

Arianna N. LaCroix, Ph.D., CCC-SLP

Assistant Professor, Department of Speech, Language and Hearing Sciences, Purdue University
Lyles-Porter Hall, Room 3154, 715 Clinic Drive, West Lafayette, IN. 47907
(765) 496-6219 | anlacroi@purdue.edu

EDUCATION

- 2019 Ph.D., Speech and Hearing Science, Arizona State University
- 2015 M.S., Communication Disorders, Arizona State University
- 2011 B.S., Psychology, University of Vermont

PROFESSIONAL APPOINTMENTS

- 2022- Assistant Professor, Department of Speech, Language, and Hearing Sciences, Purdue University
- 2022- Faculty Associate, Center for Research on Brain, Behavior, and NeuroRehabilitation, Purdue University
- 2022- Faculty Associate, Center on Aging and the Life Course, Purdue University
- 2022- Faculty Associate, Purdue Institute for Integrative Neuroscience, Purdue University
- 2018-2022 Assistant Professor, Speech-Language Pathology Program, Midwestern University-Glendale
- 2019- Adjunct Faculty, College of Health Solutions, Arizona State University
- 2018 Clinical Supervisor, Arizona State University Speech and Hearing Clinic
Clinical Populations: Aphasia, TBI
- 2014-2019 Site Project Manager, Multisite Aphasia Research Consortium (NIDCD, R01 DC009659 & DC03681), Arizona State University

PUBLICATIONS: PEER-REVIEWED

(* = Student under my mentorship; † = co-first author listed in alphabetical order)

1. **LaCroix, A. N.**, *Perreira, S., & *McMillon, A. (2023). Preliminary evidence comparing three auditory attention network tests in people with aphasia and matched controls. *Aphasiology*, 1-19. DOI: 10.1080/02687038.2023.2244168.
2. Wolford, G. W., Wash, E. J., *McMillon, A. R., & **LaCroix, A. N.** (2023). How does training format and clinical education model impact fidelity and confidence in a speech-language pathology rotation? *Advances in Health Sciences Education*, 1-27.
3. Fissel Brannick, S., Sebranek, E., Anderson, E., Ratiu, I., & **LaCroix, A. N.** (2023). Empathy interacts with second language proficiency to modify executive control of attention to social information [Special issue]. *Translational Issues in Psychological Science*. DOI: 10.1037/tps0000379
4. **LaCroix, A. N.**, *Greene-Winek, A., *Simon, S., *Groth, H., & Ratiu, I. (2023). A Verbal Card Sorting Task to Measure Executive Functions. *American Journal of Speech-Language Pathology*, 1-7.

5. *Dovorany, N., Brannick, S., Johnson, N., Ratiu, I., & **LaCroix, A. N.** (2023). Happy and sad music acutely modulate different types of attention in older adults. *Frontiers in Psychology*, *14*, 172.
6. Farahbod, H., Rogalsky, C., Keator, L. M., Cai, J., Pillay, S. B., Turner, K., **LaCroix, A.N.**,... & Saberi, K. (2022). Informational Masking in Aging and Brain-lesioned Individuals. *Journal of the Association for Research in Otolaryngology*, 1-13.
7. Rogalsky, C., Basilakos, A., Rorden, C., Pillay, S., **LaCroix, A. N.**, Keator, L., Mickelsen, S., Anderson, S. W., Love, T., Fridriksson, J., Binder, J., & Hickok, G. (2022). The neuroanatomy of speech processing: A large-scale lesion study. *Journal of Cognitive Neuroscience*, *34*(8), 1355-1375.
8. **LaCroix, A. N.**, *James, E., & Rogalsky, C. (2021). Neural resources supporting language production versus comprehension in chronic post-stroke aphasia: an activation likelihood estimate study. *Frontiers in Human Neuroscience*, 1-23.
9. †Fitzhugh, M. C., †**LaCroix, A. N.**, & Rogalsky, C. (2021). Distinct contributions of working memory and attentional control to sentence comprehension in noise in persons with stroke. *Journal of Speech, Language, and Hearing Research*, 1-12.
10. **LaCroix, A. N.**, Baxter, L. C., & Rogalsky, C. (2021). Auditory attention following a left hemisphere stroke: comparisons of alerting, orienting, and executive control performance using an auditory Attention Network Test. *Auditory Perception and Cognition*, 1-14.
11. **LaCroix, A. N.**, Tully, M., & Rogalsky, C. (2020). Assessment of alerting, orienting, and executive control in persons with aphasia using the Attention Network Test. *Aphasiology*, 1-16.
12. **LaCroix, A. N.**, Blumenstein, N., Tully, M., Baxter, L. C., & Rogalsky, C. (2020). Effects of prosody on the cognitive and neural resources supporting sentence comprehension: A behavioral and lesion-symptom mapping study. *Brain and Language*, *203*, 104756.
13. **LaCroix, A. N.**, Blumenstein, N., Houlihan, C., & Rogalsky, C. (2019). The effects of prosody on sentence comprehension: Evidence from a neurotypical control group and seven cases of chronic stroke. *Neurocase*, 1-12.
14. Rogalsky, C., **LaCroix A. N.**, Chen, K., Anderson, S. W., Damasio, H., Love, T., & Hickok, G. (2018). The neurobiology of agrammatic sentence comprehension: a lesion study. *Journal of Cognitive Neuroscience*, *30*(2), 234-255.
15. **LaCroix, A.**, Diaz, A. F., & Rogalsky, C. (2015). The relationship between the neural computations for speech and music is context-dependent: a review and meta-analysis. *Frontiers in Psychology*, *6*, 1138.

INVITED TALKS & ORAL CONFERENCE PRESENTATIONS

1. Rogalsky, C. & **LaCroix, A.N.** (2023). Catching the first pitch: a proposed dynamic functional network of linguistic prosody. Oral Presentation, Auditory Perception, Cognition, and Action Meeting, San Francisco, CA.
2. **LaCroix, A. N.** (2023, September). *Improving language comprehension in aphasia through cognition*. Center for Aging and the Life Course Fall Colloquium. Purdue University, West Lafayette, IN.
3. **LaCroix, A. N.** (2023, March). *Improving language comprehension in aphasia through cognition*. Cognitive Psychology Colloquium. Purdue University, West Lafayette, IN.

4. **LaCroix, A. N.** & Rogalsky, C. (2020, November). *Auditory attention in persons with aphasia: comparisons of alerting, orienting, and executive control performance in an auditory Attention Network Test*. Paper presented at the 19th annual Auditory Perception, Cognition, and Action Meeting, Virtual event.
5. Christensen, S., Lyons, J., & **LaCroix, A. N.** (2020, November). *Attention Control in Aphasia: Insights Gained from a Non-verbal Auditory Attention Control Task*. Paper presented at the 2020 American Speech-Language-Hearing Association Annual Convention, San Diego, CA, USA (event canceled).
6. Wash, E., Wolford, G., & **LaCroix, A. N.** (2020, November). *Clinical Education Outcomes from an Intensive Aphasia Treatment Protocol*. Paper presented at the 2020 American Speech-Language-Hearing Association Annual Convention, San Diego, CA, USA (event canceled).
7. **LaCroix, A. N.** & Rogalsky, C. (2019, March). *Alerting, orienting, and executive control: Post-stroke effects of attention abilities on speech comprehension*. Paper presented at the 2019 Cognitive Neuroscience Society Meeting, San Francisco, CA, USA.
8. **LaCroix, A.**, Fitzhugh, M. C., & Rogalsky, C. (2018, March). *Combining the powers of neuroimaging and neuropsychology to improve speech comprehension post-stroke*. Invited CEU oral presentation, Community Partnerships: Research and Supervision Update. Arizona State University, Tempe, AZ, USA.
9. **LaCroix, A.**, Cai, J., Baxter, L., & Rogalsky, C. (2016, November). *The relationship between functional reorganization, language and cognition post-stroke: A neuroimaging and behavioral case study*. Paper session presented at the 2016 American Speech-Language-Hearing Association Annual Convention, Philadelphia, PA, USA.
10. Rogalsky, C., **LaCroix, A.**, Chen, K., Andersen, S. W., Damasio, H., Love, T., & Hickok, G. (2015, October). *Damage to Broca's area OR the anterior temporal lobe is implicated in stroke-induced agrammatic comprehension: It depends on the task*. Paper session presented at the 53rd Meeting of the Academy of Aphasia, Tucson, AZ, USA.
11. Cai, J., Diaz, A., **LaCroix, A.**, Blumenstein, N., Hays, G., Baxter, L., & Rogalsky, C. (2015, April). *Functional reorganization of language and music perception post-stroke: fMRI and behavioral evidence*. Paper session presented at the 2015 Arizona Speech-Language-Hearing Association Convention, Phoenix, AZ, USA.

POSTER PRESENTATIONS

(* = Student under my mentorship)

1. **LaCroix, A. N.** (2023, October). Auditory versus visual attention and sentence comprehension in aphasia. Poster session presented at the 61st Annual Academy of Aphasia Meeting, Reading, UK.
2. Fissel Brannick, S., *Dovorany, N. & **LaCroix***, A. N. (2023, March). *Differential effects of music on attention in aging adults*. Poster session presented at the 30th Cognitive Neuroscience Society Meeting, San Francisco, CA, USA.
3. Ratiu, I. & **LaCroix, A. N.** (2022, November). *Alerting, orienting, and executive control attention in individuals with chronic mild traumatic brain injury*. Poster session presented at the Annual Meeting of the Psychonomic Society, Boston, MA.
4. *Levi, S., *Zwyghuizen, S., Smith, L., & **LaCroix, A. N.** (2022, April). *Adapting VNEST to treat Spanish language deficits in aphasia*. Poster session presented at the 2022 Arizona Speech-Language-Hearing Association Convention, Litchfield Park, AZ, USA.

5. *DeClue, E., *Schabarum, K., Wash, E., & **LaCroix, A. N.** (2022, April). *The effects of exercise on verbal language in aphasia*. Poster session presented at the 2022 Arizona Speech-Language-Hearing Association Convention, Litchfield Park, AZ, USA.
6. *McMillon, A., *Perreira, S., & **LaCroix, A.N.** (2022, April). *A preliminary study investigating the relationship between the Attention Network Test and the Test of Everyday Attention*. Poster presented at the 2022 Kenneth A Suarez Research Day, Midwestern University, Glendale, AZ, USA.
7. *Dovorany, N. & **LaCroix, A.N.** (2022, April). *The impact of music on attentional control performance*. Poster presented at the 2022 Kenneth A Suarez Research Day, Midwestern University, Glendale, AZ, USA.
8. Ratiu, I., *Greene-Winek, A., *Simon, S., *Groth, H., **LaCroix, A.N.** (2021, November). *Are complex verbal tasks more sensitive to deficits of mild traumatic brain injury?* Poster presented at the hybrid Annual Meeting of the Psychonomic Society, New Orleans, LA.
9. *Perreira, S., *McMillon, A., & **LaCroix, A.N.** (2021, November). *Auditory attention, visual attention, and speech perception in persons with aphasia: a preliminary study*. Poster presented at the 20th Annual Auditory Perception, Cognition, and Action Meeting, Virtual event.
10. *Groth, H., Ratiu, I., & **LaCroix, A.N.** (2021, April). *The relationship between word finding and cognition: an eye-tracking study*. Poster presented at the 2021 Kenneth A Suarez Research Day, Midwestern University, Glendale, AZ, USA.
11. Winek-Greene, A., **LaCroix, A.N.**, & Ratiu, I. (2021, April). *Executive function and lexical assess in individuals with mild traumatic brain injury*. Poster presented at the 2021 Kenneth A Suarez Research Day, Midwestern University, Glendale, AZ, USA.
12. *Levanovic, L., *Schumacher, S., & **LaCroix, A. N.** (2020, November). *Effects of an Intensive Therapy Program for Aphasia on Quality of Life*. Poster presented at the 2020 American Speech-Language-Hearing Association Annual Convention, San Diego, CA, USA (event canceled).
13. *Kure, G. & **LaCroix, A. N.** (2020, November). *Changes in Quality of Life Following Participation in a Conversation-Based Stroke Support Group*. Poster presented at the 2020 American Speech-Language-Hearing Association Annual Convention, San Diego, CA, USA (event canceled).
14. **LaCroix, A. N.** & Christensen, S. C., (2020, November). *Impact of an Intensive Treatment Program on Agrammatism in Persons with Aphasia*. Poster presented at the 2020 American Speech-Language-Hearing Association Annual Convention, San Diego, CA, USA (event canceled).
15. **LaCroix, A. N.**, *James, E., Hays, G., & Rogalsky, C. (2020, October). *The role of the right hemisphere in receptive and productive language recovery: an activation likelihood estimate study*. Poster session presented at the 2020 Meeting of the Society for the Neurobiology of Language, Virtual event.
16. Hsueh, Y., Zhu, H., **LaCroix, A. N.**, Fitzhugh, M. C., DePinto, E., Alaaf, Z., Mallapragada, S., Baxter, L. C., & Rogalsky, C. (2020, October). *An investigation of the relationships between right hemisphere structural MRI measures and language abilities in left hemisphere stroke survivors*. Poster session presented at the 2020 Meeting of the Society for the Neurobiology of Language, Virtual event.
17. Fitzhugh, M. C., **LaCroix, A. N.**, Rogalsky, C. (2020, October). *Distinct contributions of working memory and attentional control to sentence comprehension in noise in individuals with*

- left hemisphere stroke. Poster session presented at the 2020 Meeting of the Society for the Neurobiology of Language, Virtual event.
18. **LaCroix, A. N.**, Rehwalt, C., Ordaz, E., & Rogalsky, C. (2020, May). *Attention! Behavioral evidence of distinct contributions of attention and working memory to speech comprehension*. Poster session presented at the 2020 Cognitive Neuroscience Society Meeting, Boston, MA, USA.
 19. **LaCroix, A. N.**, Tully, M., Chao, S., Daliri, A., & Rogalsky, C. (2019, November). *An investigation of auditory motor integration following left hemisphere stroke using auditory feedback perturbation*. Poster session presented at the 2019 American Speech-Language-Hearing Association Convention, Orlando, FL, USA.
 20. **LaCroix, A. N.** & Rogalsky, C. (2019, March). *Alerting, orienting, and executive control: Post-stroke effects of attention abilities on speech comprehension*. Poster session presented at the 2019 Cognitive Neuroscience Society Meeting, San Francisco, CA, USA.
 21. **LaCroix, A. N.**, Cai, J., Baxter, L. C., & Rogalsky, C. (2018, November). *Using prosody to improve spoken language comprehension in aphasia*. Poster session presented at the 2018 American Speech-Language-Hearing Association Convention, Boston, MA, USA.
 22. **LaCroix, A. N.**, Cai, J., Baxter, L. C., & Rogalsky, C. (2018, April). *Using prosody to improve spoken language comprehension in aphasia*. Poster session presented at the 2018 Arizona Speech-Language-Hearing Association Convention, Tucson, AZ, USA.
 23. Rehwalt, C., **LaCroix, A. N.**, & Rogalsky, C. (2018, April). *The effects of music on auditory-motor integration for speech: A behavioral study of older adults*. Poster session presented at the 2018 Arizona Speech-Language-Hearing Association Convention, Tucson, AZ, USA.
 24. **LaCroix, A.**, Johnson, L., Blumenstein, N., Maze, S., Baxter, L. C., & Rogalsky, C. (2017, March). *The neurobiology of prosody and sentence structure: A fMRI study*. Poster session presented at the 2017 Cognitive Neuroscience Society Meeting, San Francisco, CA, USA.
 25. **LaCroix, A.**, Blumenstein, N., Houlihan, C., & Rogalsky, C. (2016, August). *Shared and distinct cognitive resources for syntax and prosody: a sentence comprehension study*. Poster session presented at the 2016 Meeting of the Society for the Neurobiology of Language, London, England.
 26. **LaCroix, A.**, Rogalsky, C., Chen, K., Hays, G., Anderson, S. W., Damasio, H., Love, T., & Hickok, G. (2015, March). *The neurobiology of agrammatic sentence comprehension: A lesion study*. Poster session presented at the 2015 Cognitive Neuroscience Society Meeting, San Francisco, CA, USA.

GRANTS

NIH Exploratory/Developmental Early Career Research Grant (1R21DC021481)

Title: Optimizing the assessment of auditory attention in aphasia.

Role: PI

Total Direct Costs: \$375,000

Status: Awarded.

American Speech Language Hearing Foundation New Investigators Research Grant

Title: Investigating music listening as a mechanism to improve attention and language in aphasia

Role: PI

Total Direct Costs: \$10,000
Status: Awarded.

American Heart Association Predoctoral Fellowship (18PRE33990328).
Title: The role of prosody in speech comprehension post-stroke.
Role: PI
Faculty Sponsor: Corianne Rogalsky, PhD
Total Direct Costs: \$53,688
Status: Awarded.

AWARDS and HONORS

2023	American Speech Language Hearing Foundation, ASHA Research Conference Grant (Lessons for Success)
2018	Graduate College Dissertation Completion Fellowship, Arizona State University (\$8500)
2018	Saffran Student Scholar, 13 th Annual Eleanor M. Saffran Conference on Cognitive Neuroscience and Rehabilitation of Communication Disorders (Travel Award)
2018	Graduate College Fellowship, Arizona State University (\$5000)
2016-2017	Marilyn Miller Quintana Moline Fellowship, Department of Speech and Hearing Science, Arizona State University (\$5300)
2015-2016	Graduate and Professional Student Association and Graduate Education Research Grant, Arizona State University (\$750)

TEACHING APPOINTMENTS

Purdue University: Instructor

2024	SLHS 44400 Intro to Research in Communication Sciences and Disorders
2022-	SLHS 11500 Introduction to Human Communicative Disorders
2022-	SLHS 51900 Cognitive Communication Disorders

Midwestern University: Instructor

2020-2021	SLPPG 628 Motor Speech Disorders
2019-2021	SLPPG 540 Diagnostic Assessment and Treatment Planning
2018-2022	SLPPG 526 Aphasia
2019	SLPPG 527 Neurological Disease and Injury

Arizona State University: Co-Instructor

2018	SHS 485 Acquired Speech and Language Disorders
------	--

STUDENT MENTORSHIP

Purdue University: Doctoral Level

Committee Member

Yesol Kim (Major Professor: Brandon Keehn, PhD)

Midwestern University: Master's Level

Thesis Committee Chair

Nicholas Dovorany (Biomedical Sciences Program; Graduated 2022)
Michael Ramirez (Speech-Language Pathology Program; Graduated 2022)
Sara Perriera (Speech-Language Pathology Program; Graduated 2022)
Hannah Groth (Speech-Language Pathology Program; Graduated 2021)

Thesis Committee Member

Emily Sebranek (Speech-Language Pathology Program; Graduated 2022)
Monica Bender (Speech-Language Pathology Program; Graduated 2022)
Alexandra Greene-Winek (Speech-Language Pathology Program; Graduated 2021)
Jeanine Lyons (Speech-Language Pathology Program; Graduated 2020)
Miyka Whiting (Speech-Language Pathology Program; Graduated 2020)

PROFESSIONAL AFFILIATIONS

2023 Academy of Aphasia, Member
2018-2023 Arizona Speech-Language-Hearing Association (ArSHA), Member
2016-present Society for the Neurobiology of Language, Member
2015-present Cognitive Neuroscience Society, Member
2015-2023 Arizona Department of Health Services Speech Language Pathology License
2013-present American Speech Language Hearing Association, Member (Certificate of Clinical Competence in Speech Language Pathology, 2017-Present)

PROFESSIONAL SERVICE

Purdue University: Department Service

2023 MS-SLHS Curriculum Committee and Standards
2022-present Ringel Symposium Program Committee (Co-Chair: 2023)
2022 Undergraduate Student Recruitment and Success Committee

Midwestern University: University Service

2022 Kenneth A Suarez Research Day Student Poster Judge
2019-2021 University Institutional Review Board Member, Midwestern University

Midwestern University: Department Service

2020-2021 Speech-Language Pathology Diversity Task Force Co-Chair, Midwestern University
2019-2022 Speech-Language Pathology Academic Review Committee Member, Midwestern University
2019-2022 Speech-Language Pathology Admissions Committee Member, Midwestern University
2019-2022 Speech-Language Pathology Research Committee Member, Midwestern University

Other Service

- Ongoing Journal Reviewer: *Aging, Neuropsychology, and Cognition*; *American Journal of Speech Language Pathology*; *Aphasiology*; *Auditory Perception*; *Cognitive and Behavioral Neurology and Cognition*; *Cortex*; *European Journal of Neuroscience*; *Frontiers in Psychology*; *JASA Express Letters*; *Psychological Reports*
- 2023 NIH Ad Hoc Reviewer for Member Conflict Panel: Language, Communication, Speech, and Motor Control
- 2022 Review of *Neuroanatomy for Speech-Language Pathology and Audiology, Second Edition* for Jones & Bartlett Learning
- 2022 Midwestern University Website Revision Focus Group
- 2022 Therapy Insight CEU Panelist (2022, January): Building Connections to Reduce Isolation and Improve Therapy Outcomes: <https://vimeo.com/665330471>
- 2021 SLP and Communication Disorders Webinar for Better Speech and Hearing Month, Midwestern University
- 2020-2022 Mentor for the Interprofessional Healthcare Course (COREG 1560), Midwestern University
- 2019-2022 SLPA Advisory Council Member, Estrella Mountain Community College