Robert B. Cavanaugh

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I'm a PhD candidate and ASHA-certified speech-language pathologist. My research aims to improve the effectiveness of aphasia rehabilitation services from two perspectives: (1) specifying the active ingredients of aphasia treatments and (2) accelerating the clinical implementation of aphasia research in clinical practice settings. To achieve these goals, my research combines training in aphasia treatment theory, quantitative methods and statistical programming, implementation science, and my clinical experiences as a speech-language pathologist. I'm also passionate about promoting quantitative methods and open science practices within the field of communication sciences and disorders.

Education

2018 —
PhD Candidate, Communication Science and Disorders
University of Pittsburgh, Pittsburgh, PA
Dissertation: Determinants of Multilevel Discourse Outcomes in Anomia Treatment for Aphasia

2015
M.S. Speech and Hearing Sciences
University of North Carolina at Chapel Hill, Chapel Hill, NC
Thesis: Working Memory Capacity and Subjective Communication Difficulties in High Level Aphasia

2013
B.A. Communication Science and Disorders
University of Pittsburgh, Pittsburgh, PA

Professional Experience

2018 —
Graduate Student Researcher
Language Rehab and Cognition Lab, University of Pittsburgh
PI: William S. Evans

Speech Pathology and Audiology, VA Pittsburgh Healthcare System
PI: William D. Hula & Michael Walsh Dickey

2015 — 2018
Speech-Langauge Pathologist
Carolinas Rehabilitation, Atrium Health

2016 — 2018
Speech-Langauge Pathologist
Carolinas Neurosciences Institute, Atrium Health

2013 — 2015
Graduate Research Assistant
Center for Aphasia and Related Disorders, UNC - Chapel Hill
PI: Katarina Haley

2010 — 2013	Undergraduate Research Assistant
	Eye and Ear Institute, University of Pittsburgh Medical Center
	PI: Patrick Sparto

Grant Support

2021 — 2023	NIH-NIDCD F31 DC019853-01: Ruth L. Kirschstein National Research Service Award
	Determinants of multilevel discourse outcomes in anomia treatment for aphasia
	Role: PI; Impact Score: 25; Direct Costs: $68,482
	Sponsors: Michael Walsh Dickey & William S. Evans

2021 — 2023	Audrey Holland Endowed Award
	Determinants of multilevel discourse outcomes in anomia treatment for aphasia
	Role: PI; Direct Costs: $2000

2019 — 2021	NIH-NCATS TL1 University of Pittsburgh Clinical & Translational Science Fellowship
	Comparing Treatment Intensity between Research and Clinical Practice in Post-Stroke Aphasia
	Role: Predoctoral Fellow; PI: Kraemer (TL1TR001858)
	Mentors: Michael Walsh Dickey, William S. Evans, & Catherine Palmer

2019	School of Health and Rehabilitation Sciences Research Development Fund
	Role: PI; Direct Costs: $1000
	Faculty Sponsor: William S. Evans

Scholarships and Awards

2022	NIH-NIDCD Academy of Aphasia conference grant (R13 DC017375-01)
2022	Plural Publishing Research Scholarship
2020	ANCDS Conference Student Fellowship
2020	NIH-NIDCD Academy of Aphasia conference grant (R13 DC017375-01)
2019	NIH-NIDCD Fellowship: Research Symposium in Clinical Aphasiology
2014	Adult Communication Disorders Annual Scholarship, UNC-Chapel Hill
2014	Robert W. Peters Award for excellence in research, UNC-Chapel Hill

Peer-reviewed Publications

2022	**Cavanaugh, R.,** Quique, Y.M., Swiderski, A.M., Kallhoff, L.,Terhorst, L., Wambaugh J., Hula, W.D., Evans, William S (In Press). Reproducibility in small-N treatment research: a tutorial using examples from aphasiology. Journal of Speech, Language, and Hearing Research.
	Quique, Y. M., **Cavanaugh, R.,** Lescht, E., & Evans, W. S. (2022). Applying adaptive distributed practice to self-managed computer-based anomia treatment: A single-case experimental design. Journal of Communication Disorders, 99, 106249. https://doi.org/10.1016/j.jcomdis.2022.106249
	Boyle, M., Akers, C. M., **Cavanaugh, R.,** Hula, W. D., Swiderski, A. M., & Elman, R. J. (2022). Changes in discourse informativeness and efficiency following communication-based group treatment for chronic aphasia. Aphasiology, 1-35.

Nguy, B., Quique, Y.M., **Cavanaugh, R.,** Evans, William S. (2022) Representation in aphasia research: an examination of US treatment studies published between 2009 and 2019. American Journal of Speech-Language Pathology

Cavanaugh R, Quique YM, Dickey MW, Hula WD, Boss E, & Evans WS (2022). Practice-Related Predictors of Semantic Feature Verification Treatment for Aphasia. American Journal of Speech-Language Pathology. https://doi.org/10.1044/2021_AJSLP-21-00296

2021   **Cavanaugh, R.,** Kravetz C., Jarold L., Quique Y., Turner R., & Evans, W.S. (2021). Is There a Research–Practice Dosage Gap in Aphasia Rehabilitation? American Journal of Speech-Language Pathology, 30(5), 2115–2129. 10.1044/2021_AJSLP-20-00257.

Evans W.S., **Cavanaugh R.,** Quique Y, Boss E, Starns J.J., & Hula W.D. (2021). Playing With BEARS: Balancing Effort, Accuracy, and Response Speed in a Semantic Feature Verification Anomia Treatment Game. Journal of Speech, Language, and Hearing Research. https://doi.org/10.1044/2021_JSLHR-20-00543

Kersey, J., Evans, W. S., Mullen, K., Askren, A., **Cavanaugh, R.,** Wallace, S. E., Hula, W. D., Walsh Dickey, M., Terhorst, L., & Skidmore, E. (2021). Metacognitive Strategy Training Is Feasible for People With Aphasia. OTJR: Occupation, Participation and Health. https://doi.org/10.1177/15394492211023196

Evans, W. S., **Cavanaugh, R.,** Gravier, M. L., Autenreith, A. S., Doyle, P. J., Hula, W. D., Dickey Michael, W., & Dickey, M. W. (2021). Effects of Semantic Feature Type, Diversity, and Quantity on Semantic Feature Analysis Treatment Outcomes in Aphasia. American Journal of Speech-Language Pathology. https://doi.org/10.1044/2020_AJSLP-19-00112

2020   **Cavanaugh, R.B.,** Haley, K.L. (2020). Subjective communication difficulties in very mild aphasia. American Journal of Speech-Language Pathology, 29(1S), 437–448. https://doi.org/10.1044/2019_AJSLP-CAC48-18-0222

Refereed Presentations

2022   **Cavanaugh R.,** Swiderski, A., Goldberg, E., Hula, W.D., Evans, W.S., Dickey, M.W.., (2022) Within-trial evidence for the Importance of Feature Generation during Semantic Feature Analsyist. Platform accepted at Academy of Aphasia (October 2022).

Cavanaugh R., Swiderski, A., Hula, W.D., Fergadiotis, G., Steel, S., (2022) The PNT-CAT: A Computer Adaptive Test Version of the Philadelphia Naming Test. Poster presented at the International Aphasia Rehabilitation Conference (June 2022).

Cavanaugh, R, Brancamp, T, Harmon, T, Wallace, S, Biel, M, Hambridge, T, Caputo, M, Evans, WS (2022). Measuring Post-traumatic Growth in People with Aphasia. Abstract for poster presentation, annual Clinical Aphasiology Conference (May 2022). Wrightsville Beach, NC

Brancamp, T, **Cavanaugh, R,** Harmon, T, Wallace, S, Biel, M, Hambridge, T, Caputo, M, Evans, WS (2022). Individual-level predictors of post-traumatic growth and depreciation in aphasia. Abstract for platform presentation, annual Clinical Aphasiology Conference (May 2022). Wrightsville Beach, NC

Goldberg, E, Dickey, M.W., Hula, W.D., **Cavanaugh, R.** Swiderski, A., Autenreith, Alyssa. (2022). Cognitive functions supporting learning over time in naming treatment for aphasia. Abstract for platform presentation, annual Clinical Aphasiology Conference (May 2022). Wrightsville Beach, NC

Schliep, M., **Cavanaugh, R.,** , Tierney-Hendricks, C., Schnek, S., Douglas, N., (2022). Leveraging Implementation Science to Advance the Reach of Aphasia Best Practices. Abstract for roundtable presentation, annual Clinical Aphasiology Conference (May 2022). Wrightsville Beach, NC

Evans, WS, Kelly, A, Meyer, E, Skidmore, E, Pompon, R, Flowers, R, Cavanaugh, R (2022). Adapting acceptance and commitment therapy for stroke survivors with aphasia. Abstract for platform presentation, annual Clinical Aphasiology Conference (May 2022). Wrightsville Beach, NC.

Steel, S., **Cavanaugh R.,** Fergadiotis, G., Hula, W.D., (2022) Bridging the gap: Measuring perceived barriers and facilitators of a novel anomia assessment tool. Lightning talk, Implementation Science is for All: A CSD Practice-Research Exchange (April 2022). Online

2021   Evans, W.S., Quique, Y.M., **Cavanaugh, R,** Lescht, E. (2021). Effects of adaptive distributed practice and stimuli variability in flashcard-based anomia treatment. Abstract for poster presentation, 59th Academy of Aphasia, Online

Cavanaugh, R. Quique, Y, Boss, E, Hula, W.D., and Evans, W.S. (2021). Practicing with BEARS: Active Ingredients in Semantic Feature Analysis. Abstract for poster presentation, 51st annual Clinical Aphasiology Conference, Online

Evans, W.S., **Cavanaugh, R.,** Quique, Y., Boss,E., Dickey, M.W., Doyle , P, Starns,J.J.,and Hula, W.D., (2021). BEARS-Balancing Effort, Accuracy, and Response Speed in semantic feature verification anomia treatment. Abstract for platform presentation, 50th annual Clinical Aphasiology Conference, Online..

Quique,Y., **Cavanaugh, R.,** Starns, J.J., Boss, E., Hula, W.D., and Evans, W.S. (2021). Estimating the speed-accuracy tradeoff "Sweet Spot" in language performance for people with aphasia: replication and extension of a diffusion-model based approach. Abstract for poster presentation, 50th annual Clinical Aphasiology Conference, Online.

Boyle M, Akers C, **Cavanaugh R.**, Hula WD, Swiderski A, Elman R. (2021) Changes in informativeness following communication-based group treatment for chronic aphasia   . Abstract for platform presentation, 50th annual Clinical Aphasiology Conference, Online.

Akers, C, Boyle M, Swiderski A, Hula WD, **Cavanaugh R.,** Elman R. (2021) Using complete utterances to measure change in conversational discourse following communication- based group treatment. Abstract for poster presentation, 51st annual Clinical Aphasiology Conference, Online

Cavanaugh, R., Kravetz, C., Jarold, L., Quique, Y., Turner, R., Evans, W.S. (2021). Is there a research-practice dosage gap in aphasia rehabilitation? Abstract for poster presentation, Aphasia Access Leadership Summit, online.

Nguy, B, **Cavanaugh, R.**, Quique, Y, Evans, WS. (2021). Are Aphasia Research Participants Representative of the Post-Stroke Aphasia Population in the US? Abstract for poster presentation, Aphasia Access Leadership Summit. Online conference.

2020	**Cavanaugh, R.**, Kravetz, C., Jarold, L., Quique, Y., Turner, R., Evans, W.S. (2020). Is there a research-practice dosage gap in aphasia rehabilitation? Abstract for poster presentation, 16th Annual Rehabilitation Institute Research Day. Pittsburgh, PA
	Cavanaugh, R., Terhorst, L., Swiderski, A.W., Hula, W.D., Evans, W.S. (2020). A Systematic Appraisal of Individual Effect Sizes in Aphasia Single-Case Designs via Simulation. Abstract for poster presentation, 58th Academy of Aphasia, Philadelpha PA.
	Evans, WS, **Cavanaugh, R.**, Quique, Y, Boss, E, Dickey, MW, Doyle, P, Starns, J, and Hula, W (2020). BEARS- Balancing Effort, Accuracy, and Response Speed in semantic feature verification anomia treatment. Abstract for platform presentation, annual Academy of Aphasia Conference (virtual online conference).
	Cavanaugh, R., Kravetz, C., Evans, W.S. Utilization and Disparities in Outpatient Aphasia Rehabilitation in Western Pennsylvania. Abstract for poster presentation, Pennsylvania Speech-Language Hearing Association Annual Conference, Pittsburgh, PA (Conference Canceled).
2019	**Cavanaugh, R.,** Evans, W.S., Gravier, M., Autenreith, A., Ashmore, E., Doyle, P., Hula, W., Dickey, M.W., (2019). Do the kinds of features that patients generate during Semantic Feature Analysis affect treatment outcomes? Poster presented at the 2019 Clinical Aphasiology Conference in Whitefish, MT.
2018	**Cavanaugh, R.B.,** Haley, K.L. (2018) Subjective communication difficulties in very mild aphasia. Abstract for poster presentation, 48th annual Clinical Aphasiology Conference, Austin, TX.
2014	**Cavanaugh, R.B.,** & Haley, K. (2014, April) Accounting for Aphasia-Related Language Deficits in Verbal Working Memory Assessments: A Literature Review. Poster presented at the 2014 SPHS Student Research Day in Chapel Hill, NC.

Software & Technology

2022	**Cavanaugh, R.,** Swiderski, A.M., Hula, W.D. (2022). acom: The Aphasia Communication Outcome Measure. Version 0.4.0.2 Available from https://github.com/rbcavanaugh/acom.
2022	**Cavanaugh, R.,** Aphasia Research Finder. https://aphasiaresearch.org
2022	**Cavanaugh, R.,** Swiderski, A.M., Fergadiotis, G. & Hula, W.D. (2022). pnt: Computer adaptive forms of the Philadelphia Naming Test. Version 0.0.0.9 Available from https://github.com/rbcavanaugh/pnt.
2021	Kowalski, J., and **Cavanaugh R.** (2021). TBDBr: Easy Access To TalkBankDB via R API. https://github.com/TalkBank/TalkBankDB-R

Teaching

2022	Introduction to R: Workshop for incoming PhD students in CSD - University of Pittsburgh
	• Led, organized, and co-designed 3-day hybrid-remote workshop
	Introduction to R: Workshop for faculty, staff, and students in CSD - University of Pittsburgh
	• Led, organized, and co-designed 3-day hybrid-remote workshop

	CSD M.S. Clinical Integration Project
	• Review and feedback for M.S. - SLP students 1st year projects
2021	SPHS-S 685: Research and Ethics in Speech, Language, and Hearing Sciences (University of Indiana Bloomington; Dr. Brielle Stark)
	• Guest Lecture: Writing an NIH NRSA F31 Fellowship Application
	CSD M.S. Summative Assessment Project
	• Review and feedback for M.S. - SLP students comprehensive exams
2020	CSD 2230: Neurogenic Language and Cognitive Communication Disorders
	• Guest Lecture 1: TBI: Pathophysiology and Medical Considerations • Guest Lecture 2: Case studies in adult neurological communication disorders
	SPHS 742: Aphasia (University of North Carolina at Chapel Hill; Dr. Katarina Haley)
	• Guest Lecture: Applying treatment research in clinical practice settings
	CSD M.S. Summative Assessment Project
	• Review and feedback for M.S. - SLP students comprehensive exams
2019	CSD 2230: Neurogenic Language and Cognitive Communication Disorders
	• Guest Lecture 1: TBI: Pathophysiology and Medical Considerations • Guest Lecture 2: Case studies in adult neurological communication disorders
	CSD M.S. Summative Assessment Project
	• Review and feedback for SLP students comprehensive exams

Professional Memberships

2021 —	Member, Collaboration of Aphasia Trialists: Effectiveness of Aphasia Interventions, Implementation Science
2020 —	Member, Aphasia Access
2020 —	Member, Academy of Neurologic Communication Disorders and Sciences
2016 —	CCC-SLP: American Speech-Language and Hearing Association (ASHA)
2015 —	SLP: Board of Examiners in Speech-Language Pathology, North Carolina
2015 —	Member, ASHA SIG 2: Neurogenic Communication Disorders

Service

2022 —	Ad hoc reviewer. Journal of Speech Language Hearing Research
2022 —	Ad hoc reviewer. American Journal of Speech-Language Pathology.
2021 —	Ad hoc reviewer (mentored). Aphasiology
2020 — 2022	Ad hoc reviewer (mentored). Journal of Speech Language Hearing Research
2020 — 2022	Ad hoc reviewer (mentored). American Journal of Speech-Language Pathology.
2020 — 2021	Ad hoc reviewer, ASHA Annual Convention: Adult Language Section

Media

2021	"Voltage Drop and Aphasia Treatment: Thinking About the Research-Practice Dosage Gap in Aphasia Rehabilitation: A Conversation with Rob Cavanaugh" Aphasia Access Conversations podcast, episode #77, October 28, 2021.