#### **BIOGRAPHICAL SKETCH**

Provide the following information for the key personnel and other significant contributors in the order listed on Form Page 2. Follow this format for each person. DO NOT EXCEED FOUR PAGES.

NAME	POSITION TITLE
Ashmead, Daniel H.	Professor of Hearing & Speech Sciences
eRA COMMONS USER NAME	
ashmeadh	

EDUCATION/TRAINING (Begin with baccalaureate or other initial professional education, such as nursing, and include postdoctoral training.)

INSTITUTION AND LOCATION	DEGREE (if applicable)	YEAR(s)	FIELD OF STUDY
Brown University, Providence, RI University of Minnesota, Minneapolis, MN	BS PhD	1976 1983	Psychology Child Psychology
University of Massachusetts, Amherst, MA	PostDoc	1983-1984	Developmental Psychology

#### A. Positions and Honors

**Positions and Employment** 

1976-1979	National Science Foundation Graduate Fellowship, University of Minnesota.
1979-1980	Eva O. Miller Graduate Fellowship, University of Minnesota.
1983-1984	Post-doctoral Fellowship, NICHD, with Dr. Rachel K. Clifton, Department of Psychology,
	University of Massachusetts.
1984-1992	Assistant Professor, Department of Psychology, Vanderbilt University.
1992-1996	Assistant Professor, Hearing & Speech Sciences, Vanderbilt University Medical Center.
1993-	Assistant Professor (secondary appointment), Department of Psychology, Vanderbilt University.
1999-	Associate Professor (secondary appointment), Department of Psychology & Human
	Development, Vanderbilt University
1997-2007	Associate Professor, Hearing & Speech Sciences, Vanderbilt University Medical Center
2007-pres	Professor, Hearing & Speech Sciences, Vanderbilt University Medical Center

Honors	
1975	Sigma Xi, Brown University chapter
1975	Harold Schlossberg memorial Award, Brown University
1976-79	National Science Foundation Predoctoral Fellowship
1983-84	National Research Service Award (NICHD)
1988-93	FIRST Grant Award (NICHD)

2001 Editor's Award, American Speech Language Hearing Association, 2001, for outstanding journal

article of the year (Tharpe & Ashmead)

# B. Selected peer-reviewed publications (in chronological order)

- 1. Ashmead, D.H., Wall, R.S., Ebinger, K.A., Eaton, S.B., Snook-Hill, M-M, & Yang, X. (1998). Spatial hearing in children with visual disabilities. Perception, 27, 105-122.
- 2. Ashmead, D.H., Wall, R.S., Eaton, S.B., Ebinger, K.A., Snook-Hill, M-M., Guth, D.A., & Yang, X. (1998). Echolocation reconsidered: Using spatial variations in the ambient sound field to guide locomotion. Journal of
- Visual Impairment & Blindness, 92, 615-632.
  3. Strouse, A. & Ashmead, D.H, Ohde, R.N, & Grantham, D.W. (1998). Temporal processing in the aging auditory system. Journal of the Acoustical Society of America, 104, 2385-2399.
- 4. McCarty, M.E. & Ashmead, D.H. (1999). Visual control of reaching and grasping in infants. Developmental Psychology, 35(3), 620-631.
- 5. Laowattana, S., Abou-Khalil, B., Fakhoury, T., Ashmead, D.H. (1999). Brief antiepileptic drug withdrawal prolongs interval to next seizure. Neurology, 53, 1736-1741. Ashmead, D.H. & Wall, R.S. (1999). Auditory perception of walls via spectral variations in the ambient sound field. Journal of Rehabilitation Research and Development, 36 (4), 313-322.
- 6. Bourland, C., Tharpe, A.M., & Ashmead, D.H. (2000). Behavioral auditory assessment of young infants: Methodological limitations or natural lack of auditory responsiveness? American Journal of Audiology, 9(2), 124-130.

- 7. McCarty, M.E., Clifton, R.K., Ashmead, D.H., Lee, P., & Goubet, N. (2001). How infants use vision for grasping objects. Child Development, 72(4), 973-987.
- 8. Perry, T.L., Ohde, R.N., & Ashmead, D.H. (2001). The acoustic basis for gender identification from children's voices. Journal of the Acoustical Society of America. 109(6), 2988-2998.
- 9. Tharpe, A.M. & Ashmead, D.H. (2001). A longitudinal investigation of infant auditory sensitivity. *American* Journal of Audiology, 10, 104-112.
- 10. Tharpe, A.M., Ashmead, D.H., & Rothpletz, A.M. (2002). Visual attention in children with normal hearing, children with hearing aids, and children with cochlear implants. Journal of Speech, Language, and Hearing Research, 45, 403-413,
- 11. Tharpe, A.M., Ashmead, D.H., Ricketts, T.A., Rothpletz, A.M., Wall, R.S. (2002). Optimization of amplification for deaf-blind children. In Seewald, R.C. & Gravel, J.S. (Eds.), A sound foundation through early amplification 2001. Stäfa, Switzerland: Phonak AG. Pp. 203-209.
- 12. Wall, R. S. & Ashmead, D. H. (2002). Changes in biomechanical features of the two-point touch technique as it is learned. Journal of Visual Impairment and Blindness, 96, 829-841.
- 13. Ashmead, D.H. & Wall, R.S. (2002). Low frequency sound as a navigational tool for people with visual
- impairments. Journal of Low Frequency Noise, Vibration, and Active Control, 21(4), 199-205.

  14. Rothpletz, A.M., Ashmead, D.H., & Tharpe, A.M. (2003). Responses to targets in the visual periphery in deaf and normal-hearing adults. Journal of Speech, Language, and Hearing Research, 46, 1378-1386.
- 15. Ashmead, D.H. & Tharpe, A.M. (2004). Development of audition in children. In Kent, R. (Ed.), MIT Encyclopedia of Communication Disorders. Cambridge, MA: MIT Press.
- 16. Wall, R. S., Ashmead, D. H., Bentzen, B. L., & Barlow, J. (2004). Directional guidance of audible pedestrian signals for street crossing. *Ergonomics*, 47(12), 1318-1338.
- 17. Ashmead, D.H., Wall, R.S., Bentzen, B.L., & Barlow, J. (2004). Which crosswalk? Effects of accessible pedestrian signal characteristics. ITE Journal, 74(9), 26-30.
- 18. Grantham, D. W., Ashmead, D. H., and Ricketts, T. A. (2004). Sound Localization in the Frontal Horizontal Plane by Post-Lingually Deafened Adults Fitted with Bilateral Cochlear Implants, in Pressnitzer, D., de Cheveigné, A., McAdams, S., and Collet, L. (Eds.) Auditory signal processing: physiology, psychoacoustics, and models. New York, Springer (pp. 390-397).
- 19. Grantham, D.W., Willhite, J., Frampton, K.D., & Ashmead, D.H. (2005). Reduced order modeling of head related impulse responses for virtual acoustic displays. Journal of the Acoustical Society of America, 117,
- 20. Ashmead, D.H., Guth, D., Wall, R.S., Long, R., & Ponchillia, P. (2005). Street crossing by sighted and blind pedestrians at a modern roundabout. Journal of Transportation Engineering, 131(11), 812-821. 21. Guth, D., Ashmead, D., Long, R., Wall, R., & Ponchillia, P. (2005). Blind and sighted pedestrians'

judgments of gaps in traffic at roundabouts. *Human Factors*, 47(2), 314-331.

- 22. Long, R.G., Guth, D.A., Ashmead, D.H., Wall, R.S., & Ponchillia, P.E. (2006). Modern roundabouts: Access by pedestrians who are blind. Journal of Visual Impairment & Blindness, 99(10), 611-621.
- 23. Ricketts, T.A., Grantham, D.W., Ashmead, D.H., Haynes, D.S., & Labadie, R.F. (2006). Speech recognition for unilateral and bilateral cochlear implant modes in the presence of uncorrelated noise sources. Ear & Hearing, 27(6),763-773.
- 24. Grantham, D. W., Ashmead, D. H., Ricketts, T. A., Labadie, R., & Haynes, D. (2007). Horizontal-plane localization of noise and speech signals by post-lingually deafened adults fitted with bilateral cochlear implants. Ear and Hearing, 28, 524-541.
- 25. Rieser, J.J., Ashmead, D.H., Ebner, F., & Corn, A. (Eds.) (2007). Blindness and brain plasticity in navigation and object perception. Mahweh, NJ: Erlbaum.
- 26. Wall Emerson, R.S. & Ashmead, D.H. (2007). Visual experience and the concept of compensatory spatial hearing abilities. In Rieser, J.J., Ashmead, D.H., Ebner, F., & Corn, A. (Eds.). Blindness and brain plasticity in navigation and object perception. Mahweh, NJ: Erlbaum.
- 27. Seward, E.A., Ashmead, D.H., & Bodenheimer, B. (2007). Using virtual environments to assess time-to-contact judgments from pedestrian viewpoints. *ACM Transactions on Applied Perception*, *4*(3), Article 18,1-19. 28. Grantham, D. W., Ashmead, D. H., Ricketts, T. A., Haynes, D., & Labadie, R. (2008). Interaural time and level difference thresholds for acoustically presented signals in post-lingually deafened adults fitted with bilateral cochlear implants using CIS+ processing. Ear and Hearing, 29(1),33-44.
- 29. Grantham, D. W., Ricketts, T. A., Ashmead, D. H., Labadie, R., & Haynes, D. (2008). Localization of noise and speech signals by post-lingually deafened adults fitted with unilateral cochlear implants. The Laryngoscope, 118(1), 145-151.
- 30. Ashmead, D.H., Tharpe, A.M., & Sladen, D. (2008). Auditory development and hearing disorders. In Haith, M.M. & Benson, J.B. (Eds.). Encyclopedia of Infant and Early Childhood Development, 2nd edition. Oxford, UK: Elsevier.
- 31. Ashmead, D.H. (2008). Auditory perception. In Haith, M.M. & Benson, J.B. (Eds.). Encyclopedia of Infant and Early Childhood Development, 2nd edition. Oxford, UK: Elsevier.

### C. Research Support

Ongoing Research Support 2 R01 EY012894-06 Long (PI) 06/01/07-6/30/12

NIH/NEI

Blind Pedestrians' Access to Complex Intersections

This multi-center project explores the accessibility of traffic intersections to pedestrians who have visual impairments, with emphasis on solutions to promote safer, more efficient street crossing.

Role: PI of Vanderbilt University component

1R01DC008429-01 Zealear (PI)

05/15/06-07/31/11

NIH/NIDCD

Electrical Stimulation of the Bilaterally Paralyzed Larynx Paced with Respiration

The goal of this research is to conceive an implantable laryngeal pacemaker system that will re-establish bilateral glottal opening in synchrony with inspiration.

Role: Co-investigator for statistical/design support

N/A Med-El Corporation

Grantham (PI)

04/01/08-03/31/09

Spatial Hearing in Bilaterally Implanted Cochlear Implant Users, Phase 2, Longitudinal Invesigation of CI Benefits

The first goal of this project is to determine the long-term benefits in various speech perception and localization tasks for wearers of one and two CIs and to chart the course of improvement in performance during the first two years of CI activation, using both psychophysical and electrophysiological measures. The second goal is to evaluate the effect of prior experience with a single cochlear implant on performance and performance improvement when a second implant is activated.

Role: Co-investigator

# **Completed Research Support**

5R01DC001149-11 Zealear (PI)

09/30/90-11/30/07

NIH/NIDCD

Rehabilitation of the Paralyzed Larvnx

The over all goal of this project is to restore abduction in animals with bilateral laryngeal paralysis using an implantable stimulation device, and to determine the mechanisms by which electrical stimulation promotes selective reinnervation of the denervated posterior cricoarytenoid muscle by its original native motoneurons over foreign ones.

Role: Co-investigator for statistical/design support

5R03DC006576-03 Hornsby (PI) 08/1/04-7/30/07

NIH/NIDCD

Hearing Loss and the Utility of Speech Information

Our broad long term research goals are to identify the factors that limit aided speech understanding of persons with SNHL and develop rehabilitative strategies to reduce the negative consequences of this highly prevalent disease.

Role: Co-investigator for statistical/design support

N/A Cochlear Americas

Grantham (PI)

09/01/06-08/31/07

Spatial Hearing in Patients with the Baha Osseointegrated Cochlear Simulator

The major goal of this project is to investigate under ideal conditions horizontal-plane localization performance and speech recognition performance in unilaterally hearing-impaired adults who have been fitted with the Baha implantable cochlear stimulator on the side of their poor ear.

Role: Co-investigator