

**Megan A Boudewyn, Ph.D.**  
**Curriculum Vitae**

**CONTACT INFORMATION**

Office: Imaging Research Center  
UC Davis Medical Center  
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Sacramento, CA 95817

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**EDUCATION**

2012 Ph.D.  
Psychology  
University of California, Davis

2009 M.A.  
Psychology  
University of California, Davis

2006 B.A.  
Psychology; Spanish; Linguistics minor  
University of California, Davis

**PROFESSIONAL APPOINTMENTS**

2018-present Assistant Project Scientist  
Department of Psychiatry and Behavioral Sciences  
University of California Davis Medical Center

2012-2018 Post-doctoral Scholar  
Center for Neuroscience; Department of Psychology; Center for Mind and Brain  
University of California, Davis

**PUBLICATIONS****Refereed Journal Articles**

In press Chase, H., Boudewyn, M.A., Carter, C.C.S. & Phillips, M. Transcranial direct current stimulation: a roadmap for research, from mechanism of action to clinical implementation. *Molecular Psychiatry*.

2019 Boudewyn, M.A., Blalock, A., Long, D.L. & Swaab, T.Y. Adaptation to animacy violations during listening comprehension. *Cognitive, Affective, and Behavioral Neuroscience*, 19(5). 1247- 1258.

- 2019 Smucny, J., Barch, D.M., Gold, J.M., Strauss, M.E., MacDonald, A.W., Boudewyn, M.A., Ragland, J.D., Silverstein, S.M. & Carter, C.S. Cross-diagnostic analysis of cognitive control in mental illness: insights from the CNTRACS consortium. *Schizophrenia Research*, 208. 377- 383.
- 2019 Boudewyn, M.A., Roberts, B.M., Mizrak, E., Ranganath, C.R. and Carter, C.S.. Prefrontal transcranial direct current stimulation (tDCS) enhances behavioral and EEG markers of proactive control. *Cognitive Neuroscience*. 1- 9.
- 2018 Boudewyn, M.A. and Carter, C.S. Evolving concepts in brain oscillations and cognitive control in schizophrenia. *Biological Psychiatry*, 84(9). 632- 633.
- 2018 Boudewyn, M.A. and Carter, C.S. I must have missed that: alpha-band oscillations track attention to spoken language. *Neuropsychologia*. 117. 148- 155.
- 2018 Boudewyn, M.A., Luck, S., Farrens, J. & Kappenman, E. How many trials does it take to get a significant ERP effect? It depends. *Psychophysiology*. 55(6), e13049.
- 2018 Tully, L.M. & Boudewyn, M.A. Creating a novel experimental paradigm: a practical guide. *SAGE Research Methods Cases: Psychology*.
- 2017 Boudewyn, M.A. & Carter, C.S. Electrophysiological correlates of adaptive control and attentional engagement in patients with first episode schizophrenia and healthy young adults. *Psychophysiology*, 00. 1- 17.
- 2017 Boudewyn, M.A., Carter, C.S., Long, D.L., Traxler, M.J., Lesh, T.A., Mangun, G.R. & Swaab, T.Y. Language context processing deficits in schizophrenia: the role of attentional engagement. *Neuropsychologia*, 96. 262- 273.
- 2017 Boudewyn, M.A. Understanding working memory and attentional control impairments in schizophrenia. *Biological Psychiatry: Cognitive Neuroscience and Neuroimaging*, 2. 212- 213.
- 2015 Boudewyn, M.A. Individual differences in language processing: Electrophysiological Approaches. *Language and Linguistics Compass*, 9(10). 406- 419.
- 2015 Boudewyn, M.A., Long, D.L., Traxler, M.J., Lesh, T.A., Dave, S., Mangun, G.R., Carter, C.S. & Swaab, T.Y. Sensitivity to referential ambiguity in discourse: the role of attention, working memory and verbal ability. *Journal of Cognitive Neuroscience*, 27(12). 1- 15.
- 2015 Ragland, J.D., Ranganath, C., Phillips, J., Boudewyn, M.A., Kring, A.M., Lesh, T.A., Long, D.L., Luck, S.J., Niendam, T.A., Solomon, M., Swaab, T.Y. & Carter, C.S. Cognitive control of episodic memory in schizophrenia: differential role of dorsolateral and ventrolateral prefrontal cortex. *Frontiers in Human Neuroscience*, 9. 604.
- 2015 Boudewyn, M.A., Long, D.L. & Swaab, T.Y. Graded expectations: predictive processing and the adjustment of expectations during spoken language comprehension. *Cognitive, Affective, and Behavioral Neuroscience*, 15. 607- 624.

- 2014 Boudewyn, M.A., Zirnstein, M., Swaab, T.Y., & Traxler, M.J. Priming prepositional phrase attachment: evidence from eye-tracking and ERPs. *The Quarterly Journal of Experimental Psychology*, 67(3). 424- 454.
- 2014 Tooley, K.M., Swaab, T.Y., Boudewyn, M.A., Zirnstein, M. & Traxler, M.J. Evidence for priming across intervening sentences during on-line sentence comprehension. *Language, Cognition and Neuroscience*, 29(3). 289- 311.
- 2013 Boudewyn, M.A., Long, D.L. & Swaab, T.Y. Effects of working memory span on processing lexical associations and congruence in spoken discourse. *Frontiers in Psychology*, 4(60). 1-16.
- 2013 Swaab, T.Y.\*, Boudewyn, M.A.\*, Long, D. L., Luck, S., Kring, A., Ragland, D., Ranganath, C., Lesh, T., Niendam, T., Solomon, M., Mangun, G.R. & Carter, C.S. Spared and impaired spoken discourse processing in schizophrenia: effects of local and global language context. *Journal of Neuroscience*, 33(39). 15578-15587. \*denotes equal contributions to the manuscript
- 2012 Boudewyn, M.A., Long, D.L. & Swaab, T.Y. Cognitive control influences the use of meaning relations during spoken language comprehension. *Neuropsychologia*, 50(11). 2659- 2668.
- 2012 Traxler, M.J., Boudewyn, M.A., & Loudermilk, J. What is special about human language? The contents of the “narrow language faculty” revisited. *Language and Linguistics Compass*, 6(10). 611- 621.
- 2012 Boudewyn, M.A., Carter, C.S. & Swaab, T.S. Cognitive control and discourse comprehension in schizophrenia. *Schizophrenia Research and Treatment*, 2012. 1- 7.
- 2012 Boudewyn, M.A., Gordon, P.C., Long, D., Polse, L., & Swaab, T.Y. Does discourse congruence influence spoken language comprehension before lexical association? Evidence from event-related potentials. *Language and Cognitive Processes*, 27(5). 698-733.
- 2007 Camblin, C.C., Ledoux, K., Boudewyn, M., Gordon, P.C., & Swaab, T.Y. When and how do readers and listeners establish coreference with repeated names? *Brain Research*, 1146. 172- 184.

### Book Chapters

- 2012 Swaab, T. Y., Ledoux, K., Camblin, C. C., & Boudewyn, M. A. Oxford Handbook of Event-Related Potential Components. Luck, S.J., Kappenman, E.S., Editors. New York: Oxford University Press. Language-related ERP components.

### EXTRAMURAL FUNDING

- 2019 - 2024 NIMH R01 MH119546  
Effects of DLPFC tDCS on Cognition, Oscillations and GABA Levels in Schizophrenia

9/12/19 through 7/31/2024  
Role: Co-Investigator

2019 - 2024 NIMH R01 MH084826  
Cognitive Neurocomputational Task Reliability & Clinical Applications Consortium (CNTRaCS)  
9/1/19 through 6/30/2024  
Role: Co-Investigator

2018 - 2021 Brain & Behavior Research Foundation NARSAD Young Investigator Award  
tDCS-Induced Changes in EEG and Behavioral Markers of Cognitive Control during Language Comprehension  
1/19/19 through 1/18/2021  
Role: Principal Investigator

2012 - 2015 NIMH R21 MH099327  
Cognitive Control and Language Impairments in Schizophrenia  
12/10/12 through 12/30/2015  
Role: Post-doctoral scholar

#### **TRAINING GRANTS AND FELLOWSHIPS**

2010 Award to complete Training in Neuroimaging Methods  
University of California, Davis  
University of Cambridge, England

2009 Graduate Research Fellowship in Psychology  
University of California, Davis

2008 Award to complete NIH-funded Training Course in fMRI  
University of Michigan, Ann Arbor

#### **HONORS AND AWARDS**

2017 Travel Award to attend meeting of the *Cognitive Neuroscience Society*, Post-doctoral Association, University of California, Davis

2013 Open Access Publication Award to fund publication of manuscript in *Frontiers in Psychology* (Boudewyn et al., 2013), University of California, Davis

2010 Travel Award to attend meeting of the *Society for the Neurobiology of Language*, Graduate Student Association, University of California, Davis

#### **INVITED TALKS**

2017 Boudewyn, M.A. Tracking attention to spoken language using EEG alpha oscillations. Talk presented at the UC Davis Imaging Research Center Data Carnival, Sacramento, October 13.

- 2014 Boudewyn, M.A. Individual differences in cognitive control and context processing during comprehension. Talk presented at Haskins Laboratories Staff Talk Speaker Series, Haskins Laboratories, Connecticut April 3.
- 2011 Carter, C.S., Luck, S.J., Swaab, T.Y., Ranganath, C., Ragland, D., Kring, A., Rafael, S., Solomon, M., Niendam, T., Lesh, T., Kappenman, E. & Boudewyn, M.A. The neurofunctional substrates of impaired higher cognition in schizophrenia. Talk presented at the International Congress on Schizophrenia Research meeting, Colorado Springs April 2-6. *Schizophrenia Bulletin*, 37(1). 133-134.
- 2011 Traxler, M.J., Boudewyn, M.A. & Loudermilk, J. What's special about human language? The contents of the "narrow language faculty" revisited. Talk presented at the Linguistics Colloquium series, UC Davis, March 30.
- 2010 Boudewyn, M.A., Swaab, T.Y., Kring, A., Luck, S., Mangun, G.R., Ragland, D., Ranganath, C. & Carter, C.S. ERP effects of discourse congruence on lexical association during speech comprehension in healthy young adults and in schizophrenia. Talk presented at the Behavioral Neuroscience OMNI series, UC Davis, March 30.

#### REFEREED CONFERENCE PRESENTATIONS

- 2019 Bousquet, K., Boudewyn, M.A., Long, D., Henderson, J., Ferreira, F. and Swaab, T. Younger and older adults adapt differently to animacy violations in fictional narratives: electrophysiological evidence. *Cognitive Neuroscience Society Meeting*, San Francisco. March 23-26.
- 2018 Bousquet, K., Boudewyn, M.A., Long, D., Henderson, J., Ferreira, F. and Swaab, T. Effects of aging on discourse processing. *Alzheimer's Disease Symposium*, Davis. November 8.
- 2018 Boudewyn, M.A. & Carter, C.S. Tracking attention to spoken language using EEG alpha oscillations. *Cognitive Neuroscience Society Meeting*, Boston. March 24-27.
- 2017 Scangos, K.W., Boudewyn, M.A., Roberts, B., Ragland, J.D., Ranganath, C. & Carter, C.S. Effects of tDCS on cognitive control and cortical network oscillations in schizophrenia. *American College of Neuropsychopharmacology*, Palm Springs. December 3-7.
- 2017 Boudewyn, M.A. & Carter, C.S. Attentional control during language comprehension: connecting brain to behavior. *Cognitive Neuroscience Society Meeting*, San Francisco. March 25-28.
- 2015 Boudewyn, M.A. Differential ERP and EEG effects of contextual cue type and relative clause attachment during sentence reading. *Society for the Neurobiology of Language Conference*, Chicago. October 15- 17.
- 2015 Fedechko, T.L., Tully, L.M., Boudewyn, M.A., Denton, J.C., Burch, K.E. & Niendam, T.A. Analysis of language production in early psychosis: associations with

- symptom severity and functioning. *Society for Research in Psychopathology* meeting, New Orleans. October 15- 18.
- 2015 Boudewyn, M.A., Long, D.L., Traxler, M.J., Lesh, T., Mangun, G.R., Carter, C.S. & Swaab, T.Y. Referential context processing deficits in schizophrenia: evidence from electrophysiology. *Cognitive Neuroscience Society Meeting*, San Francisco. March 28-31.
- 2014 Boudewyn, M.A., Dave, S., Traxler, M.J., Long, D.L., Mangun, G.R., Carter, C.S. & Swaab, T.Y. The influence of referential context on the processing of ambiguous syntactic structures in schizophrenia: evidence from event-related potentials. *Cognitive Neuroscience Society Meeting*, Boston. April 5- 8.
- 2014 Dave, S., Boudewyn, M.A. & Swaab, T.Y. Individual differences in the effects of referential context on syntactic ambiguity resolution. *Cognitive Neuroscience Society Meeting*, Boston. April 5- 8.
- 2013 Boudewyn, M.A., Long, D.L., & Swaab, T.Y. Pre-activation of semantic features in spoken discourse. *Society for the Neurobiology of Language Conference*, San Diego, California. November 6-8.
- 2013 Dave, S., Boudewyn, M.A., Traxler, M. & Swaab, T.Y. Effects of reference and syntactic ambiguity in spoken discourse. *Society for the Neurobiology of Language Conference*, San Diego, California. November 6-8.
- 2013 Boudewyn, M.A., Long, D.L., & Swaab, T.Y. Effects of working memory span on processing of lexical associations and congruence in spoken discourse. *Cognitive Neuroscience Society Meeting*, San Francisco. April 13- 16.
- 2013 Blalock, A.R., Boudewyn, M.A., & Swaab, T.Y. Discourse context attenuates animacy violations, but not of gender-specific pronouns. *Cognitive Neuroscience Society Meeting*, San Francisco. April 13- 16.
- 2013 Traxler, M.J., Boudewyn, M.A., & Swaab, T.Y. Syntactic priming in comprehension: priming 'early' closure. *CUNY Conference on Human Sentence Processing*, Columbia, South Carolina. March 21 -23.
- 2012 Boudewyn, M.A., Swaab, T.Y. & Carter, C.S. Context, control and comprehension in schizophrenia: getting the global message depends on local semantic priming. *Cognitive Neuroscience Society Meeting*, Chicago, Illinois March 31-April 3.
- 2012 Traxler, M.J., Boudewyn, M.A., Zirnstein, M. & Swaab, T.Y. Syntactic priming in noun vs. verb attachment ambiguities: evidence from ERPs and eye-tracking. *CUNY Conference on Human Sentence Processing*, New York April 14-16.
- 2011 Boudewyn, M.A., Tooley, K.M., Zirnstein, M., Swaab, T.Y. & Traxler, M.J. Priming at a distance: evidence for the dual-mechanism account of syntactic priming. *Society for the Neurobiology of Language Conference*, Annapolis, Maryland November 10-11.

- 2011 Tooley, K., Traxler, M., Swaab, T., Zirnstein, M. & Boudewyn, M.A. Implicit learning and syntactic priming in comprehension: evidence from ERPs and eye-tracking. *Conference on Architectures and Mechanisms for Language Processing*, Paris, France September 1-3.
- 2011 Boudewyn, M.A., Long, D.L. & Swaab, T.Y. Individual differences in lexical association effects during auditory sentence processing: an ERP study. *Cognitive Neuroscience Society Meeting*, San Francisco April 2-5.
- 2011 Boudewyn, M.A., Long, D.L. & Swaab, T.Y. Individual differences in lexical association effects during auditory sentence processing: an ERP study. *CUNY Conference on Human Sentence Processing*, Stanford University.
- 2010 Swaab, T.Y., Boudewyn, M.A., Kring, A.M., Luck, S., Mangun, G.R., Ragland, J.D., Ranganath, C., Carter, C.S. Electrophysiological evidence for impaired discourse processing but spared associative priming in schizophrenia. *Society for the Neurobiology of Language Conference*, San Diego.
- 2010 Boudewyn, M.A., Long, D.L. & Swaab, T.Y. Individual differences in effects of lexical association in auditory sentence contexts: an ERP study. *Society for the Neurobiology of Language Conference*, San Diego.
- 2010 Boudewyn, M.A., Swaab, T.Y., Kring, A., Luck, S., Mangun, G.R., Ragland, D., Ranganath, C. & Carter, C.S. Online processing of discourse-level congruence and lexical associative priming in schizophrenia: an ERP Study. *Cognitive Neuroscience Society Meeting*, Montreal.
- 2009 Boudewyn, M.A., Camblin, C.C., Venezia, J, Polse, L., Gordon, P.G., & Swaab, T.Y. The modulation of semantic priming by discourse and sentence contexts during speech comprehension. *Cognitive Neuroscience Society Meeting*, San Francisco, 2009 and at the *CUNY Conference on Human Sentence Processing*, University of California, Davis.
- 2008 Boudewyn, M.A., Camblin, C.C., Polse, L., Gordon, P.G., & Swaab, T.Y. Discourse and sentence contexts modulate semantic priming during spoken language comprehension: An ERP study. *Cognitive Neuroscience Society Meeting*, San Francisco April 12-15.
- 2006 Swaab, T.Y., Ledoux, K., Boudewyn, M.A., Camblin, C.C., & Gordon, P.G. When and how do readers and listeners establish coreference with repeated names? Evidence from ERPs. *Cognitive Neuroscience Society Meeting*, San Francisco April 8-11.

#### **OTHER INVITED TALKS AND PRESENTATIONS**

- 2019 Lecturer, Expert Consultant  
ERP Boot Camp, University of California, Davis
- 2017 Lecturer, Expert Consultant  
ERP Boot Camp, University of California, Davis

- 2016      Lecturer, Expert Consultant  
ERP Boot Camp, University of California, Davis
- 2015      Lecturer, Expert Consultant  
ERP Boot Camp, University of California, Davis
- 2014      Lecturer, Expert Consultant  
ERP Boot Camp, University of California, Davis
- 2013      Workshop on the Application of Independent Component Analysis to ERP Data  
University of California, Davis

### **TEACHING EXPERIENCE**

- 2019      Psychiatry 403B: Small Group  
Guest Lecture and Lab Demonstration on Transcranial Direct Current Stimulation (tDCS) and Electrophysiology  
University of California, Davis
- 2019      Language and Cognition (Winter Term)  
Guest Lecture and Lab Demonstration on Electrophysiology  
University of California, Davis
- 2012      Language and Cognition (Summer Term 2)  
Instructor of Record  
University of California, Davis
- 2012      Language and Cognition (Summer Term 1)  
Instructor of Record  
University of California, Davis
- 2012      Cognitive Neuroscience (Winter Term)  
Electrophysiology Lab Instructor  
University of California, Davis
- 2011      Language and Cognition (Summer Term 1)  
Instructor of Record  
University of California, Davis
- 2011      Introduction to Psychology (Spring Term)  
Supervised Instructor of Record  
University of California, Davis
- 2011      Cognitive Neuroscience (Winter Term)  
Electrophysiology Lab Instructor  
University of California, Davis
- 2009      Language and Cognition (Winter Term)  
Teaching Assistant  
University of California, Davis



- 2008 Introduction to Cognitive Psychology (Fall Term)  
Teaching Assistant  
University of California, Davis
- 2008 Introduction to Cognitive Psychology (Summer Term 1)  
Teaching Assistant  
University of California, Davis
- 2008 Cognitive Neuroscience (Spring Term)  
Teaching Assistant  
University of California, Davis
- 2008 Language and Cognition (Winter Term)  
Teaching Assistant  
University of California, Davis
- 2007 Research Methods in Psychology (Fall Session)  
Teaching Assistant  
University of California, Davis

## RESEARCH SUPERVISION

**Undergraduate Project Assistants (for research course credit):** Jonathan Venezia (2007-2008; completed honors thesis); Rebecca Stein (2008-2010); Caety Chong (2009-2010); Rita Tawdros (2009-2010); Adam Blalock (2010-2011); Laura Chao (2011-2012); Avery Dawson (2011-2012); Alexander Newhouse (2011-2012); Cory Bullis (2011-2012); Richele Allen (2011-2013; completed honors thesis); Richard Lam (2013- 2014); Neli Mihov (2013- 2014; completed honors thesis); Catherine Kutsuris (2014- 2015); Shaila Pathak (2015- 2016); Christine Han (2017- 2018); Anna Mah (2015- 2018); Neha Madugala (2019- present).

**Staff Research Assistants:** Davis Ewbank (2012- 2014); Huan Wang (2016- 2018); Vanessa Zarubin (2018- present); Ling Peng (2019- present); Grace Lara (2019- present); Alesia Richardson (2020- present).

## PROFESSIONAL SERVICE

### Editorial Activities

- 2019-present Section Editor  
*Language and Linguistics Compass*  
Section: Cognitive Science of Language
- 2016-2019 Editorial Board  
*Language and Linguistics Compass*  
Section: Cognitive Science of Language
- 2015 Guest Associate Editor  
*Frontiers in Human Neuroscience*  
Special Topic: Neural Mechanisms of Impaired Cognitive and Emotional Functioning in Schizophrenia

## **Ad Hoc Reviewing**

*Aging, Neuropsychology, and Cognition, Applied Psycholinguistics, Biological Psychiatry, Biological Psychiatry: Cognitive Neuroscience and Neuroimaging, Brain and Language, Brain Sciences, Cognitive Neuropsychiatry, Collabra: Psychology, Cognition, Cognitive, Affective, and Behavioral Neuroscience, Discourse Processes, Frontiers in Language Sciences, Frontiers in Neuroscience, Human Brain Mapping, International Journal of Psychophysiology, Journal of Abnormal Psychology, Journal of Cognitive Neuroscience, Journal of Experimental Psychology: General, Journal of the International Neuropsychological Society, Journal of Memory and Language, Language and Linguistics Compass, Language, Cognition and Neuroscience, NeuroImage, Neuropsychologia, Neuroscience Letters, PLOS One, Psychiatry Research, Psychophysiology, Schizophrenia Bulletin, Schizophrenia Research, Scientific Reports, World Journal of Biological Psychiatry*

Recognized as 2019 Top 10 Reviewer for *Biological Psychiatry: Cognitive Neuroscience and Neuroimaging*

## **Grant/Conference Reviewing**

National Science Foundation Graduate Research Fellowship Program  
Panelist, 2017

CUNY Human Sentence Processing Conference  
Invited Reviewer for 2019, 2020 meetings

## **Department/University Service**

Imaging Research Center Graduate Advising Group  
Panel Member (2013- present)  
University of California, Davis

Brown Bag Series Coordinator (2010-2011)  
Psychology Department, University of California, Davis

Program Publishing Team and Event Staff Member (2009)  
CUNY Conference on Human Sentence Processing

Psychology Graduate Student Association  
Founding Member (2008-2010)  
University of California, Davis

Interdisciplinary Graduate Symposium Organizing Committee  
Member (2008-2009)  
University of California, Davis

Language and Cognition Symposia Organizing Committee  
Member (2008)  
University of California, Davis

Graduate Student Association  
Psychology Department Representative (2007-2010)

University of California, Davis

**PROFESSIONAL AFFILIATIONS**

Cognitive Neuroscience Society  
Society for the Neurobiology of Language