William D. Hula

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**EDUCATION:**

Ph.D., Communication Science and Disorders, University of Pittsburgh, 2007

Dissertation: *Resource and Bottleneck Mechanisms of Attention in Language Performance*

M.S., Speech-Language Pathology, University of North Carolina at Chapel Hill, 1997

Thesis: *Speaker Recognition and Speech Perception: A Study Using Reversed Speech Stimuli*

B.A., Russian, University of North Carolina at Chapel Hill, 1994

**PROFESSIONAL POSITIONS:**

Speech Pathologist, VA Pittsburgh Healthcare System Audiology and Speech Pathology Program, VA Pittsburgh Healthcare System, Pittsburgh, PA, October 2015-present

Research Speech Pathologist, VA Pittsburgh Healthcare System Research Service and Geriatric Research, Education, and Clinical Center, VA Pittsburgh Healthcare System, Pittsburgh, PA, July 2008-September 2015

Adjunct Assistant Professor, Department of Communication Science and Disorders, University of Pittsburgh, Pittsburgh, PA, August 2007-present

Speech Pathologist, VA Pittsburgh Healthcare System Audiology and Speech Pathology Program, Pittsburgh, PA, June 2005-July 2008

Research Associate, Veterans Research Foundation of Pittsburgh and VA Pittsburgh Healthcare System, Pittsburgh, PA, August 2003-June 2005

VA Pre-Doctoral Trainee, VA Pittsburgh Healthcare System Audiology and Speech Pathology Program, Pittsburgh, PA, September 2000-August 2003

Clinical Fellow and Senior Fellow in Speech-Language Pathology, Henry Ford Hospital Division of Speech-Language Science and Disorders, Detroit, MI, August 1997-August 2000

Research Assistant, UNC-CH Division of Speech and Hearing Sciences, Chapel Hill, NC, January 1996-May 1997

**PERSONAL STATEMENT:**

My research program focuses on multiple challenging aspects of aphasia and its management, including its underlying cognitive-linguistic bases, investigation of optimal parameters for behavioral treatment, and measurement of patient-reported and performance-based outcomes. I currently lead a research team whose activities are focused primarily on the following projects: a multi-site VARR&D I01 Merit Review project (37.5% effort) to further develop and validate the Aphasia Communication Outcome Measure, a patient-reported outcome measure whose initial development formed the core of the scientific work on my Level 2 Career Development Award project; a multiple-PI NIH R01 project (20% effort) in which I am collaborating with Dr. Juan Carlos Fernandez-Miranda in the University of Pittsburgh Department of Neurosurgery to study relationships between white matter integrity and language processing and neuroplasticity in aphasia treatment using High Definition Fiber Tractography; and a multi-site NIH R03 project (20% effort) on which I am a site co-investigator whose goal is to develop and validate a computer-adaptive assessment of naming for aphasia rehabilitation. I am also a co-investigator on three other VA RR&D I01 treatment and/or assessment studies (6% effort total).

I am also the primary mentor on a VARR&D Level 1 Career Development Award to William Evans, Ph.D., CCC-SLP, and I provide mentoring to Michelle Gravier, Ph.D., CCC-SLP, a post-doctoral research speech pathologist in the VAPHS Geriatric Research, Education, and Clinical Center. She is current the recipient of a VA RR&D SPiRE award focus on rTMS treatment of naming in aphasia and has a CDA-1 currently under review.

I routinely serve as a consulting editor for peer-review journals in my area, including the *American Journal of Speech-Language Pathology, Aphasiology, Brain Injury, International Journal of Audiology, Journal of Speech, Language, and Hearing Research, and Topics in Language Disorders.* In the recent past I have served on scientific review panels for VA RR&D and NIH, including the RRD3 SPiRE Review Panel, the RRD9 Career Development Panel, and a Stroke Special Emphasis Panel for the National Institute of Neurological Disorders and Stroke.

In my role as a clinical provider, I participated in the establishment of a GRECC demonstration project, the VAPHS Program for Intensive Residential Aphasia Treatment and Education, and I currently provide clinical services, both in the context of this program and other speech pathology clinics at 10% effort.

Academically, I have maintained an adjunct appointment in the University of Pittsburgh Department of Communication Science and Disorders since completing my Ph.D., in 2007. In May 2016, I was appointed to the Graduate Faculty in the Department, providing me the opportunity to mentor doctoral students in the context of my ongoing research program. I currently serve as primary mentor and co-advisor to Alex Swiderski, who entered the Pitt doctoral program in January 2018. My other ongoing academically oriented activities have included regular guest lectures in undergraduate courses on research methods and phonetics, co-advising of a master’s thesis project, and service on doctoral and honors thesis committees.

**PEER REVIEWED PUBLICATIONS:**

Gravier, M.L., Dickey, M.W., **Hula, W.D.**, Evans, W.S., Owens, R.L., Winans-Mitrik, R.L., & Doyle, P.J. (in press) What Matters in Semantic Feature Analysis: Practice-related Predictors of Treatment Response in Aphasia. *American Journal of Speech-Language Pathology.*

**Hula, W. D.**, Kellough, S., & Fergadiotis, G. (2015). Development and simulation testing of a computerized adaptive version of the Philadelphia Naming Test. *Journal of Speech, Language, and Hearing Research*,58(3), 878-890.

Fergadiotis, G., Kellough, S., & **Hula, W. D.** (2015). Item response theory modeling of the Philadelphia Naming Test. *Journal of Speech, Language, and Hearing Research*,58(3), 865-877.

**Hula, W. D.**, Doyle, P. J., Stone, C. A., Hula, S. N. A., Kellough, S., Wambaugh, J. L., Ross, K.B., Schumacher, J.G., & Jacque, A. S. (2015). The Aphasia Communication Outcome Measure (ACOM): Dimensionality, item bank calibration, and initial validation. *Journal of Speech, Language, and Hearing Research*, 58(3), 906-19.

Winans-Mitrik, R.L., **Hula, W.D.,** Dickey, M.W., Schumacher, J.G., Swoyer, B., & Doyle P.J. (2014). Description of an intensive residential aphasia treatment program: Rationale, clinical processes, and outcomes. *American Journal of Speech Language Pathology*, 13, S1-13.

Doyle, P.J., **Hula, W.D.,** Austermann Hula, S.N., Stone, C.A., Wambaugh, J.L., Ross, K.B., Schumacher, J.G. (2013). Self- and Surrogate-Reported Communication Functioning in Aphasia, *Quality of Life Research,* 22(5), 957-967.

**Hula, W.D.,** Fergadiotis, G., & Martin, N. (2012). Model choice and sample size in item response theory analysis of aphasia tests. *American Journal of Speech-Language Pathology*, 21(2), S38-50.

Baylor, C., **Hula, W.D.**, Donovan, N.J., Doyle, P.J., Kendall, D., Yorkston K., (2011). An introduction to item response theory and Rasch models for speech-language pathologists. *American Journal of Speech-Language Pathology*, 20, 243-259.

**Hula, W.D.,** Donovan, N.J., Kendall, D.R., & Gonzalez-Rothi, L.R. (2010). Item response theory analysis of the Western Aphasia Battery. *Aphasiology,* 24(11), 1326-1341.

**Hula, W.D.,** Doyle, P.J., & Austermann Hula, S.N. (2010). Patient reported cognitive and communicative functioning: One construct or two? *Archives of Physical Medicine and Rehabilitation,* 91, 400-406.

**Hula,W.D.**, Doyle, P.J., & Rossi, M.I. (2009). New approaches to understanding and treating aphasia. *Federal Practitioner*, 26(6), 35-40.

**Hula, W.D.,** Austermann Hula, S.N., & Doyle, P.J. (2009). A preliminary evaluation of the reliability and validity of a self-reported communicative functioning item pool. *Aphasiology*, 23 (7-8), 783-796.

Sung, J.E., McNeil, M.R., Pratt, S.R., Dickey, M.W., **Hula, W.D.**, Szuminsky, N.J., Doyle, P.J. (2009). [Verbal working memory and its relationship to sentence-level reading and listening comprehension in persons with aphasia](http://www.informaworld.com/smpp/content~content=a909574662?words=hula&hash=769741568). *Aphasiology*, 23(7-8), 1040-1052.

**Hula, W.D.** & McNeil, M.R. (2008). Models of attention and dual-task performance as explanatory constructs in aphasia. *Seminars in Speech and Language*, 29(3), 169-187.

Doyle, P.J., McNeil, M.R., Le, K., **Hula, W.D.,** & Ventura, M.B. (2008). Measuring communicative functioning in neurogenic communication disorders: Conceptual foundation and item development. *Aphasiology,* 22, 718-728*.*

Raymer, A., Beeson, P., Holland, A., Kendall, D. Maher, L.M., Martin, N., Murray, L., Rose, M., Thompson, C.K., Turkstra, L., Altmann, L., Boyle, M., Conway,T., **Hula, W.,** Kearns, K., Rapp, B., Simmons-Mackie, N., Gonzalez Rothi, L.J. (2008). Translational research in aphasia: From neuroscience to neurorehabilitation. *Journal of Speech, Language, and Hearing Research*, 51, S259-S275.

Doyle, P.J., McNeil, M.R., Bost, J.E., Ross, K., Wambaugh, J., **Hula, W.D.,** Mikolic, J.M. (2007). The Burden of Stroke Scale Provided valid, reliable, and responsive score estimates of functioning and well-being during the first year of recovery from stroke. *Quality of Life Research,* 16(8), 1389-1398.

**Hula, W.D.**, Doyle, P.J., McNeil, M.R., & Mikolic, J.M. (2006). Rasch modeling of Revised Token Test performance: Validity and sensitivity to change. *Journal of Speech, Language, and Hearing Research*, 49, 27-46.

McNeil, M.R., Matthews, C.T., Hula, W.D., Doyle, P.J., Rubinsky, H.J., & Fossett, T.R.D. (2006). Effects of visual-manual tracking under dual-task conditions on auditory language comprehension and story retelling in persons with aphasia. *Aphasiology*, 20, 167-174

Doyle, P.J., Matthews, C.T**., Hula,W.D.**, Mikolic, J.M., & McNeil, M.R. (2006).Do measures of language impairment predict patient communication difficulty and distress as measured by the Burden of Stroke Scale (BOSS)? *Aphasiology*, 20, 349-361.

Doyle, P.J., **Hula, W.D.**, McNeil, M.R., & Mikolic, J.M. (2005). An application of Rasch analysis to the measurement of communicative functioning. *Journal of Speech, Language, and Hearing Research*, 48, 1412-1428.

McNeil, M.R., Matthews, C.T., **Hula, W.D.**, Doyle, P.J., Rubinsky, H.J., & Fossett, T.R.D. (2005). A dual-task tool for quantifying normal comprehension of aphasic connected speech production: A constructive replication. *Aphasiology,* 19, 473-484.

Doyle, P.J., McNeil, M.R., Mikolic, J.M., Prieto, L.R., **Hula, W.D.**, Lustig, A.P., Ross, K., Wambaugh, J.L., Gonzalez-Rothi, L.J., Elman, R.J. (2004). The Burden of Stroke Scale (BOSS) provided reliable and valid score estimates of functioning and well-being in stroke survivors with and without communication disorders. *Journal of Clinical Epidemiology, 57*, 997-1007

McNeil, M.R., **Hula, W.D.**, Matthews, C.T. & Doyle. P.J. (2004). Resource theory and aphasia: A fugacious theoretical dismissal. *Aphasiology, 18*, 836-839.

McNeil, M.R., Doyle, P.J., **Hula, W.D.**, Rubinsky, H.J., Fossett, T.R.D., & Matthews, C. T. (2004). Using resource allocation theory and dual-task methods to increase the sensitivity of auditory comprehension assessment in aphasia. *Aphasiology, 18(5-7)*, 521-542.

Doyle, P.J., McNeil, M.R., **Hula, W.D.,** & Mikolic, J. (2003). The Burden of Stroke Scale (BOSS): Validating patient-reported communication difficulties and associated psychological distress in stroke survivors. *Aphasiology, 17(3),* 291-304.

**Hula, W.D.**, McNeil, M.R., Doyle, P.J., Rubinsky, H. & Fossett, T.R.D. (2003). The inter-rater reliability of the Story Retell Procedure. *Aphasiology, 17(5)*, 523-528.

**INVITED PUBLICATIONS:**

Biel, M. & **Hula, W.D.** (2014). Foundations of Cognition: Attention. In M. Kimbarow (Ed.), *Cognitive communication disorders* (2nd ed.), San Diego, CA: Plural Publishing.

**Hula, W. D.**, Fergadiotis, G., & Doyle, P. J. (2014). A core outcome set for aphasia treatment research: Obstacles, risks, and benefits. *Aphasiology*, *28*(11), 1396-1399.

**Hula, W. D.**, Cherney, L. R., & Worrall, L. E. (2013). Setting a research agenda to inform intensive comprehensive aphasia programs. *Topics in Stroke Rehabilitation*, 20(5), 409-420.

**Hula, W.D.** (2011). Foundations of Cognition: Attention. In M. Kimbarow (Ed.), *Cognitive communication disorders*, San Diego, CA: Plural Publishing.

McNeil, M.R., **Hula, W.D.**, & Sung, J.E. (2010). The role of memory and attention in the language performance of persons with aphasia. InJ. Guendouzi, F. Loncke, & M.J. Williams (Eds.),*The Handbook of psycholinguistic & cognitive processes: Perspectives in communication disorders*, London: Taylor & Francis.

**Hula, W.D.** &Zivkovic, S.(2008). Amyotrophic Lateral Sclerosis. In M.R. McNeil (Ed.), *Clinical management of sensorimotor speech disorders,* 2nd Edition, New York: Thieme.

**PRESENTATIONS AND ABSTRACTS:**

**Hula,W.D,** Evans, W.S.., St. Jacque, A., Irwin, W., & Doyle, P.J. (Nov. 2017). Self-reported mood affects the relationship between aphasia severity & patient-reported communicative functioning. Presented to the annual convention of the American Speech-Language-Hearing Association, Los Angeles, CA.

**Hula W.D.**, Fernandez-Miranda J, Yeh, F.-C., Fernandes-Cabral, D., Dickey MW, Gravier, M.L., Panesar, S., Rowthu, V., & Doyle PJ (Nov. 2017). Left ventral white matter connectivity predicts response to semantic feature analysis treatment in aphasia. Presented to the 55th annual meeting of the Academy of Aphasia, Baltimore, MD.

**Hula W.D.**, Fernandez-Miranda J, Fernandes-Cabral, D., Dickey MW, Gravier, M..L., Yeh, F.-C., Panesar, S., Rowthu, V., Pathak, S. & Doyle PJ (Nov. 2017). White matter connectivity and lexical access in aphasia. Presented to the 9th annual meeting of the Society for the Neurobiology of Language, Baltimore, MD.

**Hula,W.D,** Nicholson, H., St. Jacque, A., Irwin, W., & Doyle, P.J. (June 2017). The Aphasia Communication Outcome Measure (ACOM) predicts communication-related well-being. Presentation to the Clinical Aphasiology Conference, Snowbird, UT.

Owens, R.O., Grzybowski, A.S., Verlinich, A., **Hula, W.D**., Dickey, M.W., & Doyle, P.J. (June 2017). Broad Versus Focused Intensive Aphasia Treatment. Presentation to the Clinical Aphasiology Conference, Snowbird, UT.

Evans, W.S., **Hula, W.D.,** & Starns, J. (June 2017). Modeling Maladaptive Speed-Accuracy Tradeoffs in Aphasia. Presentation to the Clinical Aphasiology Conference, Snowbird, UT.

Fergadiotis, G. & **Hula, W.D.** (June 2017). Enhancing the efficiency of the Philadelphia Naming Test. Presentation to the Clinical Aphasiology Conference, Snowbird, UT.

**Hula, W.D.,** Fergadiotis, G., Evans, W.S., & Gravier, M.L.(May 28, 2016). The impact of multidimensionality on the reliability of overall and subscale scores in aphasia assessment. Presentation to the Clinical Aphasiology Conference, Charlottesville, VA.

Fergadiotis, G., **Hula, W.D.,** & Swiderski, A. (May 28, 2016). Item difficulty modeling for confrontation naming tests. Presentation to the Clinical Aphasiology Conference, Charlottesville, VA.

Dickey, M.W., Doyle, P.J., & Gravier, M.L., & **Hula, W.D.** (May 27, 2016). Psycholinguistic predictors of treatment response in semantic feature analysis. Presentation to the Clinical Aphasiology Conference, Charlottesville, VA.

Delong, C., Wright, S.M., Mauszycki, S.C., Doyle, P.J., **Hula, W.D**., & Wambaugh, J.L. (May 27, 2016). Effects of treatment intensity on outcomes in acquired apraxia of speech: Initial findings. . Poster presentation to the Clinical Aphasiology Conference, Charlottesville, VA.

Gravier, M.L., Dickey, M.W., **Hula, W.D**., Doyle, P.J., & Evans, W.S. (May 26, 2016). What matters in SFA: Practice-related predictors of treatment response in aphasia. . Poster presentation to the Clinical Aphasiology Conference, Charlottesville, VA.

Fergadiotis, G, Swiderski, A., **Hula, W.D.** (May 25, 2016). Predicting item difficulty of confrontation naming tests within an item response theory framework. . Poster presentation to the Clinical Aphasiology Conference, Charlottesville, VA.

**Hula, W.D.**, Kellough, S., Austermann Hula, S.N., & Doyle, P.J. (November 12, 2015). Measuring patient-reported aphasia rehab outcomes with the Aphasia Communication Outcome Measure. Seminar presentation to the annual convention of the American Speech-Language-Hearing Association, Denver, CO.

Swiderski, A., Fergadiotis, G., & **Hula, W.D.** (November 12, 2015). A regression analysis of psycholinguistic variables & item difficulty parameters of the Philadelphia Naming Test. Poster presentation to the annual convention of the American Speech-Language-Hearing Association, Philadelphia, PA.

Yorkston, K.M., Baylor, C., Fergadiotis, G., **Hula, W.D.**, Mullen, R., Murray, J., & Simmons-Mackie, N. (November 13, 2015). Evaluating, selecting, & implementing patient reported outcome measures in the changing health care funding. Seminar presentation to the annual convention of the American Speech-Language-Hearing Association, Philadelphia, PA.

**Hula, W.D.**, Austermann Hula, S.N., & Doyle, P.J. (May 2015). Validity evidence for the Aphasia Communication Outcome Measure based on convergent and discriminant correlations. Poster presentation to the Clinical Aphasiology Conference, Monterey, CA.

**Hula, W.D.**, Kellough S., & Doyle, P.J. (May 2015). Reliability and validity of adaptive and static short forms of the Aphasia Communication Outcome Measure. Presentation to the Clinical Aphasiology Conference, Monterey, CA.

Fergadiotis, G., **Hula, W.D.,** and Kellough, S. (November 21, 2014). Item difficulty modeling of the Philadelphia Naming Test. Poster presentation at the annual convention of the American Speech-Language-Hearing Association, Orlando, FL.

**Hula, W.D.**, Fernandez-Miranda, J.C., Dickey, M.W., Pathak, S., Chang, Y.F., McNeil, M.R., & Doyle, P.J. (October 5, 2014). White matter correlates of lexical access in aphasia. Presentation to the 52nd annual meeting of the Academy of Aphasia, Miami, FL.

Dickey, M.W., **Hula, W.D.,** & Yoo, H.S. (May 29, 2014). Acquisition and generalization responses in aphasia treatment: Evidence from sentence-production. Presented to the Clinical Aphasiology Conference, St. Simons Island, GA.

**Hula, W.D.** & Doyle, P.J. (November 16, 2013). Measuring patient- and surrogate-reported communicative functioning in aphasia: The aphasia communication outcome measure. Presented to the Annual Convention of the American Speech-Language-Hearing Association, Chicago, IL.

Winans-Mitrik, R.L., **Hula, W.D.,** Dickey, M.W., Schumacher, J.G., Swoyer, B., & Doyle, P.J. (June 1, 2013). Description of an intensive residential aphasia treatment program: Rationale, clinical processes, and outcomes. Presented to the Clinical Aphasiology Conference, Tucson, AZ.

**Hula, W.D.** & Kellough, S. (May 31, 2013). Development and simulation testing of a computerized adaptive version of the Philadelphia Naming Test. Presented to the Clinical Aphasiology Conference, Tucson, AZ.

Kellough, S., **Hula, W.D.**, & Doyle, P.J. (May 31, 2013). Development and simulation testing of a computerized adaptive measure of communicative functioning in aphasia. Presented to the Clinical Aphasiology Conference, Tucson, AZ.

Doyle, P.J., **Hula, W.D.**, Austermann Hula, S.N., Stone, C.A., Ross, K., Wambaugh, J., Schumacher, J., & Roehrig, A. (May 22, 2012). The Aphasia Communication Outcome Measure: Item Reduction, Scaling, and Concurrent Validity of Self-Reported Communicative Functioning in Aphasia. Platform presentation to the Clinical Aphasiology Conference, Lake Tahoe, CA.

Winans, R., **Hula, W.D.**, Friedman, B., Sperl, A., Swoyer, B. & Doyle, P.J. (May 22, 2012). Treatment of Working Memory in a Patient with Moderate Aphasia. Poster presented to the Clinical Aphasiology Conference, Lake Tahoe, CA.

Winans, R.L., Swoyer, B.A., Fredericks, G., Schumacher, J.G., **Hula, W.D.** & Doyle, P.J. (April 2012). A Psycholinguistic Approach to Aphasia Assessment. Paper presented to the Association of Veteran Affairs Speech-Language Pathologists (AVASLP) Conference 2012, San Antonio, TX, April 1-4, 2012.

Swoyer, B., Winans, R., **Hula, W.D.**, Dickey, M.W., & Doyle, P.J. (March 29, 2012). Program for Intensive Residential Aphasia Treatment and Education (PIRATE):  Phonological and Semantic Treatment Approaches. Presented to the Annual Convention of the Pennsylvania Speech-Language-Hearing Association, Lancaster, PA.

Cherney, L.R., Doyle, P.J., **Hula, W.D.**, Lommen, G., Pierson, J.M., Rose, M.L., Worral, L. & Wozniak, L. (November 18, 2011). Intensive comprehensive aphasia programs (ICAPs): Philosophy, procedures and outcomes. Presented to the Annual Convention of the American Speech-Language-Hearing Association, San Diego, CA.

**Hula, W.D.**, Fergadiotis, G., & Martin, N. (June 3, 2011). The effects of sample size and guessing on parameter recovery in IRT modeling of aphasia test data. Presented to the Clinical Aphasiology Conference, Ft. Lauderdale, FL.

Ross, K., **Hula, W.D.**, & Doyle, P.J. (November 19, 2010). Recalibrating the ASHA FACS for measuring outcomes in aphasia. Presented to the Annual Convention of the American Speech-Language-Hearing Association, Philadelphia, PA.

**Hula, W.D.,** Ross, K., Austermann Hula, S.N., Wambaugh, J.L., Schumacher, J., & Doyle, P.J. (May 2010). Validity of and Agreement Between Self- and Surrogate-Reported Communicative Functioning in Persons with Aphasia. Presented to the Clinical Aphasiology Conference, Isle of Palms, SC.

**Hula, W.D.**, Kalinyak-Fliszar, M.F, & Martin, N. (October 2009). Using item response theory to examine the effects of short-term memory demands on minimal pair discrimination. Presented to the annual meeting of the Academy of Aphasia, Boston, MA.

**Hula, W.D.**, Austermann Hula, S.N., & Doyle, P.J. (October 2009). Patient-reported cognitive and communicative functioning: One construct or two? Presented to the annual meeting of the International Society for Quality of Life Research, New Orleans, LA.

**Hula, W.D.**, Donovan, N.J., Kendall, D.L., & Gonzalez-Rothi, L.J. (May 2009). Item response theory analysis of the Western Aphasia Battery. Presented to the Clinical Aphasiology Conference, Keystone, CO.

**Hula, W.D.**, Austermann Hula, S.N., & Doyle, P.J. (May 2009). Patient-reported cognitive and communicative functioning: One construct or two? Presented to the Clinical Aphasiology Conference, Keystone, CO.

Sung, J.E., **Hula, W.D.**, & McNeil, M.R. (November 2008). Working memory capacity and dual task performance in normal individuals**.** Presented to the Annual Convention of the American Speech-Language-Hearing Association, Chicago, IL.

**Hula, W.D.**, Austermann Hula, S.N., & Doyle, P.J. (May 2008). A preliminary evaluation of the reliability and construct validity of a self-reported communicative functioning item pool. Presented to the Clinical Aphasiology Conference, Jackson Hole, WY.

Sung, J.E., Dickey, M.W., McNeil, M.R., **Hula,W.D.**, Pratt,S.R., Ventura, M.B., Szuminsky, N., Kim, A., Fossett, T.R.D., Doyle, P.J., Musson, N. (May 2008) Relationships between working memory capacity and listening and reading sentence comprehension in normal elderly individuals and persons with aphasia. Presented to the Clinical Aphasiology Conference, Jackson Hole, WY.

**Hula, W.D.**, & McNeil, M.R. (November 2007). Lexical frequency in dual-task picture naming: Evidence for resource sharing. Presented to the Annual Convention of the American Speech-Language-Hearing Association, Boston, MA.

**Hula, W.D.,** McNeil, M.R., & Sung, J.E., (October 2007). Is there a reduction of language-specific processing capacity in aphasia? Presented to the Annual Meeting of the Academy of Aphasia, Washington, D.C.

**Hula, W.D.** & McNeil, M.R. (2007). Lexical frequency in dual-task picture naming: Evidence for resource sharing. Presented to the 13th meeting of the Cognitive Science Association for Interdisciplinary Learning, Hood River, OR, August.

**Hula, W.D.**, Gilbert, S. McNeil, M.R., Sung, J.E., Szuminsky, N., Fossett, T.R.D., Matthews, C.T., & Doyle, P.J. (May 2007). Dual-task lexical processing in the psychological refractory period method: Evidence for capacity sharing. Presented to the Clinical Aphasiology Conference, Scottsdale, AZ.

**Hula, W.D.**, & McNeil, M.R. (May 2007). Lexical frequency effects in dual-task picture naming. Presented to the Annual Clinical Aphasiology Conference, Scottsdale, AZ.

Doyle, P.J., McNeil, M.R., Le, K., & **Hula, W.D.** (May 2007). Measuring Communicative Functioning in Neurogenic Communication Disorders: Conceptual Foundation and Item Development. Presented to the Clinical Aphasiology Conference, Scottsdale, AZ.

**Hula, W.D.**, Doyle, P.J., Ross, K.B., Bost, J.E., McNeil, M.R. (May 2006). The reliability and responsiveness of the Burden of Stroke Scale. Presented to the University of Pittsburgh Medical Center Institute for Rehabilitation and Research Day, Pittsburgh, PA.

McNeil, M.R., **Hula, W.D.**, Matthews, C.T., Doyle, P.J., & Fossett, T.R.D. (October 2004). Auditory comprehension and visual-manual tracking dual-task performance in aphasia: Preliminary findings. Presented to the Annual Meeting of the Academy of Aphasia, Chicago, IL.

**Hula, W.D.**, Doyle, P.J., Mikolic, J.M., & McNeil, M.R. (May 2004). Rasch modeling of revised token test performance: construct validity, known-groups validity, and sensitivity to change. Presented to the Clinical Aphasiology Conference, Park City, UT.

Doyle, P.J., **Hula, W.D.,** Mikolic, J.M., McNeil, M.R., & Matthews, C.T. (May 2004). Rasch measurement of patient-reported communicative functioning: Initial development of an item bank. Presented to the Clinical Aphasiology Conference, Park City, UT.

Matthews, C.T., McNeil, M.R., **Hula, W.D**., Rubinsky, H.R., Fossett, T.R.D., & Doyle, P.J. (May 2004). A dual-task tool for quantifying normal comprehension of aphasic connected speech production: A constructive replication. Presented to the Clinical Aphasiology Conference, Park City, UT.

**Hula, W.D.**, McNeil, M.R., Durrant, J.D., & Doyle, P.J. (March 2004). Absolute magnitude scaling of autophonic loudness. Presented to the 12th Biennial Conference on Motor Speech, Albuquerque, NM.

Doyle, P.J, Mikolic, J., **Hula, W.D.**, & McNeil, M.R. (October 2003). Causal modeling of the relationships between emotional well-being, communication impairment, & related participation restrictions. Presented to the annual meeting of the International Society for Quality of Life Research, Prague, Czech Republic.

**Hula, W.D.**, McNeil, M.R., Rubinsky, H., & Fossett, T.R.D. (May 2003). Validation of a motor tracking task for use in dual-task studies of attention. Presented to the Clinical Aphasiology Conference, Orcas Island, WA.

Matthews, C., McNeil, M.R., Doyle, P.J., Rubinsky, H., Fossett, T.R.D., & **Hula, W.D.** (May 2003). The Story Retell Procedure: Validating different severity levels in aphasic story retells. Presented to the Clinical Aphasiology Conference, Orcas Island, WA.

McNeil, M. R., Doyle, P. J., Fossett, T. R. D., Rubinsky, H., Nixon, S., **Hula, W.D.**, & Brady, J. (May 2003). Passage dependency of multiple-choice questions for an auditory linguistic task. Presented to the Clinical Aphasiology Conference, Orcas Island, WA.

McNeil, M. R., Doyle, P. J., Rubinsky, H., **Hula, W.D.**, & Fossett, T. R. D. (May 2003). Using resource allocation theory and dual-task methods to increase the sensitivity of auditory comprehension assessment in aphasia. Presented to the 33rd Clinical Aphasiology Conference, Orcas Island, WA.

Doyle, P.J., Mikolic, J.M., McNeil, M.R., **Hula, W.D.,** Goda, A., & Oakley, M.A. (May 2002). Validation of the Burden of Stroke Scale (BOSS) Communication Facet. Presented to the Clinical Aphasiology Conference, Ridgedale, MO.

**Hula, W.D.**, McNeil, M.R., Doyle, P.J., Rubinsky, H. & Fossett, T.R.D. (May 2002). The inter-rater reliability of the Story Retell Procedure. Presented to the Clinical Aphasiology Conference, Ridgedale, MO.

Nixon, S.M, McNeil, M.R., Gibbon, D., Rubinsky, H.J., Doyle, P.J., Fossett, T.R.D., Park, G.H. & **Hula, W.D.** (May 2002). The serial position effect and lexical processing during story retelling in adults with and without aphasia. Presented to the Clinical Aphasiology Conference, Ridgedale, MO.

**INVITED PRESENTATIONS:**

**Hula, W.D.**, Kellough, S., Austermann Hula, S.N., & Doyle, P.J. (February 2016). Measuring Patient-Reported Aphasia Rehab Outcomes with the Aphasia Communication Outcome Measure. Portland State University Department of Speech and Hearing Sciences.

**Hula, W.D.**, Kellough, S., Austermann Hula, S.N., & Doyle, P.J. (October 30, 2015). Measuring patient-reported aphasia rehab outcomes with the Aphasia Communication Outcome Measure. Presented to the VA Pittsburgh Healthcare System Geriatric and Mental Illness Research Education and Clinical Centers Weekly Conference, Pittsburgh, PA.

**Hula, W.D.**, Fernandez-Miranda, J.C., Dickey, M.W., Pathak, S., Chang, Y.F., McNeil, M.R., & Doyle, P.J. (March 27, 2015). White matter correlates of lexical access in aphasia. Presented to the VA Pittsburgh Healthcare System Geriatric and Mental Illness Research Education and Clinical Centers Weekly Conference, Pittsburgh, PA.

**Hula, W.D.**. (July 2012). Aphasia: Neurological Considerations and Behavioral Treatment. Presented to the VA Pittsburgh Healthcare System Neuropsychology Fellows Continuing Education Series, Pittsburgh, PA.

**Hula, W.D** & Swoyer, B. (July 2011). Aphasia: Neurological Considerations and Behavioral Treatment. Presented to for VA Pittsburgh Healthcare System Neuropsychology Fellows Continuing Education Series, Pittsburgh, PA.

Schumacher, J., Swoyer, B., **Hula, W.D.**, Austermann-Hula, S.N., Biel, M., Doyle, P.J. (March 2011). Program for Intensive Residential Aphasia Treatment and Education (PIRATE): Phonological and semantic treatment approaches. Presented to the 11th Annual National Meeting of the Association of VA Speech-Language Pathologists, Charleston,SC.

**Hula,W.D.** (February 2009). PIRATE: The Program for Intensive Residential Aphasia Treatment and Education. Presented to the VA Pittsburgh Healthcare System Geriatric Research Education and Clinical Center Weekly Conference, Pittsburgh, PA.

**Hula, W.D.** (November 2008). The dimensionality of patient-reported cognitive and communicative functioning in stroke survivors: Evidence from the Burden of Stroke Scale. Presented to the Annual meeting of the Academy of Neurologic Communication Disorders and Sciences, Chicago, IL.

**Hula, W.D.**, & McNeil, M.R. (2007). Lexical frequency in dual-task picture naming: Evidence for resource sharing and application to aphasia. Presented to the Southwestern Pennsylvania Association of Speech and Hearing Association Annual ASHA Revisited Meeting, Pittsburgh, PA.

McNeil, M.R. & **Hula, W.D.** (September 2007). Attention and aphasia. Presented to the 2nd Annual Eleanor M. Saffran Cognitive Neuroscience Conference, Philadelphia, PA.

Doyle, P.J., **Hula, W.D.,** Mikolic, J.M., McNeil, M.R., & Matthews, C.T. (March 2005). Advancing the measurement of communicative functioning: Rasch modeling and item banking. Presented to the 5th Annual National Meeting of the Association of VA Speech-Language Pathologists, West Palm Beach, FL.

**Hula,W.D.** (2003). Absolute magnitude scaling of autophonic loudness. Presentation to the UCSD/SDSU Joint Doctoral Program in Language and Communicative Disorders Student Colloquium, San Diego, CA

**Hula, W.D.** (2001). Differential diagnosis of progressive cognitive-communication impairment. Case presentation to the University of Pittsburgh Aphasia Clinical Grand Rounds, Pittsburgh, PA

**Hula, W.D.** (2000). Transcortical motor aphasia. Case presentation to the University of Pittsburgh Aphasia Clinical Grand Rounds, Pittsburgh, PA

**RESEARCH FUNDING - Submitted**

Dickey, M.W. (PD/PI) & **Hula, W.D. (PD/PI)** (2018-2022). *Optimizing and understanding semantic feature analysis treatment for aphasia: A randomized controlled comparative-effectiveness trial.* VA RR&D Merit Review I01RX000832. $1,498,207

**Hula, W.D. (PD/PI)** & Doyle, P.J.(2018-2023). *Optimizing and understanding semantic feature analysis treatment for aphasia: A randomized controlled comparative-effectiveness trial.* NIDCD R01DC000000. $2,648,575

**RESEARCH FUNDING - Current**

Cohen, M.L. (PI) (*Patient- and Family-Centered Interpretation of Outcome Measures for Persons with Neurogenic Communication Disorders.* Moore Foundation Patient and Family Engagement Early-Career Investigator Award. Role on Project: consultant

Gravier, M.L. (PI) (2018-2019). *Immediate and Cumulative Effects of rTMS on Brain Activation in Chronic Aphasia.* VA RR&D SPiRE RX-002566. $199,626. Role on Project: co-investigator

Evans, W.S. (PI), (2017-2019). *Optimizing Task Engagement in Computer-Based Aphasia Treatment.* VA RR&D CDA-1 1 IK1 RX002475-01. $151,100. Role on Project: primary mentor.

**Hula, W.D. (PI). (**2015-2019). *Responsiveness, Stability, and Validity of Patient-Reported Outcomes in Aphasia.* VA RR&D Merit Review 1I01RX001963-01. $1,089,951

Fernandez-Miranda, J. C. (PD/PI) & **Hula, W.D. (PD/PI)** (2015-2020). *Language connectivity pathways and neuroplasticity in aphasic stroke patients.* NIDCD R01 DC013803-01A1. $1,783,856.

Fergadiotis, G. (PI) & **Hula, W.D.** (2015). *Assessment of anomia: Improving efficiency and utility using item response theory.* NIDCD R03 11687900. $419,974. Role on Project: co-investigator.

Wambaugh, J.L. (PI) (2015-2019) *Effect of intensity of treatment on rehabilitation of acquired apraxia of speech.* VARR&D Merit Review I01 RX-14-010. $1,090,500. Role on project: co-investigator

Dickey, M.W. (co-PI), Doyle, P.J. (co-PI), **Hula, W.D.,** Forman, S.D., Crosson, B., & Reilly, J. (2013-2017). *Dosage and neuroanatomical predictors of treatment response in aphasia*, VARR&D Merit Review 1I01RX000832-01A2. $1,096,118. Role on Project: co-investigator.

McNeil, M.R. (PI), Pratt, S., Fassbinder, W., Dickey, M.W., **Hula, W.D.,** Martin, N., Kendall, D., Patterson, J. (2013-2017). *Aphasic comprehension: conflict resolution and short-term memory*. VA RR&D Merit Review 1I01 RX001145-01A1. $1,098,915. Role on Project: co-investigator.

**RESEARCH FUNDING – Completed**

**Hula, W.D. (PI)** (2010-2015). *Communication Outcome Measurement in Aphasia.* VARR&D Level 2 Career Development Award Project 7476W. $856,200.

**Hula, W.D. (PI)** & Fernandez-Miranda, J. C. (2012-2014). *The Role of the Arcuate Fasciculus in Aphasic Naming,* Veterans Integrated Service Network 4 Competitive Pilot Project Fund. $49,100.

**Hula, W.D. (PI)** & Fernandez-Miranda, J. C. (2012-2013). *White Matter Neuroplasticity in Aphasia Treatment*, VA Pittsburgh Healthcare System Geriatric Research Education and Clinical Center Pilot Project. $25,000.

Austermann Hula, S.N. (PI) & **Hula, W.D.** (2010-2011). *Evaluation of a Self-Administered Version of the Burden of Stroke Scale*, VA Pittsburgh Healthcare System Geriatric Research Education and Clinical Center Pilot Project. $25,000. Role on Project: co-investigator

Doyle, P.J. (PI), McNeil, M.R., **Hula, W.D.,** & Stone, C.A. (2008-2012). *Communicative Functioning in Neurogenic Speech/Language Disorders II,* VA Rehabilitation Research and Development Merit Review Project C6098R. $869,525. Role on Project: post-doctoral research associate

**Hula, W.D. (PI)** (2008-2010). *Attention and Lexical Access in Aphasia and Apraxia of Speech*, VA RR&D Level I Career Development Award Project 6210M. $229,821 (salary support only).

**Hula, W.D. (PI)** (2008-2010) *Semantic and Phonological Impairments of Lexical Access in Aphasia*, Veterans Integrated Service Network 4 Competitive Pilot Project Fund Award. $36,000.

**Hula, W.D. (PI).** (2005-2006). *Resource and Bottleneck Mechanisms of Attention and Language*, VA Pittsburgh Healthcare System Geriatric Research Education and Clinical Center Pilot Project. $22,100.

McNeil, M.R. (PI) & Doyle, P.J. (PI) (2003-2006). *Cognitive and Linguistic Mechanisms of Language Performance in Aphasia.* VARR&D Merit Review Project. $500,800. Role on Project: pre-doctoral research associate.

**TEACHING EXPERIENCE:**

Guest lectures, "Measurement issues in speech-language pathology research," Introduction to Research University of Pittsburgh School of Health and Rehabilitation Sciences Department of Communication Disorders, Pittsburgh, PA., Spring 2006, 2008-2017

Guest lecture, "Phonetic transcription in aphasia and apraxia of speech," Phonetics, University of Pittsburgh School of Health and Rehabilitation Sciences Department of Communication Disorders, Pittsburgh, PA., Fall 2007 – 2009, 2011-2016

Teaching Assistant, Cognitive-Communication Disorders, University of Pittsburgh, Fall 2002

Teaching Assistant, Introduction to Research in Communication Disorders, University of Pittsburgh, Spring 2001

**ADVISING:**

**Graduate**

Dissertation committee member: KyoungYuel Lim, “Executive Attention Deficits in Persons with Aphasia: Conflict Resolution and Goal Maintenance,” 2011

M.S. thesis co-advisor: Angela Sperl, “Does Lemma Selection Require Central Attention? The Effects of Name Agreement on Dual-Task Picture Naming,” 2010

**Undergraduate**

B.Phil committee member: Molly Lane, 2014; Rebecca Hayes, 2011; Hallie Mintz, 2010

University of Pittsburgh First Experiences in Research mentoring: Maria Fenner, 2016; Priya Shah, 2016

**PROFESSIONAL ACTIVITIES AND SERVICE:**

American Speech-Language-Hearing Association *Lessons for Success,* advisory committee member, 2019-2023

Dunhill Medical Trust, Research Proposal Reviewer, January 2017

National Institute of Neurological Disorders and Stroke Special Emphasis Panel ZNS1 SRB G (10), member, November 2016

American Speech-Language-Hearing Association Annual Convention Program Committee, Language Disorders in Adults Topic Area Co-chair, 2016

VA Rehabilitation Research and Development Career Development Program Panel II (RRD9), member, February 2016, August 2016, February 2017

VA Rehabilitation Research and Development Special Emphasis Panel/Scientific Review Group for Small Projects in Rehabilitation Research program (RRD3), member, Spring 2013, Fall 2015, Spring 2016, Fall 2016

American Speech-Language-Hearing Foundation Grant Review and Reviewer Training Program, participant, 2015, 2017

VA Pittsburgh Healthcare System Research and Development Committee, alternate voting member, October 2014 - present

American Speech-Language-Hearing Foundation New Century Doctoral Scholarship Program, reviewer, 2014

American Speech-Language-Hearing Association Ad Hoc Committee on Patient-Reported Outcomes, member, 2013-2016

Changing Healthcare Landscape Summit, American Speech-Language Hearing Association, invited attendee, October 5-7, 2012

American Speech-Language-Hearing Association Advisory Committee on Evidence-Based Practice, member, 2011-2013

American Speech-Language-Hearing Association Annual Convention, Language Disorders in Adults Program sub-committee member, 2011

NIDCD Research Symposium in Clinical Aphasiology, Program Committee member, 2011-present

Clinical Aphasiology Conference, Program Committee member, 2010

American Speech-Language-Hearing Association Annual Convention, Academic and Educational Issues Program sub-committee member, 2009

Member, Academy of Neurologic Communication Disorders and Sciences, 2008-present

Student Reviewer, Clinical Aphasiology Conference, 2003

**EDITORIAL CONSULTATION:**

American Journal of Speech-Language Pathology, ad hoc reviewer, 2010-2015, guest associate editor, 2013, 2015, 2016

Aphasiology, ad hoc reviewer, 2007-2012, 2015, 2016

Archives of Physical Medicine and Rehabilitation, ad hoc reviewer, 2009

Brain Injury, ad hoc reviewer, 2016

Cognitive Neuropsychology, ad hoc reviewer, 2010

Cortex, ad hoc reviewer, 2009

International Journal of Audiology, ad hoc reviewer, 2016

Journal of Communication Disorders, ad hoc reviewer, 2011-2014,2016,2017, 2018

Journal of Speech, Language, and Hearing Research, guest associate editor, 2008; ad hoc reviewer, 2007, 2009-2012

Language, Speech, and Hearing Services in the Schools, ad hoc reviewer, 2013

Neural Rehabilitation and Neural Repair, ad hoc reviewer, 2014

Neuropsychologia, ad hoc reviewer, 2014, 2015

Special Clinical Aphasiology Volumes of the Journal *Aphasiology*, reviewer, 2004-2006, 2010

Topics in Language Disorders, ad hoc reviewer, 2016

**HONORS AND AWARDS:**

American Speech-Language-Hearing Association Clinical Practice Research Institute, 2014

American Speech-Language-Hearing Association Research Mentoring-Pair Travel Award, 2012

New Investigator Travel Fellowship to attend NIDCD-supported Research Symposium in Clinical Aphasiology, 2003, 2004, 2007, Clinical Aphasiology Conference

Honorable Mention, Best Graduate Student Research, School of Health and Rehabilitation Sciences, University of Pittsburgh Medical Center Institute for Rehabilitation and Research Day, 2006.

American Speech-Language-Hearing Foundation Research Travel Award, 2005

American Speech-Language-Hearing Foundation New Century Doctoral Scholarship, 2004

VA Pre-Doctoral Training Fellowship, 2000-2003, VA Pittsburgh Healthcare System

Robert W. Peters Scholarship, 1996, University of North Carolina at Chapel Hill

Frances L. Phillips Travel Scholarship, 1994, University of North Carolina at Chapel Hill

**PROFESSIONAL CERTIFICATION & LICENSURE:**

Pennsylvania State Licensure in Speech-Language Pathology, 2000 to present

American Speech-Language-Hearing Association Certificate of Clinical Competence, 1998 to present

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