

PhD Candidate
Connecticut Institute for the Brain & Cognitive Sciences
Brain Imaging Research Center
Department of Psychological Sciences
University of Connecticut
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Charles P. Davis

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Summary

I am a cognitive scientist interested in understanding the cognitive and neural bases of semantic memory and its relation to language processing and representation. Broadly, how do we know what things mean, how does the brain give rise to those meanings, and how does language help us to access and organize those meanings? I use neuroimaging methods such as functional magnetic resonance imaging to answer these questions, in addition to a range of behavioral techniques. At a meta-scientific level, I am enthusiastic about open and reproducible science, advances in statistical analysis, and innovative data visualization.

Education

PhD, Psychological Sciences, *University of Connecticut*, Storrs, CT

Expected 2020

Advisor: Eiling Yee; Committee: Gerry Altmann, James Magnuson, Marie Coppola

MS, Psychological Sciences, *University of Connecticut*, Storrs, CT

Obtained 2018

Advisor: Eiling Yee; Committee: Gerry Altmann, James Magnuson, Marie Coppola

Honours BA, Psychology, *Brock University*, St. Catharines, ON, Canada

Obtained 2013

First-Class Standing; Minor: Philosophy; Concentration in German

Language Proficiency

- Fluent in English; Intermediate comprehension in German; Basic vocabulary in French

Awards and Distinctions

- CT Institute for the Brain and Cognitive Sciences IBRAiN Fellowship in Neuroimaging 2017–19
- CT Institute for the Brain and Cognitive Sciences Summer Graduate Fellowship 2016–17
- IGERT Innovation Incentive Grant 2016
- NSERC Ontario Graduate Scholarship (declined offer) 2015
- NSERC Canada Graduate Scholarship (runner-up) 2015
- Brock Scholar's Award 2008–12
- John Lavery Scholarship 2011
- Brock Alumni Honours Scholarship 2011
- Dean's Honours List 2008–13

Publications

- **Davis, C. P.**, Joergensen, G., Boddy, P., Dowling, C., & Yee, E. (under review). Making it harder to “see” meaning: The more you see something, the more its conceptual representation is susceptible to visual interference. Submitted to *Psychological Science*.
- **Davis, C. P.**, Altmann, G. T. M., & Yee, E. (under review). Situational systematicity: A role for schema in understanding the differences between abstract and concrete concepts. Submitted to *Cognitive Neuropsychology*.
- **Davis, C. P.**, Morrow, H. M., & Lupyan, G. (2019; preprint). What does a horgous look like? Nonsense words elicit meaningful drawings. *psyArxiv*. [doi:10.31234/osf.io/uve7d](https://doi.org/10.31234/osf.io/uve7d). Submitted to *Cognitive Science*.
- **Davis, C. P.**, Libben, G., & Segalowitz, S. J. (2019). Compounding matters: The P100 as an index of semantic access to compound words. *Cognition*. [doi:10.1016/j.cognition.2018.12.006](https://doi.org/10.1016/j.cognition.2018.12.006)
- **Davis, C. P.**, & Yee, E. (2018). Features, labels, space, and time: Factors supporting taxonomic relationships in the anterior temporal lobe and thematic relationships in the angular gyrus. *Language, Cognition and Neuroscience*. [doi:10.1080/23273798.2018.1479530](https://doi.org/10.1080/23273798.2018.1479530)
- **Davis, C. P.**, Paz-Alonso P. M., Altmann, G. T. M., & Yee, E. (in prep). Abstract concepts and the suppression of arbitrary episodic context. To be submitted to *Memory and Cognition*.
- Ryherd, K., **Davis, C. P.**, Yee, E., & Landi, N. (in prep). The role of language in two systems for category learning. To be submitted to *Canadian Journal of Experimental Psychology*.
- **Davis, C. P.** (in prep). Experiential association in a distributional and embodied experience account of semantic memory. To be submitted to *Psychological Bulletin*.
- Morrow, H. M., Joergensen, G. H., Seng, K., **Davis, C. P.**, & Yee, E. (in prep). The effects of posture and modality on abstract concept processing.

Conference Proceedings

- **Davis, C. P.**, Paz-Alonso P. M., Altmann, G. T. M., & Yee, E. (2019). Abstract concepts and the suppression of arbitrary episodic context. To appear in Proceedings of the 41st Annual Meeting of the Cognitive Science Society, Montreal, QC, Canada.
- **Davis, C. P.**, Libben, G., & Segalowitz, S. J. (2014). Compounding matters: The P1 as an index of semantic access to compound words. *Psychophysiology*, 51(Suppl 1), S34.

Selected Posters and Presentations

- Heffner, C. C., **Davis, C. P.**, & Myers, E. B. (2019, August). Behavioral and neural correlates of phonetic plasticity. To be presented at the 11th Annual Meeting of the Society for the Neurobiology of Language, Helsinki, Finland.
- **Davis, C. P.**, Paz-Alonso P. M., Altmann, G. T. M., & Yee, E. (2019, July). Abstract concepts and the suppression of arbitrary episodic context. To be presented at the 41st Annual Meeting of the Cognitive Science Society, Montreal, QC, Canada.
- **Davis, C. P.**, Paz-Alonso P. M., Altmann, G. T. M., & Yee, E. (2019, March). Is arbitrary episodic context suppressed in abstract concepts? Presented at the 26th Annual Meeting of the Cognitive Neuroscience Society, San Francisco, CA.
- **Davis, C. P.**, Paz-Alonso P. M., Altmann, G. T. M., & Yee, E. (2018, March). Encoding of episodic context in abstract and concrete concepts. Presented at the 25th Annual Meeting of the Cognitive Neuroscience Society, Boston, MA.
- Healy, R., Serino, J., **Davis, C. P.**, Joergensen, G., & Yee, E. (2018, March). Understanding “thunder” is more difficult than “rainbow” when performing an auditory task. Presented at the 25th Annual Meeting of the Cognitive Neuroscience Society, Boston, MA.
- **Davis, C. P.**, Joergensen, G., & Yee, E. (2017, November). Silence! An auditory task disrupts processing of auditorily experienced concepts. Presented at the 58th Annual Meeting of the Psychonomic Society, Vancouver, BC, Canada.
- **Davis, C. P.**, Joergensen, G., Boddy, P., Dowling, C., & Yee, E. (2017, November). Get your head out of the clouds: Performing a visual task makes it harder to think about art than music. Presented at the 25th Annual Workshop on Object Perception, Attention, and Memory, Vancouver, BC, Canada.

- **Davis, C. P.**, Libben, G., & Segalowitz, S. J. (2017, March). Why not both? Form and meaning affect early visual processing of compound words. Presented at the 30th Annual CUNY Conference on Human Sentence Processing, Cambridge, MA.
- **Davis, C. P.**, Libben, G., & Segalowitz, S. J. (2016, November). Word concreteness and the processing of compound words. Presented at the 57th Annual Meeting of the Psychonomic Society, Boston, MA.
- Libben, G., **Davis, C. P.**, & Segalowitz, S. J. (2016, February). *Compound words, semantic transparency, and metaphors for morphological representations in the brain*. Presented at International Morphology Meeting 17, Vienna, Austria.
- **Davis, C. P.**, Libben, G., & Segalowitz, S. J. (2014). Compounding matters: The P1 as an index of semantic access to compound words. *Psychophysiology*, 51(Suppl 1), S34.
- **Davis, C. P.**, Libben, G., & Segalowitz, S. J. (2014, September). *Morphological transcendence: Morphemic boundary ambiguity produces conflict at the N4*. Presented at the 9th International Meeting on the Mental Lexicon, Niagara-on-the-Lake, ON, Canada.
- **Davis, C. P.**, Libben, G. & Segalowitz, S. J. (2014, September). *Compounding matters: The P1 as an index of semantic access to compound words*. Presented at the 9th International Meeting on the Mental Lexicon, Niagara-on-the-Lake, ON, Canada.
- Martini, T. S., Capuana, L., Blank, C., **Davis, C. P.**, & Judges, R. (2014, January). *Psychology undergraduates' understanding of skill-based learning outcomes*. Presented at the Annual Meeting of the National Institute for the Teaching of Psychology, Tampa, FL.
- **Davis, C. P.** (2012). *Predicting homosexuality from digit ratios (2D:4D), handedness, and fraternal birth order: A multivariate analysis in men and women*. Undergraduate Honours Thesis, Brock University, St. Catharines, ON, Canada.

Teaching Experience

- Research in Psychology (University of Connecticut) 2019 – Present
 - Teaching Assistant: Lab Instructor
- Introductory Psychology (University of Connecticut) 2015 – 2017
 - Teaching Assistant: Lab Instructor
- Psychology of Language (University of Connecticut) 2015 – 2016
 - Teaching Assistant: Grader; Guest Lecturer
- Psychology Students' Transition to Work (Brock University) 2014 – 2015
 - Teaching Assistant: Grader
- Introduction to Psychology (Brock University) 2012 – 2013
 - Teaching Assistant: Seminar Facilitator
- Statistics and Research Design in the Behavioural Sciences (Brock University) 2010 – 2012
 - Teaching Assistant: Tutorial Instructor

Applied Experience

- CT Institute for the Brain and Cognitive Sciences/Brain Imaging Research Center 2017 – Present
 - Research Assistant in Neuroimaging
- Cactus Communications 2013 – Present
 - Academic Editor: Second-Language English Editing; Publication Support
- Introduction to Psychology: Gateways to Mind and Behavior (Mitterer and Coon, 2014) 2013 – 2014
 - Copyeditor
- Ontario Brain Injury Association 2011 – 2011
 - Research and Data Analysis Specialist (summer co-op position)

Service and Activity

Ad-hoc Reviewing

- Cognitive Science
- Journal of Experimental Psychology: Human Perception and Performance
- Journal of Experimental Psychology: General

Professional Affiliations

- Cognitive Neuroscience Society
- Cognitive Science Society
- Psychonomic Society

Students Mentored

- Brandon Strom (BSc, Cognitive Science).
 - Thesis: *The role of context in learning abstract and concrete concepts.*
- Roisin Healy (BSc, Psychological Sciences)
 - Thesis: *The role of autism-spectrum traits in the embodiment of manipulable object concepts.*

Committee Activity

- Graduate Student Advisory Committee: Representative 2016 – 2019
- Department of Psychological Sciences Computer Committee Student Representative 2016 – Present
- UCONN Brain Imaging Research Center High-School Visit Host 2018, 2019
- Eastern Connecticut State University Psychology Club Graduate Panelist 2018
- Department of Psychological Sciences Graduate Colloquium Night Organizer 2018, 2019
- CT Institute for the Brain and Cognitive Science Robust Statistics Workshop Organizer 2016 – 2016
- Expressive Communication and Origins of Meaning Reading Group Coordinator 2016 – 2016
- University of Connecticut IGERT Prospective Student Visit Committee 2016
- University of Connecticut IGERT TalkShop Series Moderator 2015 – 2016

Technical Skills

- R
- EEG acquisition
- EEG/ERP data analysis in EEGLab (Matlab)
- fMRI data analysis in AFNI, FSL, Freesurfer
- Linguistic and behavioral corpora/databases
- Human Connectome Project fMRI processing
- Shell scripting
- Experiment Builder software
- Presentation experiment design software
- PsychoPy experiment design software
- E-Prime experiment design software
- Python
- Qualtrics survey software
- Amazon Mechanical Turk