiple, T. S., Maguire, M. J., & Brumberg, J. (2003, November). *Top down effects on search for biological motion*. Poster presented at the 44<sup>th</sup> annual conference of the Psychonomics Society, Vancouver, BC.
- Kovacs, S. L., Maguire, M. J., & Newcombe, N. S. (2002, April). *Young infants' ability to use "what" information when the salience of "where" information is reduced*. Poster presented at the biannual conference of the International Conference on Infant Studies, Toronto, Canada.
- Salkind, S. J., Sootsman, J. L., Golinkoff, R. M., Hirsh-Pasek, K., & Maguire, M. J. (2002, April). *Lights, camera, action! Infants and toddlers create action categories*. Poster presented at the biannual conference of the International Conference on Infant Studies, Toronto, Canada.
- Maguire, M.J., Hennon, E.A., Slutzky, C.B., & Golinkoff, R.M. (2001, April) *Infants' development of lexical categories: Moving from perceptual to social cues*. Poster presented at the biannual conference of the Society for Research in Child Development, Minneapolis, MN.
- Hennon, E. A., Hirsh-Pasek, K., Golinkoff, R. M., Rocroi, C., Arnold, K., Maguire, M. J., Baker, S. & Driscoll, K. (2000, July). *From proper nouns to categories: Infants learn how words work*. Poster presented at the biannual conference of the International Conference on Infant Studies, London, England.

**Conference Abstracts Accepted**

## **Conference Abstracts Submitted**

### **Invited Talks.**

Maguire, M.J. & Ralph, Y. (2021, January). Addressing Equity Issues through Playful Learning: How poverty impacts brain development and implications. *Finding Joy Through Playful Learning Virtual Conference*. Pittsburgh Playful Collaborative.

Maguire, M.J. (2019, January). *Using Event Related Potentials (ERPs and neural oscillations) to study developmental changes in language comprehension and word learning*. University of Arizona.

Maguire, M.J. (2012, April). *Overcoming semantic and syntactic difficulties to master verbs*. University of Texas at Arlington.

Maguire, M.J. (2011, March). *Verb Acquisition: Behavioral, Electrophysiological and Cross-Linguistic Evidence of Why it is Hard to Do*. University of Kansas.

Maguire, M.J. (2009, April). Using EEG to Study the Development of Semantic Knowledge. Scientists Brown Bag Lecture Series. Center for BrainHealth, University of Texas at Dallas.

Maguire, M.J. (2008, March). *A developmental shift from universal to language-specific strategies for verb acquisition: A comparison of English, Spanish, and Japanese*. Presented at the University of Chicago. Chicago, IL.

Maguire, M.J. (2008, February). *Attention Deficit Disorder and the Brain*. Owners Guide to the Brain Lecture Series. The Center for BrainHealth University of Texas at Dallas.

Golinkoff, R. M., Hirsh-Pasek, K., Maguire, M. J., Pulverman, R., & Pruden, S. (2005, August). *A rose is a rose but a scene is not a scene: Language encodes events differently*. Presented at Leigh University.

## **Grant Support**

### **Under Review.**

NSF Engine: Type 1 Eliminating Disparities in School Readiness through Educational Technology Tools and Infrastructure (EDRETI)

Funding Agency: NSF

Amount: \$1,000,000 over 2 years

PI: Mandy Maguire CoPIs: John Hansen, Marjorie Zielke

Dates: 9/1/2023-8/30/2025

Goal: Build regional growth in North Texas by creating and scaling innovative technology to address disparities in school readiness related to poverty.

**Funded.**

**Current Research**

2048507 NSF REU: "CCF REU Site: Culturally responsive research in developmental science"

Funding Agency: NSF

Amount: 325,000 over 3 years

PI: Mandy J Maguire; Co-I: Margaret Owen

Dates: 8/15/2021-9/31/2024

The primary goal of UTD's Center for Children and Families Research Experience for Undergraduates (CCF REU) is to provide, through a year of mentoring and hands-on training, 30 students (10 per year) from historically underrepresented groups the necessary tools to conduct high-quality research with real-world applications with families that are challenging-to-study, vulnerable, and underrepresented in the developmental science literature. Thus, the project will advance the field of developmental science by increasing diversity in both the researchers and the children who are researched.

**Completed Research**

NSF 1551770

Title: "How poverty impacts brain and language development: Understanding the vocabulary gap"

Funding Agency: NSF

Amount: \$515,000 in direct costs

Dates: 4/1/2016-3/31/2020

1R03HD064629-01

Funding Agency: NIH/NICHD

Title: "Improving developmental visual EEG with eye tracking"

Principal Investigator(s): Mandy J. Maguire

Amount: \$50,000 over 1 year

Major goals: To effectively link eye tracking and EEG data collection in real-time to improve EEG data collection in children.

Dates: 9/1/2010 – 8/31/2011

Title: "Establishing Neurological Markers of Inhibition for ADHD Diagnosis and Treatment Assessment"

Principle Investor: Mandy J. Maguire

Funding Agency: UT Southwestern's Department of Clinical Sciences North and Central Texas Clinical and Translational Science Initiative

Amount: \$24,000 over 1 year

Major goals: To use Event Related Potentials (ERPs) to establish neurological makers of inhibitory processes for normally developing adolescents and those with ADHD

Dates: 5/30/08-5/30/09

Title: "Syntactic event related potentials in children with specific language impairment"

Principle Investor: Diane Ogiela

Role: Mentor

Funding Agency: UT Southwestern's Department of Clinical Sciences North and Central Texas Clinical and Translational Science Initiative

Amount: \$30,560 over 1 year

Major goals: To uncover biological correlates of language processing deficits in children with specific language impairment, specifically comparing noun phrase and verb phrase processing differences.

Dates: 3/01/00-2/28/09

Title: "Center for Advanced ADHD Research, Treatment and Education (CAARTE)"

Principal Investigators: Collaboration between UTSW, UTD and Shelton School

Funding Agency: Sparrow Foundation

Amount: \$3 million over 3 years

Major Goals: This project aims to (1) identify children in early phases of ADHD to develop preschool interventions with parents and adults to reduce or eliminate the need for medication, (2) compare the effectiveness of two non-medical interventions with Routine Clinical Practices on ADHD behaviors, and (3) measure changes in brain activation using ERP and fMRI longitudinally and in relation to specific interventions in children with ADHD compared to age/sex-matched controls.

Dates: January 1, 2007 – December 31, 2010

Title: The Gulf War Project: EEG and ERP Core

Principle Investigators: John Hart, Jr.

Role: Co-investigator

Funding Agency: Department of Veterans Affairs

Amount: \$5 million over 5 years

Major Goals: This project aims to study the neurological ramifications of Gulf War Syndrome both in terms of structure (white matter density, conductivity, etc.) and processing (BOLD response, neurophysiology, etc). The goal of the EEG core is to investigate the neurophysiological processes in patients suffering from Gulf War Syndrome. My particular part is in designing and overseeing projects implementing Event Related Potentials as the primary methodology.

Dates: September 2007 – September 2011

Title: "Word Retrieval Project"

Principle Investigators: John Hart, Jr. & Mandy J. Maguire

Sponsor: UTSW/Department of Veteran Affairs

Amount: \$221,992 for 1 year

Major Goals: This project specifically using fMRI and EEG to investigate word finding difficulties associated with Gulf War Syndrome.

Dates: 2008-2009.

**Internal Funding. UTD**

BBS Preliminary Data (Research) Funding

Understanding language differences in primarily Spanish speaking 3 year olds experiencing poverty

Total Amount: \$15,000

Time: December 2021-December 2022.

BBS Equipment Grant

Mobile EEG System Request

Total Amount: \$20,700.00

Time: December 2021

UTD Social Sciences Grant

UTD Prep Grant.

**Professional Awards and Recognition**

**BBS Undergraduate Teaching Award Winner: 2022**

**Provosts Award for Faculty Excellence in Undergraduate Research Mentoring, Nominee 2018, 2019, 2021**

**University of Texas Regents's Outstanding Teaching Award Nominee**

April 2015

**American Speech-Language-Hearing Association's Grant Review-Reviewer Training Workshop**, covered travel and conference fees.

Received: July 2014

**University of Texas at Dallas Distinguished Teacher in Diversity and Multicultural Education**

Received: May 2011

**American Speech-Language-Hearing Association's Lessons for Success Award**, covered travel and conference fees.

Received: February 2008

**The Sandy Friel-Patti Research in Child Language International Travel Award** from the Texas Speech-language and Hearing Association  
Received: March 26, 2006

**Early Career Research Travel Award** from The Aprica Foundation of Japan in conjunction with the International Society for Infancy Research  
Received: June 22, 2006

#### **Awards to students**

**UTD Behavioral and Brain Sciences Best Dissertation Award** – student is awarded a plaque and \$1500.

**2018:** Julie Schneider (Psychological Sciences) “Identifying differences in the neural correlates underlying semantic and syntactic development.”

**UTD Undergraduate Research Scholarship Awards** - provides funds to complete a year-long undergraduate research project

Year: Student (major), Project Title

**2019:** Analia Marzoratti (neuroscience) “Greater numbers of environmental risk factors increase processing difficulties in EEG measures of language learning in children” \*\* Also won **national recognition** with the FABBS (Federation of Associations in Behavioral & Brain Sciences) 2020-2021 Undergraduate Research Excellence Award

Manju Shanmugasundaram (biochemistry) “Differences between word learning performance in 14 to 15-year old children”

**2018:** Vyom Raval (neuroscience) “Everybody has their relations” \*\* **Semifinalist** in the poster competition

**2017:** Henry Quezada (neuroscience) “Neuronal connectivity differences between low and middle socioeconomic children”

**2014:** Adriana Ribeiro (speech pathology and audiology) “How differences in methodological design influence the outcomes of word learning from linguistic context tasks”

**2013:** Jagger McCord (*computer science*) “Mining behavioral data and applying new data analysis techniques to existing EEG data”

**2011:** Lauren Houston (*neuroscience*) “A Time frequency analysis of specific language impairment”

**2009:** Emily Vutam (*neuroscience*) “Gender differences in semantic inhibition: Behavioral and Electrophysiological data”

**2008:** Joshua White (*neuroscience*) “An ERP study of ultra-rapid superordinate categorization in children and adult”



### **Buhrmester Undergraduate Research Award**

**2013:** Angela Kim (*speech pathology and audiology*) and Fizza Naqvi (*neuroscience*)

### **Federation of the Associations in Behavioral and Brain Sciences Undergraduate Research Excellence Award**

**2021:** Analia Marzoratti "Increased exposure to environmental risk factors alters neural oscillatory activity during language learning in children."

### **SPUR Summer Program for Undergraduate Research**

**2022:** Krishna Yalavarthy (Psychology). "Does birth order negatively affect younger siblings' vocabulary growth when compared to older siblings".

Reyes Veliz (Speech Language). "Spanish bilingualism not predictive of error type in word learning task."

## **Teaching Experience**

### **Classes.**

#### **Cognitive Development (graduate)**

University of Texas at Dallas, Spring '16, '18  
Estimated class size: 28

#### **Developmental Cognitive Neuroscience (undergraduate)**

University of Texas, Dallas, Spring '13 and '14  
Class size: 10-15 students

#### **Language Development (graduate)**

University of Louisville, Belknap Campus, Summer '04  
Estimated class size: 15 students  
University of Texas, Dallas, Spring '06 – current  
Estimated class size: 20-30 students

#### **Language Development (undergraduate)**

University of Texas, Dallas, Spring '06 – current  
Estimated class size: 130-180 students

#### **The Neurological Basis of Language Development (graduate)**

University of Texas, Dallas, Callier Center Campus, Fall '05, '06  
Class size: 8 students

#### **Lifespan Development**

University of Louisville, Belknap Campus, Spring '04  
Estimated class size: 200 students

#### **Developmental Psychology**

Temple University, Main Campus, Fall '99  
Temple University, Ambler Campus, Fall '00

Temple University, Center City Campus, Summer, '00, '02, '03  
Estimated class sizes: 30-40 students

### **Research Methods in Developmental Psychology**

Temple University Main Campus, Spring '02  
Temple University Ambler Campus, Fall '01, (co-instructor – Stacie Kovacs)  
Estimated class sizes: 20-30 students

### **Postdoctoral Fellows.**

Diane Ogiela (2008-2010). Current: associate professor Idaho State  
Alyson Abel Current (2012-2015): associate professor SDSU  
Carlos Benítez-Barrera (2020-current)

### **Graduate Students Advised.**

#### Dissertations

Lynda Sides. Current: Retired  
Anna Fitzhugh. Current: Research Scientist Scottish Rite Children's Hospital  
Julie Schneider. Current: Assistant Professor LSU  
Yvonne Ralph. Current: UTD 5<sup>th</sup> year Psychological Sciences  
Sonal Poudel. Current. UTD 5<sup>th</sup> year Communication Sciences and Disorders.  
Tina Melamed. Current: UTD 4<sup>th</sup> year Communication Sciences and Disorders.

#### Master's Theses

Sandra Vanagas  
Hatty Laura  
Analia Marzoratti

### **Defense Committees.**

#### Dissertations:

Previous: Jacquelyn Gamino, Kristi Buckley, Raksha Anand, Ariela Jokel, Carol Trautman, Lei Xuan, Katherine Sheppard, Amy Louise Schwarz, Blair Miller, Sarah Yu, Hsueg-Sheng Chiang, Katharine Fitzharris (AuD), Jana Mueller, Hannah Pourchot (CSD), Julie Fratantoni (CSD)

Current: Melissa Sherman (CSD), David Martinez (Cognition and Neuroscience), Matthew Kmiecik (Cognition and Neuroscience), Meredith Scheppele (CSD)

Master's Theses: Elva Alicia Granado, Virginia Chen

### **Service**

#### **Ad hoc Reviewer.**

Brain and Cognition  
Brain and Language  
Cognitive and Behavioral Neurology  
Cognitive Psychology  
Cognitive Science

Child Development  
Cognition  
Developmental Neuropsychology  
Developmental Psychology  
Journal of Child Language  
Journal of Speech, Language and Hearing Research  
Journal of Speech-Language Pathology  
Child Development Perspectives  
PlosOne  
Psychological Science  
International Society for Infancy Research Biannual Conference  
Neurobiology of Language (Journal)  
Neurobiology of Language (Conference), Summer 2009 & 2011  
SRCD Conference Reviewer, Fall 2012

Grant Reviews:

ASHA Researcher-Practitioner Collaborative Grants – Fal 2020  
SRCD Graduate Grants – Spring 2018  
NSF Developmental Science – 2016  
NSF Cognition and Perception - 2018

**University and School Committees**

- Spring 2002: Graduate Student Member of Temple University's Developmental Psychology Ph.D. admissions board.
- Fall 2006-2007, Fall 2012-present: Member of UTD's Committee for the Support of Diversity and Equity
  - Subcommittee on Data Collection and Reporting
- Fall 2006-Fall 2015: Member of the Callier Center Committee for Continued Improvement in Research.
  - Callier Postdoctoral Fellowship Hiring Committee (Chair).
- 2009-2010: BBS Colloquium Series Planner (co-chair)
- Fall 2012- Fall 2016†: BBS Excellence in Teaching Committee
- Fall 2012 – present: Communication Sciences and Disorders PhD program
  - Recruitment Committee (chair)
  - Admissions Committee
- Committee for Mid-probationary Reviews
  - Sven Kroener, Fall 2012
  - Chandramallika Basak, Fall 2013
  - Raúl Rojas, Fall 2014
- Tenure Review Committees
  - Robert Ackerman, Fall 2016
- Faculty Search Committees
  - Psychological Sciences, Fall 2013, Fall 2014
- BBS Academic Advisory Council Member 2015-2016
- IRB – 2017-2018 academic year
- CSD PhD recruiting committee, chair 2016- present
- Summer 2020-present: Human subjects post-COVID research reinstatement groups

- Fall 2020 BBS Undergraduate Research Matching Portal committee (co-chair)
- Summer 2020-present: BBS Committee on Equity, Justice and Inclusion
- Summer 2020: Teaching Assistantship Procedures and Guidelines Committee.
- Summer 2020 -present: Psychology IDEA (Inclusion, diversity and equity) Committee.
- Presenter:
  - Responsible Conduct in Research Series by the Office of Research "Responsibilities of Researchers to Society" – October 25, 2022.
  - Panelist: "NSF Research Experiences for Undergraduates" By the Office of Research – October 15<sup>th</sup>, 2022

### **Community Service**

- Fall 2000: Organized Temple University's Developmental Psychology graduate student orientation.
- Summer 2001: Held training sessions in cognitive development for volunteers at the Franklin Institute Science Museum, Philadelphia PA.
- Fall 2001: Organized Temple University's Developmental Psychology colloquium series.
- May 2004: Judge for undergraduate and graduate poster presentations, Kentucky Psychological Association.
- February 2008: Science fair judge, Vine High School, Plano, TX.
- March 2008: Presented "Using EEG as a tool to studying cognitive development" in the "Opportunities in Behavioral and Brain Sciences" series to promote diverse studies in high school students with a computer programming/science background
- November 2008: Spoke at Ennis Rotary about applications of brain research in various treatments.
- November 2008: Gave lab tour for potential undergraduates in BBS.
- March 2009: Gave Callier Preschool Staff Training session on early brain development and cognition.
- April 2010: Judge for poster session awards for the Reprogramming the Brain Symposium
- March 2010: Gave a talk for the Center for Children and Families Lecture Series
- April 2012, 2014: Judge for undergraduate student research fair at UTD.
- March 2013: Volunteer interviewer on UTD's Molding Doctors Mock Interview Day.
- July 2012, 2013, 2014: Presented to junior high and high school aged girls at the Women in Science camp for the Girl Scouts of North Texas at UTD to promote women in STEM careers
- June 2014: Presented at the Eureka Summer Camp for girls who are members of Girls, Inc, an after school and summer program for girls in poverty. The Eureka camp teaches underprivileged girls about career opportunities in STEM areas.

- June 2015 & 2016: Presented at UTD's College Journey Camp, which provides information about college and specifically STEM programs to girls who are likely to be the first in their family to attend college.
- June 2017: Presented to Parents at the Momentous Institute to talk about the impact of poverty on brain and language development and what parents can do to help their children overcome these problems.

***Professional Affiliations.***

Society for Research in Child Development

Neurobiology of Language

Cognitive Development Society