

Valerie L. Shafer

Work Address

Ph.D. Program in Speech-Language-Hearing Sciences
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Present Position: Professor, Ph.D. Program in Speech-Language-Hearing Sciences, City University of New York, The Graduate School and University Center.

Research Interests

The investigation of language processing in both first and second-language acquisition, with a focus on neurophysiological correlates. My specific interests include investigating 1) the relationship between speech processing abilities and language learning, 2) the relationship between brain development and language acquisition, 3) speech perception in second-language learning and 4) language development in children with autism

Teaching Interests

Neurophysiology of speech and language; Typical and disordered acquisition of speech and language; Second-language speech perception and language learning; Electrophysiological methods

Education

9/94	Ph.D. Linguistics	State University of New York at Buffalo, Buffalo, New York.
5/90	M.A. Linguistics	State University of New York at Buffalo, Buffalo, New York.
5/84	B.A. Linguistics	University of Rochester, Rochester, New York.

Professional Experience

2012-	Adjunct Researcher, Center For Advanced Study of Language (CASL), University of Maryland
2012-	Zukunftskolleg Senior Fellowship, University of Konstanz, Germany
2009-	Professor, Ph.D. Program in Speech-Language-Hearing Sciences, The Graduate School and University Center, City University of New York
2004-2009	Associate Professor, Ph.D. Program in Speech-Language-Hearing Sciences, The Graduate School and University Center, City University of New York
1999-2004	Assistant Professor, Ph.D. Program in Speech-Language-Hearing Sciences, The Graduate School and University Center, City University of New York
1995-2004	Visiting Assistant Professor of Otolaryngology, Albert Einstein College of Medicine
1995-1999	Assistant Professor, Speech-Language-Hearing Sciences, Hofstra University.
1994-1995	Post-doctoral Fellow, Speech and Hearing Sciences, CUNY, Graduate School, NY.

Awards and Honors

Sept, 2014	Alumni Ambassadors Club, University of Konstanz, Germany
July 15, 2014	Zukunftskolleg Senior Fellow Lecture Award
6/2014-7/2014	Zukunftskolleg Senior Fellowship, University of Konstanz, Germany
6/2012-7/2012	Zukunftskolleg Senior Fellowship, University of Konstanz, Germany
8/90-8/92	Cognitive Science Fellowship, Center for Cognitive Science, SUNY at Buffalo
8/87-5/90	University Presidential Fellowship, SUNY at Buffalo
7/89	LSA Summer Institute of Linguistics Fellowship
6/80	Bausch and Lomb Science Award (High School)

Dissertation Direction at The Graduate Center, CUNY (completed)

2002	Morr, Mara L. <i>Mismatch Negativity Elicited to Vowels in Children and Adults and its Association to Behavioral Performance.</i>
2003	Kessler, Kathy L. <i>ERP Correlates of Morphosyntactic and Word-Order Phenomena in Native Speakers and Second-Language Learners of English</i> (co-chair: Gita Martohardjono, Linguistics).
2004	Maxwell, Nathan. <i>Cortical Indices of Picture Name Encoding Times in Fluent and Stuttering Adults</i>
2007	Hisagi, Miwako. <i>ERP indices of native versus nonnative temporal speech processing in Japanese and English Listeners</i> (co-chair, Winifred Strange).
2007	Neuman, Yael. <i>ERP evidence of the effect of aging on lexical access</i> (co-chair with Loraine Obler).
2008	MacRoy (Higgins), Michelle. <i>Word learning and phonological representations in children who are late talkers</i> (co-chair with Richard Schwartz).
2009	Tropper (Epstein), Baila. <i>Cognitive control in children with and without specific language impairment</i> (co-chair, Richard Schwartz)
2010	Datta Hia, <i>ERP evidence of Interference effects on processing of first and second languages</i> (co-chair with Loraine Obler)
2010	Wagner, Monica. <i>Early and late stages of neural speech processing in native English and native-Polish listeners: A behavioral and ERP study</i>
2013	Garrido-Nag, Karen. <i>Neurophysiological indices of attention to sound in infants</i>
2013	Vivona, Anthea <i>Frequent elements in infant-directed speech in mothers at risk for post-partum depression</i>
2013	Tessel, Carol, <i>Speech perception of word cognates in Spanish-English bilinguals</i>

- 2013 Yu, Yan, *Neurodevelopmental basis of Chinese tone perception in native and non-native listeners*
- 2015 Gerometta, Jennifer, *Network modeling of the developing mental lexicon: Phonological links between and among lexical communities*
- 2015 Ionatta, Judith. *Neural measures of attention to vowel contrasts in children*
- 2015 Austin, Sarita. *Access to others' minds in two-year old children with Autism Spectrum Disorders*

In Progress

Marie Michelle Monereau *Patterns of Definite Article Use in the Heritage Language Among U.S. Born Heritage Speakers of Haitian-Creole*

Emily Zane, ERP indices of processing PATH and PLACE prepositions.

Nancy Vidal, *Neural indices of speech perception in bilingual children*

Vikas Grover, *Perception and Production of English /v/ and /w/ by Hindi second language users of English*

Jason Rosas, *Perception of complex onsets in dyslexia: the sonority hypothesis*

Sarah Kresh, *Neural correlates of number and number agreement in preschoolers*

Miscellaneous Research Supervision

Celine Khoo, Ossining High School, *Training English vowels in Spanish-English bilingual late-learning children*

Anne Gwinner, Doctoral Dissertation, University of Konstanz, Germany, Second Supervisor (first supervisor – Janet Grijzenhout) 2013 – present

Amanda Payne, Spring 2010 Internship, Marymont Manhattan College, New York, NY

Emily Sarita, Fall 2008-Spring 2009, Internship for Field Work Experience Program, NYCiSchool, NYC Public School, 131 Avenue of the Americas NY, NY 10013

Samantha Perez, Fall 2008-Spring 2009, Internship for Field Work Experience Program, NYCiSchool, NYC Public School, 131 Avenue of the Americas NY, NY 10013

Jason Muise, Fall 2008 Internship, Marymont College

Carla Frutos, 2008-present. Briarcliff High School, New York. Electrophysiological indices of sentence processing in Spanish-English bilingual children.

Arianna Belestrieri, Bronx High School of Science. *The processing of function words in early learners: An ERP study of bilingual adolescents*, Spring, 2002. Winner of The American Academy of Neurology's Neuroscience Award

Rubi Gulapi, Bronx High School of Science. *Electrophysiological indices of word learning*, Spring, 2000. Honorable Mention, Intel Science Competition

Public Dissemination

Shafer, V.L. (2009). Getting to grips with phonological skills. In "A vision of the future". *International Innovation. Disseminating Science, Research and Technology. August, 2009*, Pp. 28-30. www.researchmedia.eu.

Peer-reviewed Publications

Hisagi, M., Shafer, V.L., Strange, W. & Sussman, E. (2015). Perception of Japanese Consonant Length Contrast contrasts by Japanese and American English listeners: Behavioral and Electrophysiological Measures. *Brain Research*.

Shafer VL, Yu YH, Wagner M (2015). Maturation of cortical auditory evoked potentials (CAEPs) to speech recorded from frontocentral and temporal sites: Three months to eight years of age. *Int J Psychophysiol.* 95(2). 77-93. PMID: 25219893.

Hisagi M, Garrido-Nag K., Datta H. & Shafer, V.L. (2015) ERP indices of vowel processing in Spanish-English bilinguals. *Bilingualism: Language and Cognition*. DOI: 10.1017/S1366728914000170, Published online: 04 June 2014 pp 1 – 19.

Näätänen R, Sussman ES, Salisbury D, Shafer VL. (2014). Mismatch negativity (MMN) as an index of cognitive dysfunction. *Brain Topogr.* Jul;27(4):451-66. doi: 10.1007/s10548-014-0374-6. Epub 2014 May 17. PMID: 24838819 [PubMed - in process]

Sussman ES, Shafer VL.(2014) New perspectives on the mismatch negativity (MMN) component: an evolving tool in cognitive neuroscience. *Brain Topogr.* 2014 Jul;27(4):425-7. doi: 10.1007/s10548-014-0381-7. Epub 2014 Jun 15. No abstract available. PMID: 24929559 [PubMed - in process]

Neumann Y, Epstein B, Yu YH, Benasich AA, Shafer V. (2014). An electrophysiological investigation of discourse coherence in healthy adults. *Clin Linguist Phon.* Apr 29. [Epub ahead of print]. PMID: 24779648 [PubMed - as supplied by publisher]

Epstein B, Shafer VL, Melara RD, Schwartz RG (2014). Can children with SLI detect cognitive conflict? Behavioral and electrophysiological evidence. *J Speech Lang Hear Res.* Aug;57(4):1453-67. doi: 10.1044/2014_JSLHR-L-13-0234. PMID: 24686792 [PubMed - in process]

- MacRoy-Higgins, M., Shafer, V.L., Schwartz, R.G & Marton, K. (2014) The influence of phonotactic probability on early word learning. to *Child Language Teaching and Therapy*.(30)1. 117-130.
- Epstein B, Hestvik A, Shafer VL, Schwartz RG . (2013). ERPs reveal atypical processing of subject versus object Wh-questions in children with specific language impairment. *Int J Lang Commun Disord*. 48(4):351-65. doi: 10.1111/1460-6984.12009. Epub 2013 Apr 11. PMID: 23889832
- Wagner M, Shafer VL, Martin B, Steinschneider M. (2013). The effect of native-language experience on the sensory-obligatory components, the P1-N1-P2 and the T-complex. *Brain Res*. Jul 19;1522:31-7. doi:10.1016/j.brainres.2013.04.045. Epub 2013 May 2. PMID: 23643857
- MacRoy-Higgins, M., Schwartz, R. G., Shafer, V. L. and Marton, K. (2012). Influence of phonotactic probability/ neighbourhood density on lexical learning in late talkers. *International Journal of Language & Communication Disorders*. doi: 10.1111/j.1460-6984.2012.00198.x
- Shafer, VL, Yu, YH & Garrido-Nag, K. (2012). Electrophysiological indices of vowel discrimination in monolingually and bilingually exposed infants: Does attention matter. *Neuroscience Letters*..Sep 20;526(1):10-4. Epub 2012 Aug 9. PMID: 22897876
- Wagner, M. Shafer, VL, Martin B & Steinschneider, M. (2012). The phonotactic influence on the perception of a consonant cluster /pt/ by native English and native Polish listeners: A behavioral and event related potential (ERP) study. *Brain Lang*. Oct;123(1):30-41. Epub 2012 Aug 4. PMID: 22867752
- Shafer, V.L., Yu, Y & Datta, H. (2011). The Development of English Vowel Perception in Monolingual and Bilingual Infants: Neurophysiological Correlates *Journal of Phonetics* (Special Issue of Cross-linguistic speech perception). 39: 527-541. PMID22046059.
- Shafer, V.L. Martin, B., & Schwartz, R.G. Evidence of deficient central speech processing in children with specific language impairment: the T-complex. (2011). *Clinical Neurophysiology*. 122(6):1137-55. PMID 21147550.
- Hisagi, M., Shafer, V.L., Strange, W. & Sussman, E. 2010. Perception of Japanese Vowel Length Contrast contrasts by Japanese and American English listeners: Behavioral and Electrophysiological Measures. *Brain Research*. 1360: 89-105 PMID: 20816759.
- Shafer VL, Sussman E. (2010). *Predicting the future: ERP markers of language risk in infancy*. *Clin Neurophysiol*. 2011 Feb;122(2):213-4. doi: 10.1016/j.clinph.2010.07.001. Epub 2010 Jul 31. No abstract available. PMID: 20674485 [PubMed - indexed for MEDLINE]
- Shafer, V.L , Yu Y. & Datta H. (2010). Maturation of electrophysiological mismatch responses (MMR) to vowel contrasts in four to seven year-old children. *Ear and Hearing*. 31(6). 735-45.

- Datta H., Shafer, V.L., Morr, M.L., Kurtzberg, D & Schwartz, R.G. (2010.) Brain discriminative responses to phonetically-similar long vowels in children with SLI. *Journal of Speech Language Hearing Research*, 53(3), 757-777.
- Neumann, Y. Obler L.K., Gomes, H., Shafer, V.L. (In press). Phonological vs. sensory contributions to age effects in naming: An electrophysiological study. *Aphasiology*.
- Hestvik, A., Maxfield, N., Schwartz, R.G., & Shafer, V.L. (2007). Brain responses to ungrammatically filled gaps. *Brain and Language*. 100 (3), 301-16.
- Shafer, V.L., Ponton, C., Datta H., Morr, M.L. & Schwartz, R.G. (2007). Neurophysiological Indices of Attention to Speech in Children with SLI. *Clinical Neurophysiology* 118, 1230-1243
- Shafer, V.L., Morr, M.L., Datta H., Kurtzberg, D & Schwartz, R.G. (2005). Neurophysiological indices of speech processing deficits in children with specific language impairment. *Journal of Cognitive Neurosciences* 17, 1168-1180.
- Shafer, V.L., Kessler, K.L., Morr, M.L., Schwartz, R.G., & Kurtzberg, D. (2005). Electrophysiological indices of brain activity to "the" in discourse. *Brain and Language*. 93, 277-297.
- Shafer, V.L., Schwartz, R.G., & Kurtzberg, D. (2004). Language-specific memory traces of consonants in the brain. *Cognitive Brain Research*, 18. 242-254.
- Martin, B.A., Shafer, V.L., Mara L. Morr, M.L., Kreuzer J. A., & Kurtzberg D. (2003). Maturation of the mismatch negativity: A scalp current density analysis. *Ear and Hearing*. 24. 463-471.
- Morr, M.L., Shafer, V.L., Kreuzer, J., & Kurtzberg, D. (2002). Maturation of mismatch negativity in infants and pre-school children. *Ear and Hearing*. 23, 118-136.
- Shafer, V.L., Schwartz, R.G., Morr, M.L., Kessler, K.L., Kurtzberg, D. (2000). Deviant neurophysiological asymmetry in children with language impairment. *Neuroreport* 11, 3715-3718.
- Shafer, V.L., Morr, M.L., Kreuzer, J., & Kurtzberg, D. (2000). Maturation of mismatch negativity in school-age children. *Ear and Hearing*. 21(3). 242-251.
- Shafer, V.L., Shucard, D.W., & Jaeger, J.J. (1999). Cerebral specialization and the role of prosody in language acquisition in three-month-old infants. *Developmental Neuropsychology*, 15. 73-110.
- Shafer, V.L., Shucard, D.W., Shucard, J.L., & Gerken, L.A. (1998). An electrophysiological study of infants' sensitivity to the sound patterns of English. *Journal of Speech, Language, Hearing Research*, 41. 874-886.

Chapters and Proceedings

- Yan H. Yu, Naseem Choudhury, Chiara Cantiani, Valerie L. Shafer, Michelle MacRoy-Higgins, Richard G. Schwartz & April A. Benasich. Electrophysiological correlates of picture-word processing in three-to-seven year old non-verbal children with Autism. *Boston University Conference on Language Development (BUCLD) Proceedings. 2011*
- Schwartz, R.G. & Shafer, V.L. (2012) The Neurobiological bases of specific language impairment. In M. Faust (Ed.) *Advances in the Neural Substrates of Language: Toward a synthesis of basic science and Clinical Research*. Blackwell Wiley. pp. 847-867.
- Yu Y.H. & Shafer, V.L. (2011). Electrophysiological Indices of Six-month-olds' Sensitivity to English Vowles: Monolingual versus Bilingual. *Boston University Conference on Language Development (BUCLD) Proceedings. Vol 35*.
- Neumann, Y., Obler, L. K., Gomes, H., and Shafer, V. (2011). Phonological encoding in healthy aging: Electrophysiological evidence. In C. Cairns and E. Raimy (Eds.), *Syllable Volume X* Leiden, The Netherlands: Brill Academic Publishers.
- Shafer, V.L. (2010). The neurophysiology of phonetics and phonology. *Cambridge Encyclopedia of the Language Sciences*. (Ed. Patrick Colm Hogan.) Cambridge University Press.
- Strange, W. & Shafer, V.L. (2008). Speech perception in second language learners: the re-education of selective perception. Zampini, M., & Hansen, J. (eds). *Phonology and Second Language Acquisition*. John Benjamins. 1pp. 153-191.
- Shafer, V.L & Maxfield, N. Neuroscience methods. (2008). *The Handbook of Child Language Disorders* (R.G. Schwartz, Ed.). New York: Psychology Press. Pp. 532-548.
- Tropper, B., Hestvik, A., Shafer, V., & Schwartz, R. G. (2008). ERP evidence for impaired processing of wh-questions in children with SLI. *Boston University Conference on Language Development (BUCLD) Proceedings 32*.
- Shafer, V.L & Garrido-Nag, K. (2007). The neurodevelopmental basis of speech and language. (2007). *The Handbook of Language Development* (M. Shatz, E. Hoff, Eds.). Oxford: Blackwell. Pp. 21-38.
- Shafer, V.L., Schwartz, R.G., & Kessler, K.L (2004). ERP Indices of Phonological and Lexical Processing in Children with SLI. *Proceedings of the 28th Annual Boston University Conference on Language Development*, Somerville, MA: Cascadilla Press, pp. 522-531
- Kessler, K.L. Martaharjono G. & Shafer, V.L. (2004) ERP correlates of age and proficiency in L2 processing of syntactic and inflectional information. *Proceedings of the 28th Annual Boston University Conference on Language Development*, Somerville, MA: Cascadilla Press, pp. 294-305.
- Shafer, V.L., Schwartz, R.G., & Kessler, K.L (2003). ERP Indices of Phonological and Lexical Processing in Children and Adults. *Proceedings of the 27th Annual Boston*

University Conference on Language Development, Somerville, MA: Cascadilla Press. 751-761.

Shafer, V.L., Schwartz, R.G., Morr, M.L., Kessler, K.L., Kurtzberg, D., and Ruben, R.J. (2001). Neurophysiological indices of language impairment in children. *Acta Otolaryngol*, 121.

Shafer, V.L. & Shucard, D.W. (1995). Is the right hemisphere of the brain functionally specialized to process prosodic information? In D. MacLaughlin. & S. McEwen, (Eds.) *Proceedings of the 19th Annual Boston University Conference on Language Development*, Vol. 2 (pp. 563-574) Somerville, MA: Cascadilla Press.

Shafer, V.L. (1992). Modality in the Romance Conditional Sentence. In F. Li, H. L. Weber, L. Whaley, and R. VanValin (Eds.) *Buffalo Working Papers*, Linguistics Department, SUNY at Buffalo.

Shafer, V.L. (1990). [Review of the book *Cognitive Psychology: A Student's Handbook*]. *Journal of Minds and Machines*, 1991.