

## Elena Plante, Ph.D.

### Education:

B.A. Loyola College in Maryland	1984 Speech Pathology
M.S. Loyola College in Maryland	1985 Speech Pathology
Ph.D. The University of Arizona	1990 Speech and Hearing Sciences Neuroscience Minor

**Current Position:** Professor & Head  
Department of Speech and Hearing Sciences  
The University of Arizona

Faculty: Cognitive Sciences Program  
Cognitive Neurosciences Program

### Certification and Affiliations:

Member, American Speech-Language-Hearing Association (ASHA)  
Member, ASHA Special Interest Division 10, Higher Education  
Certification of Clinical Competence: Speech-Language Pathology, ASHA

### Honors and Awards:

2004 Fellow, American Speech-Language-Hearing Association  
2003 Galileo Circle Fellow, College of Science, University of Arizona  
2000 Mortar Board Citation, for intense devotion to and distinguished academic accomplishment in one field of endeavor, awarded by the student Mortar Board honorary society, University of Arizona.

### Recent Grants:

Christensen, T. (2007-2012). *Brain Mechanisms Linking Language, Attention and Memory*. NIDCD 1K01DC008812-01. Budget: \$981,048, Role on Project: Mentor.

Plante, E. (2005-2008). *Identification of Adults with Developmental Language Impairment* NIDCD R21 DC007917 . \$452,708. Role on project: PI.

Van Petten, C., Glisky, E., & Plante, E. (2004-2009). *Cognitive and Neural Bases of Aging and Memory*. NIA R01 AG014792. Role on project: Investigator.

Gerken, L.A., Gomez, R., (2004-2009). *Learning Mechanisms in Language Acquisition*. NICHD HD42170-01 \$795,375 Role on project: Co-investigator.

Holland, S.K. (2006-2011). *fMRI of Normal Language Development in Children*. National Institute on Maternal Health and Child Development. HD38578 \$1,000,748. Role on project: Consultant.

Plante, E. (2002-2007). *Receptive skills in developmental language disorder*. National Institute on Deafness and Other Communication Disorders R01 DC04726 \$925,000. Role on project: PI.

### **Recent Publications:**

- Spaulding, T.J., Plante, E. (in press). Sustained selective attention skills of preschool children with specific language impairment: Evidence for separate attentional capacities. *Journal of Speech, Language, & Hearing Research*.
- Schmithorst, V.J., Holland, S.K., & Plante, E. (in press). Development of effective connectivity for narrative comprehension in children. *NeuroReport*.
- Pankratz, M., Plante, E., Vance, R., Insalaco, D. (in press). The Diagnostic and Predictive Validity of The Renfrew Bus Story. *Language, Speech, & Hearing Services in Schools*.
- Fisher, J., Plante, E., Vance, R., Gerken, L.A., Glattke, T.J. (in press). Do Children and Adults with Language Impairment Recognize Prosodic Cues? *Journal of Speech, Language, & Hearing Disorders*.
- Norrix, L.W., Plante, E., Vance, R., & Boliek, C.A. (in press). Auditory-Visual Integration for Speech by Children with and without Specific Language Impairment. *Journal of Speech, Language, & Hearing Research*.
- Holland, S.K., Vannest, J., Mecoli, M., Jacola, L.M., Tillema, J.M., Karunanayaka, P.R., V.J., S., Yuan, W.H., Plante, E. and Byars, A.W., (in press). Functional MRI of Language Lateralization During Development in Children. *International Journal of Audiology*.
- Byars, A.W., Jacola, L., Schmithorst, V.J., Altaye, M., Schapiro, M.B., Szaflarski, J.P., Plante, E. & Holland, S.K., (in press). Handedness and the Development of Language Lateralization. *Neuroimage*
- Karunanayaka, P.R., Holland, S.K., Schmithorst, V.J., Solodkin, A., Chen, E.E., Szaflarski, J.P., Plante, E. (2007). Age Related Connectivity Changes in fMRI Data from Children Listening to Stories. *NeuroImage*. 34, 349-60.
- Schmithorst, V.J., Holland, S.K., & Plante, E. (2006). Object Identification and Lexical/Semantic Access in Children: A Functional Magnetic Resonance Imaging Study of Word-Picture Matching. *Human Brain Mapping*.
- Richardson, J., Harris, L., Plante, E., & Gerken, L.A. (2006). Subcategory Learning in Normal and Language Learning-Disabled Adults: How much information do they need? *Journal of Speech, Language, & Hearing Research*, 49, 1257-1266.
- Alt, M. & Plante, E. (2006) Factors That Influence Lexical and Semantic Fast-Mapping of Young Children with Specific Language Impairment. *Journal of Speech, Language, & Hearing Research*, 49, 941 - 954.
- Szaflarski, J.P., Schmithorst, V.J., Altaye, M., Byars, A.W., Rett, J., Plante, E., & Holland, S.K. (2006). FMRI study of longitudinal language development in children age 5-1. *Annals of Neurology*, 59, 796-807.
- Jacola, L.M. Schapiro, M.B, Schmithorst, V.J., Byars, A.W., Strawsburg, R.H., Szaflarski, J.P., Holland, S.K., Plante, E. (2006). Functional Magnetic Resonance Imaging Reveals Atypical Language Organization in Children Following Perinatal Left Middle Cerebral Artery Stroke. *Neuropediatrics*. 37, 46-52.
- Peña, E.D., Spaulding, T.J., & Plante, E. (2006). The Composition of Normative Groups and Diagnostic Decision Making: Shooting Ourselves in the Foot. *American Journal of*

- Speech-Language Pathology*, 15, 247-254.
- Plante, E., Holland, S.K., & Schmithorst, V.J. (2006). Prosodic Processing by Children: An fMRI Study. *Brain and Language*, 97, 332-342.
- Plante, E., Schmithorst, V.J., Holland, S.K., & Byars, A.W. (2006). Sex Differences in the Activation of Language Cortex During Childhood. *Neuropsychologia*, 44, 1210-1221.
- Norrix, L.W., Plante, E., & Vance, R. (2006). Auditory-Visual Speech Integration by Adults with and without Language Learning Disabilities. *Journal of Communication Disorders*, 39, 22-36.
- Spaulding, T.J., Plante, E., & Farinella, K.A. (2006). Do children with impaired language score at the low end of the normative distribution? *Language, Speech, & Hearing Services in Schools*, 37, 61-72.
- Plante, E., Ramage, A., Maglõire, J. (2006). Processing Narratives for Verbatim and Gist Information by Adults with Language Learning Disabilities: A Functional Neuroimaging Study. *Learning Disabilities Research and Practice*, 21, 61-76.
- Grunow, H., Spaulding, T.J., Gómez, R.L., & Plante, E. (2006). The Effects of Variation on Learning Word Order Rules by Adults with and without Language-based Learning Disabilities. *Journal of Communication Disorders*, 39, 158-170.
- Schmithorst, V.J., Holland, S.K., & Plante, E. (2006). Cognitive Modules Utilized for Narrative Comprehension in Children: A Functional Magnetic Resonance Imaging Study. *NeuroImage*, 29, 254-266.
- Ellis Weismer, S., Plante, E., Jones, M., Tomblin, J.B. (2005). A Functional Magnetic Resonance Imaging Investigation of Verbal Working Memory in Adolescents with Specific Language Impairment. *Journal of Speech-Language-Hearing Research*, 48, 405-425.
- Kraemer, R., Plante, E., & Green, G.E. (2005). Speech and Language Development of a Young Child Post-Decannulation. *Journal of Communication Disorders*, 38, 349-358.
- Perona, K., Plante, E., & Vance, R. (2005). Diagnostic Accuracy of the Structured Photographic Expressive Language Test: Third Edition (SPELT-3). *Language, Speech, & Hearing Services in Schools*, 36, 103-115.
- Van Petten, C., Plante, E., Davidson, P.S., Kuo, T., Bajuscak, L. & Glisky, E.L (2004). Memory and executive function in older adults: Relationships with temporal and prefrontal gray matter volumes. *Neuropsychologia*, 42, 1313-35.
- Pankratz, M., Morrison, A., & Plante, E. (2004). Difference in Standard Scores of Adults on the Peabody Picture Vocabulary Tests -R and -III. *Journal of Speech-Language-Hearing Research*, 47, 714-718
- Plante, E. (2004). Evidence Based Practice in Communication Sciences and Disorders. *Journal of Communication Disorders*. 37, 389-90.
- Alt, M., Creusere, M., & Plante, E., (2004). Semantic Features in Fast-Mapping: Performance of Preschoolers with Specific Language Impairment versus Preschoolers with Normal Language. *Journal of Speech-Language-Hearing Research*, 47, 714-20.
- Creusere, M., Alt, M., & Plante, E. (2004). Recognition of Vocal and Facial Cues to Affect in Language-Impaired and Normally-Developing Preschoolers. *Journal of Communication Disorders*, 37, 5-20.
- Mahendra, N., Plante, E., Magloire, J., Milman, L., & Trouard, T.P. (2003). fMRI Variability and Localization of Language in Bilinguals. *NeuroReport*, 14, 1225-8.
- Beeson, P.M., Rapcsak, S.Z., Plante, E. Chargualaf, J. Chung, A. Johnson, S.C., Trouard, T.P.

(2003). The neural substrates of writing: a functional magnetic resonance imaging study. *Aphasiology*, 17, 647-665.

### **Invited Talks and Symposia**

Plante, E. (2007, May). The physiology of normal language development as seen through fMRI. *Colloquium given at the Department of Biological Psychology at the University of Bergen*. Bergen, Norway.

Plante, E. (2007, May). *Training students in the lab*. ASHA-NIH Lessons for Success Conference, Rockville, MD.

Plante, E. (2006, June). *Principles of Learning: What promotes generalization?* Speak Up Seminar, Bergen, Norway.

Watkins, J.L., Hendrix, R.E., Plante, E. (2004). *Interdisciplinary collaborations* Web-based teaching module. Rockville, MD: American Speech-Language-Hearing Association.

### **Mailing Address**

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