

Charles P. Davis, PhD

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Academic Positions

Postdoctoral Associate , Duke University, Durham, NC, USA	2022 –
Adjunct Professor , University of North Carolina-Chapel Hill, Chapel Hill, NC, USA	2022 –
Research Associate (Remote) , University of Wisconsin-Madison, Madison, WI, USA	2022
Postdoctoral Associate , Yale University, New Haven, CT, USA	2021 – 2022

Education

PhD, Psychological Science , University of Connecticut, Storrs, CT, USA Advisor: Eiling Yee; Committee: Gerry Altmann, James Magnuson, Marie Coppola	2021
MS, Psychological Science , University of Connecticut, Storrs, CT, USA Advisor: Eiling Yee; Committee: Gerry Altmann, James Magnuson, Marie Coppola	2018
BA, Psychology , Brock University, St. Catharines, ON, Canada Honours; First-Class Standing; Minor: Philosophy	2013

Peer-Reviewed Publications

- Davis, C. P.** (2023). Emergence of Covid-19 as a novel concept shifts existing semantic spaces. *Cognitive Science*. [doi:10.1111/cogs.13237](https://doi.org/10.1111/cogs.13237)
- Langland-Hassan, P. & **Davis, C. P.** (2022). A context-sensitive and non-linguistic approach to abstract concepts. *Philosophical Transactions of the Royal Society B*. [doi:10.1098/rstb.2021.0355](https://doi.org/10.1098/rstb.2021.0355)
- Davis, C. P.**, Eigsti, I. M., Healy, R., Joergensen, G. H., & Yee, E. (2022). Autism-spectrum traits predict the embodiment of manipulation knowledge about object concepts: Evidence from eye tracking. *PLOS ONE*. [doi:10.1371/journal.pone.0268069](https://doi.org/10.1371/journal.pone.0268069)
- Davis, C. P.**, Paz-Alonso P. M., Altmann, G. T. M., & Yee, E. (2021). Encoding and inhibition of arbitrary episodic context with abstract concepts. *Memory & Cognition*. [doi:10.3758/s13421-021-01212-y](https://doi.org/10.3758/s13421-021-01212-y)
- Davis, C. P.** & Yee, E. (2021). Building semantic memory from distributional language and embodied experience. *WIREs Cognitive Science*. [doi:10.1002/wcs.1555](https://doi.org/10.1002/wcs.1555)
- Davis, C. P.**, Joergensen, G., Boddy, P., Dowling, C., & Yee, E. (2020). Making it harder to “see” meaning: The more you see something, the more its conceptual representation is susceptible to visual interference. *Psychological Science*. [doi:10.1177/0956797620910748](https://doi.org/10.1177/0956797620910748)
- Botvinik-Nezer, R., Holzmeister, F., Camerer, C. F., Dreber, A. Huber, J., ... **Davis, C. P.**, ... Poldrack, R., & Schonberg, T. (2020). Variability in the analysis of a single neuroimaging dataset by many groups. *Nature*. [doi:10.1038/s41586-020-2314-9](https://doi.org/10.1038/s41586-020-2314-9)
- Davis, C. P.**, Altmann, G. T. M., & Yee, E. (2020). Situational systematicity: A role for schema in understanding the differences between abstract and concrete concepts. *Cognitive Neuropsychology*. [doi:10.1080/02643294.2019.1710124](https://doi.org/10.1080/02643294.2019.1710124)
- Davis, C. P.**, Morrow, H. M., & Lupyan, G. (2019). What does a horgous look like? Nonsense words elicit meaningful drawings. *Cognitive Science*. [doi:10.1111/cogs.12791](https://doi.org/10.1111/cogs.12791)
- 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. (2019). 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)

In Revision, Under Review, and in Preparation

- Davis, C. P.** & Yee, E. ([preprint](#)). Is time an embodied property of concepts?
- Davis, C. P.**, Joergensen, G. H., & Yee, E. (in prep). Auditory interference disrupts processing of auditorily experienced concepts: Taking embodiment into the multiverse.
- Menkov, V., Mui, K., **Davis, C. P.**, Lupyan, G., Bier, V., & Kantor, P. (in prep). The Game of Hidden Rules: A novel method and interface for evaluating human and machine rule-based learning.
- Ryherd, K., **Davis, C. P.**, Yee, E., & Landi, N. (in prep). The role of language in two systems for category learning.

Chapters, Commentaries, and Proceedings

- Davis, C. P.**, Yee, E., & Eigsti, I. M. (2022). Beyond the social domain: Autism-spectrum traits and the embodiment of manipulable object concepts. In S. L. Macrine & J. Fugate (Eds.), *Movement matters: How embodied cognition informs teaching and learning*. MIT Press.
- Ekves, Z., Prystauka, Y., **Davis, C. P.**, Yee, E., & Altmann, G. T. M. (2021). Psychology of cleansing through the prism of intersecting object histories. *Behavioral and Brain Sciences*. [doi:10.1017/S0140525X20000552](https://doi.org/10.1017/S0140525X20000552)
- Davis, C. P.**, Altmann, G. T. M., & Yee, E. (2020). Language as a mental travel guide. *Behavioral and Brain Sciences*, 43, E125. [doi:10.1017/S0140525X19003182](https://doi.org/10.1017/S0140525X19003182)
- Davis, C. P.**, Morrow, H. M., De Luca, M., & Lupyan, G. (2020). [The generality and origins of form-to-meaning iconicity](#). In Ravignani, A., Barbieri, C., Martins, M., Flaherty, M., Jadoul, Y., Lattenkamp, E., Little, H., Mudd, K. & Verhoef, T. (Eds.): *The Evolution of Language: Proceedings of the 13th International Conference (EvoLang13)*.
- Davis, C. P.**, Paz-Alonso P. M., Altmann, G. T. M., & Yee, E. (2019). [Abstract concepts and the suppression of arbitrary episodic context](#). In A. K. Goel, C. M. Seifert, & C. Freksa (Eds.), *Proceedings of the 41st Annual Conference of the Cognitive Science Society* (p. 1592–1598). Montreal, QC: Cognitive Science Society.

Invited Talks and Workshops

- How experience shapes semantic memory*. (2022). Talk presented at the University of North Carolina-Chapel Hill Cognitive Talk Series. University of North Carolina-Chapel Hill.
- How experience shapes semantic memory*. (2022). Talk presented at the Bergelson Lab Meeting. Duke University.
- How experience shapes meaning*. (2022). Talk presented at the Rutgers University Cognitive Science Club.
- How experience shapes semantic memory*. (2022). Talk presented at the Developmental Psychology Talk Series. University of Connecticut.
- Integrative semantic memory*. (2021). Talk presented at the Turk-Browne Lab Meeting. Yale University.
- The “cons” of using fMRI to understand cognition: Replicability and other obstacles*. Invited as part of a debate: *Using fMRI for cognitive research*. (2021). University of Connecticut Neurobiology of Language January Term Primer.
- Data visualization in R with ggplot2*. (2018). University of Connecticut Neurobiology of Language January Term Primer.

Posters and Presentations

- Drouin, J. R., & **Davis, C. P.** (2023, March). The lexical bias effect in adult cochlear implant users. Poster to be presented at the 50th Annual Meeting of the American Auditory Society, Scottsdale, AZ.
- Davis, C. P.** (2022, October). Emergence of Covid-19 as a novel concept has shifted existing semantic networks. Talk presented at the 9th International Meeting on the Mental Lexicon, Niagara-on-the-Lake, ON, Canada.
- Davis, C. P.**, & Yee, E. (2022, October). Time as an embodied property of concepts. Poster presented at the 9th International Meeting on the Mental Lexicon, Niagara-on-the-Lake, ON, Canada.

- Eigsti, I. M., **Davis, C. P.**, & Yee, E. (2022, May). Beyond the social domain: Autism-spectrum traits and the embodiment of manipulable object concepts. In *Translating Embodied Cognition to the Classroom*, Symposium presented at the 2022 Association for Psychological Sciences Annual Convention, Chicago, IL.
- Lautz, N., **Davis, C. P.**, Joergensen, G. H., Boddy, P., & Yee, E. (2022, March). An impaired sense of smell disrupts processing of smell-related concepts. Poster presented at the 29th Annual Meeting of the Cognitive Neuroscience Society.
- Davis, C. P.**, Xia, Q., & Yee, E. (2021, July). Exploring whether physical distance engenders differences in concept meaning. Presented at the 43rd Annual Meeting of the Cognitive Science Society. Remote conference.
- Davis, C. P.**, Lautz, N., & Yee, E. (2021, March). A graded role for the visual system in perceptual simulation during language processing? Presented at the 28th Annual Meeting of the Cognitive Neuroscience Society. Remote conference.
- Davis, C. P.** & Lupyan, G. (2020, July). The iconicity of random words. Presented at the 42nd Annual Meeting of the Cognitive Science Society. Remote conference.
- Davis, C. P.**, Morrow, H. M., De Luca, M., & Lupyan, G. (2020, April). The generality and origins of form-to-meaning iconicity. Accepted at the 13th International Conference on the Evolution of Language, Brussels, Belgium. [Conference cancelled due to COVID-19 outbreak.]
- Heffner, C. C., **Davis, C. P.**, & Myers, E. B. (2019, August). Behavioral and neural correlates of phonetic plasticity. 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. 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.
- 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.**, 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.
- 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.

Press Coverage

[How Names And Words Shape The Way We Perceive People And Things](#). Discover Magazine.

[Seeing Is Conceiving](#). UCONN Today.

[Research Teams Reach Different Results From Same Brain-Scan Data](#). The Scientist.

[Expanding Minds: Brain Imaging at UConn](#). UCONN Today.

Teaching Experience

Instructor of Record

<u>University of North Carolina – Chapel Hill</u>	
Psychology of Language Use and Mental States	2022
<u>University of Connecticut</u>	
Psychology of Language	2021

Lab Instructor

<u>University of Connecticut</u>	
Research in Psychology	2019–2021
Introductory Psychology	2015–17
<u>Brock University</u>	
Statistics and Research Design in the Behavioural Sciences	2010–12
Introduction to Psychology	2012–13

Guest Lecturer

<u>University of Connecticut</u>	
Foundations of Cognitive Science (Neuroscience; Connectionist Modelling)	2021
Psychology of Language (Semantic Memory)	2015–16
<u>Eastern Connecticut State University</u>	
Physiological Psychology (Semantic Memory)	2018

Teaching Assistant

<u>University of Connecticut</u>	
Foundations of Cognitive Science	2021
Cognitive Psychology	2020
Graduate Statistics: Research Foundations	2019–2020
Psychology of Language	2015–16
<u>Brock University</u>	
Psychology Students' Transition to Work	2014–15

Applied Experience

CT Institute for the Brain and Cognitive Sciences/Brain Imaging Research Center	2017–19
Research Assistant in Neuroimaging	

Cactus Communications Academic Editor: Second-Language English Editing; Publication Support	2013–19
Introduction to Psychology: Gateways to Mind and Behavior (Mitterer and Coon, 2014) Copyeditor	2013–14
Ontario Brain Injury Association Research and Data Analysis Specialist (summer co-op position)	2011

Awards and Distinctions

UNC Chapel Hill Teaching Commendation (PSYC 58, Fall 2022)	2022
Top Cited Article: <i>WIREs Cognitive Science</i>	2021
University of Connecticut Doctoral Dissertation Fellowship	2020
NSF-IGERT Innovation Grant: <i>Learning a phonologically engineered embodied language system</i>	2019
CT Institute for the Brain and Cognitive Sciences IBRAiN Fellowship in Neuroimaging	2017–19
NSF-IGERT Innovation Grant: <i>The role of language in two systems for category learning</i>	2018
CT Institute for the Brain and Cognitive Sciences Summer Graduate Fellowship	2016–17
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

Service and Activity

Ad-hoc Reviewing

Behavior Research Methods
Brain Structure & Function
Cognition
Cognitive Science
Collective Intelligence
Journal of Cultural Cognitive Science
Journal of Experimental Psychology: General
Journal of Experimental Psychology: Human Perception and Performance
Journal of Experimental Psychology: Learning, Memory, and Cognition
Language & Cognition
Language, Cognition and Neuroscience
Neuroscience and Biobehavioral Reviews
PLOS ONE
Psychological Science
Psychonomic Bulletin & Review

Professional Affiliations

Cognitive Science Society
Cognitive Neuroscience Society
Psychonomic Society

Students Mentored

Qi Xia (BSc, Cognitive Science)
The effects of physical distance on semantic similarity of abstract and concrete concepts
Brandon Strom (BSc, Cognitive Science)

The role of context in learning abstract and concrete concepts.

Roisin Healy (BSc, Psychological Science)

The role of autism-spectrum traits in the embodiment of manipulable object concepts.

Caitlin Dowling (BSc, Psychological Science)

Auditory word comprehension while performing a visual task

Committee Activity

Cognitive Science Society Meta-Reviewer	2022–Present
Duke Psychology & Neuroscience Anti-Racism Committee Peer Mentor	2022–Present
Cognitive Science Society Member Abstract Review Committee	2021
UConn Psychological Science Computer Committee Student Representative	2016–20
UConn Graduate Student Advisory Committee: Representative	2016–19
UConn Brain Imaging Research Center High-School Visit Host	2018, 2019
Eastern Connecticut State University Psychology Club Graduate Panelist	2018
Department of Psychological Science Graduate Colloquium Night Organizer	2018, 2019
CT Institute for the Brain and Cognitive Science Robust Statistics Workshop Organizer	2016
Expressive Communication and Origins of Meaning Reading Group Coordinator	2016
University of Connecticut IGERT Prospective Student Visit Committee	2016
University of Connecticut IGERT TalkShop Series Moderator	2015–16

Technical Skills

R	Experiment Builder software
Linguistic and behavioral corpora/databases	Presentation experiment design software
Twitter API data analysis	PsychoPy experiment design software
CHILDES corpus analysis	E-Prime experiment design software
Naturalistic data analysis	Python
fMRI data analysis in AFNI, FSL, Freesurfer	Qualtrics survey software
Human Connectome Project MRI (structural and functional) data processing	Natural language processing
Shell scripting	Vector-based semantic analysis
EEG acquisition	Prolific online recruitment software
EEG/ERP data analysis in EEGLab (Matlab)	Gorilla online experiment software
	SPSS