Clara A. Sava-Segal

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Education & Appointments

2020-Present **Dartmouth College**
PhD, Cognitive Neuroscience
MS, Cognitive Neuroscience
Department of Psychological and Brain Sciences
Advisor: Emily S. Finn, PhD
Thesis Committee: Jeremy Manning, PhD, Caroline Robertson, PhD, Janice Chen, PhD
Thesis: Cognitive and neural mechanisms underlying the subjective interpretation of complex experiences

2018-2020 **Stanford University**
Lab Manager/Research Associate
Department of Neurology and Neurological Sciences
Advisor: Josef Parvizi, MD/PhD

2014-2018 **The University of Chicago**
Bachelor's in Psychology & Comparative Human Development | Minor: Biology
General Honors & Honors in Psychology
Thesis Advisor: Daniel Casasanto, PhD
Thesis: Unconscious Processing of Approximate Number in the Human Visual System

Grants & Fellowships

**Including only direct costs; **Including both direct and indirect costs*

2024-2026 **F31 Ruth L. Kirschstein Predoctoral Individual NRSA (Role: PI) | $98,512***
"Neural mechanisms of interpretation shifting and memory formation in ambiguous social contexts"
National Institutes of Mental Health (NIMH)

2025 **Arts Integration Grant | $10,000**
"Living Interpretations: A Digital Exploration of Ambiguity in Art"
Hopkins Center for the Arts, Dartmouth College

2021-2024 **Graduate Research Fellowship (NSF GRFP) | $138,000****
National Science Foundation

2017-2018 **Milgrom Education Impact Fellowship**
University of Chicago

2016-2017 **Jeff Metcalf Undergraduate Research Fellow**
University of Chicago

2014-2018 **Presidential Scholar**
University of Chicago

Awards & Honors

2024 **Marie A. Center 1982 Award for Excellence in Teaching**
Dartmouth College, Department of Psychological and Brain Sciences

2023, 2024 **Outstanding Graduate Student Teacher | Introduction to Neuroscience**
Dartmouth Center for Advancement of Learning

2024 **Travel Grant | $350**
Psychological and Brain Sciences Department, Dartmouth College

2022 **Citation for Meritorious Performance | Research Presentation (Qualifying Exam)**
Psychological and Brain Sciences Department, Dartmouth College

2022	**Graduate Student Award Winner** Cognitive Neuroscience Society
2022, 2023, 2024	**Neukom Travel Grant | $1000** Neukom Institute for Computational Science, Dartmouth College
2018	**Psi Chi Research Award Winner**
2017	**Crerar Science Writing Prize - 3rd Place** Insight into the Evolutionary Purpose of Memory: Pairing Behavioral and Neurobiological Data
2014-2018	**Dean's List, University of Chicago**

Relevant Research Training

2020-Present	**Graduate Student | Functional Imaging & Naturalistic Neuroscience Lab** Psych. & Brain Sciences Dept. | Dartmouth College PI: Emily Finn, PhD
2018-2020	**Lab Manager/Research Assistant | Lab. of Behavioral & Cognitive Neuroscience** Neurology Dept. | Stanford University PI: Josef Parvizi, MD, PhD
2015-2018	**Undergraduate Research Assistant | Experience & Cognition Lab** Department of Psychology | University of Chicago PI: Daniel Casasanto, PhD
2017-2018	**Undergraduate Research Assistant | Awh Vogel Lab** Department of Psychology/ Institute of Mind and Biology | University of Chicago PIs: Edward Vogel, PhD & Edward Awh, PhD
2016-2018	**Undergraduate Research Assistant | Parkinsonian & Neurodegenerative Diseases Lab** Neurology Dept. | University of Chicago PI: Christopher Gomez, MD, PhD
Sept-Dec '16	**Research Intern | Perception & Action Group** Institut Neurosciences Cognition | Université Paris Descartes PI: Véronique Izard, PhD
July-Sept '15	**Summer Research Assistant | Social Perception & Evaluation Lab** Psychology Dept | NYU PI: Jay Van Bavel, PhD

Additional Research Training

Fall 2025	**Course- Why to Love and Hate Hormones - Dr. William North (Zoom)** | Osher Lifelong Institute
2025	**Workshop - Functional alignment of information encoded in neural activity** | Center for Cognitive Neuroscience, Dartmouth College, NH
2024	**Workshop - Neuroscience and Artificial Intelligence** | Center for Cognitive Neuroscience, Dartmouth College, NH
2023	**AFNI Bootcamp**
2022	**Summer School - Neurohackademy** | Seattle, WA
2021	**Summer School - Neuromatch Academy, Computational Neuroscience Course** | Virtual
2019	**Workshop - Conte Center for Active Sensing Retreat** | Columbia University, NYC

Peer-Reviewed Publications & Preprints

Google Scholar Page

** Denotes shared authorship; underline indicates trainee*

1. Lu, Chang, **Sava-Segal, C.**, Baek, E.C. (2025). Idiosyncratic Event Segmentation as a Neural Marker of Loneliness. Preprint on *OSF*; Under review.
2. **Sava-Segal, C.**, Grall, C., Finn, E.S. (2025). Narrative 'twist' shifts within-individual neural representations of dissociable story features. Preprint on *bioRxiv*; Under review.
3. Salehi, S., Schrouff, J., Dehaqani, M.R.A., **Sava-Segal, C.**, Raccah, O., Baek, S. (2024) Spatiotemporal dynamics of face subcategory information in the human temporal cortex. *Scientific Reports*.
4. Pinheiro-Chagas, P., **Sava-Segal, C.***, Akkol, S.*, Daitch, A., Parvizi, J. (2024). Spatiotemporal dynamics of successive activations across the human brain during a simple cognitive task. *Journal of Neuroscience*.
5. **Sava-Segal, C.**, Richards, C., Leung, M., Finn, E.S. (2023). Individual variability in neural event segmentation reflects stimulus content and interpretation. *Cerebral Cortex*.
6. Liu, N.*, Pinheiro-Chagas, P.*, **Sava-Segal, C.**, Kastner, S., Chen, Q., Parvizi, J. (2021). Overlapping Neuronal Population Responses in the Human Parietal Cortex during Visuospatial Attention and Arithmetic Processing. *Journal of Cognitive Neuroscience*.
7. Veit, M.J., Kucyi, A., Hu, W., Zhang, C., Zhao, B., Guo, Z., Yang, B., **Sava-Segal, C.**, Perry, C., Zhang, J., Zhang, K., Parvizi, J. (2021). Temporal order of signal propagation within and across intrinsic brain networks. *Proceedings of the National Academy of Sciences (PNAS)*.
8. Brookshire, G., Mangelsdorf, H., **Sava-Segal, C.**, Perry, C., Zhang, J., Zhang, K., Parvizi, J. (2021). Reis, K., Nusbaum, H., Goldin-Meadow, S., Casasanto, D. (2021). Expertise modulates neural stimulus-tracking in frontal but not occipital cortex. *eNeuro*.
9. Parvizi, J., Braga, R., Kucyi, A., Veit, M.J., Pinheiro-Chagas, P., Perry, C.M., **Sava-Segal, C.**, Zeineh, M.M., van Staalduinen, E.K., Henderson, J.M., Markert, M. (2021). Altered Sense of Self During Seizures in the Posteromedial Cortex. *Proceedings of the National Academy of Sciences (PNAS)*.
10. Akkol, S., Kucyi, A., Hu, W.H., Zhao, B., Zhang, C., **Sava-Segal, C.**, Liu, S., Razavi, B., Zhang, J., Zhang, K., Parvizi, J. (2021). Intracranial electroencephalography reveals selective task-evoked responses and resting state connectivity of periventricular heterotopias. *Journal of Neuroscience*.
11. Vesuna, S.*, Kauvar, I.*, Gore, F., Oskotsky, T., **Sava-Segal, C.**, Henderson, J.M., Nuyujukian, P., Parvizi, J., Deisseroth, K. (2020). Deep posteromedial cortical rhythm underlying dissociation. *Nature*, 586, 87-94.
12. Lucero, C., Brookshire, G., **Sava-Segal, C.**, Bottini, R., Goldin-Meadow, S., Vogel, E.K., Casasanto, D. (2020). Unconscious Number Discrimination in the Human Visual System. *Cerebral Cortex*, 30(11), 5821-5829.
13. Sun, Y., Liu, X., Li, B., **Sava-Segal, C.**, Wang, A., Zhang, M. (2020). Effects of Repetition Suppression on Sound Induced Flash Illusion with Aging. *Frontiers in Psychology*, 11, 216.
14. Wang, A., Sang, H., He, J., **Sava-Segal, C.**, Tang, X., Zhang, M. (2019). The Effects of Cognitive Expectation on Sound-induced Flash Illusion. *Perception*, 48(12), 1214–1234.
15. Wang, C.-Z., Hou, L., Wan, J.Y., Yao, H., Yuan, J., Zeng, J., Park, C.-W., Kim, S.H., Seo, D.-B., Shin, K.-S., Zhang, C.-F., Chen, L., Zhang, Q.-H., Liu, Z., **Sava-Segal, C.**, Yuan, C.S. (2018). Ginseng berry polysaccharides on inflammation-associated colon cancer: Inhibiting T cell differentiation, promoting apoptosis, and enhancing the effects of 5-fluorouracil. *Journal of Ginseng Research*, 44(2), 282-290.
16. Yao, H., Wan, J.Y., Zeng, J., Huang, W.-H., **Sava-Segal, C.**, Li, L., Niu, X., Wang, Q., Wang, C.-Z., Yuan, C.S. (2018). Effects of compound K, an enteric microbiome metabolite of ginseng, in the treatment of inflammation associated colon cancer. *Oncology Letters*, 15(6), 8339-8348.
17. Wang, C.-Z., Yao, H., Zhang, C.-F., Chen, L., Wan, J.Y., Huang, W.-H., Zeng, J., Zhang, Q.-H., Liu, Z., Yuan, J., Bi, Y., **Sava-Segal, C.**, Du, W., Xu, M., Yuan, C.S., (2018). American ginseng microbial metabolites attenuate DSS-induced colitis and abdominal pain. *International Immunopharmacology*, 64:246-251.

Conference Proceedings and Papers

** Denotes shared authorship; underline indicates trainee*

1. **Sava-Segal, C.**, Finn, E.S. (2024). Self- Versus Other-Generated Interpretations of Ambiguous Social Stimuli are Asymmetrically Remembered. In *Proceedings of the 8th Annual Conference on Cognitive Computational Neuroscience*.

2. Benson, T., **Sava-Segal, C.**, Finn, E.S. (2024). Valence, but Not Content, of Narrative Interpretations of Naturalistic Stimuli are Predicted by Personality Traits. In *Proceedings of the 8th Annual Conference on Cognitive Computational Neuroscience*.
3. Uruñuela, E., **Sava-Segal, C.**, Leung, M., Finn, E.S., Caballero-Gaudes, C. (2023) A Multi-Subject Deconvolution Algorithm for the Analysis of Naturalistic fMRI Data. *Proceedings of International Society for Magnetic Resonance in Medicine (ISMRM).*

Manuscripts in prep.

** Denotes shared authorship; underline indicates trainee*

1. **Sava-Segal, C.***, Zhang, C.*, Zhao, B., Kucyi, A., Pinheiro-Chagas, P., Tao, A.W., Yih, J., Zhang, K., Parvizi, J., Direct cortical recordings in the human brain during target detection. *Submitted.*
2. **Sava-Segal, C.**, Benson, T., Finn, E.S., Shifts in neural representations of ambiguous information predict reinterpretation and reduce self memory bias. *In prep.*
3. Uruñuela, E., **Sava-Segal, C.**, Leung, M., Finn, E.S., Caballero-Gaudes, C. A Multi-Subject Deconvolution Algorithm for the Analysis of Naturalistic fMRI Data. *In prep.*

Invited Talks

April 2026	New Directions in Social Learning and Memory, Social Affective Neuroscience Society (SANS) "Self-versus other-generated interpretations of ambiguous social info. are asymmetrically remembered"
March 2026	Richardson Lab, University of Edinburgh "Understanding in flux: how reinterpretation reshapes patterns of neural activity"
Feb., 2026	BrainWorks Seminars: Current Works in Human Neuroscience at the Wu Tsai Institute, Yale University "Cognitive and neural mechanisms underlying the subjective interpretation of complex experiences"
May, 2025	Lab Meeting - Scaffolding of Cognition Lab (PI – Cameron Ellis), Stanford University (virtual) "Cognitive and neural mechanisms underlying the subjective interpretation of complex experiences"
Feb., 2025	Lab Meeting - Social Connection Lab (PI – Elisa Baek), University of Southern California (virtual) "Individual differences in event segmentation of continuous experiences - methodological considerations"
April 2024	Lab Meeting, Section on Learning and Plasticity (PI – Chris Baker), NIH "Cognitive and neural mechanisms underlying the subjective interpretations of complex experiences"
Jan. 2024	Lab Meeting, IMPACT Lab (PI - Chujin Lin), UCSD (virtual) "Cognitive and neural mechanisms underlying the subjective appraisal of complex experiences"
Nov. 2022	Lab Meeting - Baldassano and Aly Labs at Columbia University, NY. "Individual variability in neural event segmentation reflects stimulus content and interpretation"
Mar. 2022	Lab Meeting – Whifield-Gabrieli Lab at Northeastern U., Boston, MA. (virtual) "Individual variability in neural event segmentation reflects stimulus content and interpretation"
Aug. 2021	Lab Meeting - University of Chicago Psychology Dept., Chicago, IL. (virtual) "Exploring Idiosyncrasies in the Appraisal of Naturalistic Events"

Conference Talks

1. **Sava-Segal, C.**, Benson, T., Finn, E.S. (April, 2026). Symposium Talk - New directions in social learning and memory, Social Affective Neuroscience Society. "Self- versus other-generated interpretations of ambiguous social information are asymmetrically remembered".
2. **Sava-Segal, C.**, Benson, T., Finn, E.S. (May, 2025). Blitz Talk - Trends in Psychology Summit, Harvard University (Cognition, Brain, and Behavior area). "Shifts in neural activity predict subjective reinterpretation of ambiguous stimuli".

3. **Sava-Segal, C.**, Benson, T., Igbalajobi, D., Finn, E.S. (March, 2025). Data Blitz presented at Cognitive Neuroscience Society, Boston, MA. "Within-individual neural patterns differ for memories of self- and other-generated interpretations of the same stimuli."
4. **Sava-Segal, C.**, Benson, T., Finn, E.S. (Oct. 2024). Nanosymposium on Neural Bases of Human Social Cognition and Connection, Society for Neuroscience (SfN). "Real-world social inputs trigger shifts in neural activity patterns and reinterpretations of ambiguous stimuli".
5. **Sava-Segal, C.** Grall, C., Bartolino, K., Equita, J., Benson, T., Finn, E.S. (July 2023). Oral Presentation at Organization of Human Brain Mapping, Montreal, CA. "Narrative 'twists' shift neural representations".

Department Talks

July 2024	Cognitive Brown Bag Talk Series at Dartmouth College, NH "Narrative 'twist' shifts neural representations".
Oct. 2023	Human Intracranial Electrophysiology Meeting "Shifting interpretations of ambiguous naturalistic images".
May 2023	Social Area Talk Series at Dartmouth College, NH "Shifting interpretations of ambiguous naturalistic images".
April 2023	Cognitive Brown Bag Talk Series at Dartmouth College, NH "Shifting interpretations of ambiguous naturalistic images".
August 2022	Text Analysis (Natural Language Processing) Meeting at Dartmouth College, Hanover, NH "(Re)appraisal of ambiguous stimuli".

Selected Academic Posters

**Denotes presenter; underline indicates trainee*

1. **Sava-Segal, C.***, Benson, T., Finn, E.S. (2025). Within-individual neural patterns differ for memories of self- and other-generated interpretations of the same stimuli. Presented at *Society for Neuroscience*, San Diego, CA.
2. **Sava-Segal, C.***, Benson, T., Igbalajobi, D., Finn, E.S. (2025). Within-individual neural patterns differ for memories of self- and other-generated interpretations of the same stimuli. Presented at *Cognitive Neuroscience Society*, Boston, MA.
3. **Sava-Segal, C.***, Finn, E.S. (2024). Self- Versus Other-Generated Interpretations of Ambiguous Social Stimuli are Asymmetrically Remembered. Presented at *Cognitive Computational Neuroscience Conference*, Boston, MA.
4. **Sava-Segal, C.***, Benson, T., Finn, E.S. (2024). Multivariate neural pattern changes reflect within-subject shifts in subjective interpretations. Presentation at *Organization for Human Brain Mapping*, Seoul, Korea.
5. **Sava-Segal, C.***, Benson, T., Finn, E.S. (2024). Multivariate neural pattern changes reflect within-subject shifts in subjective interpretations. Presentation at *Social Affective Neuroscience Society*, Toronto, CA.
6. Benson, T., **Sava-Segal, C.***, Finn, E.S. (2024). Positive or ruminative: How traits shape sentiment and appraisal of ambiguous stimuli. Presentation at *Society for Personality and Social Psychology*, San Diego, CA.
7. Uruñuela, E., **Sava-Segal, C.**, Leung, M., Finn, E.S., Caballero-Gaudes, C. (2023). A Multi-Subject Deconvolution Algorithm for the Analysis of Naturalistic fMRI Data. Presentation at *32nd Annual Meeting of the International Society of Magnetic Resonance in Medicine (2023), Toronto, Canada*.
8. **Sava-Segal, C.***, Grall, C., Bartolino, K., **Bloch, E.**, Equita, J., Benson, T., Finn, E.S. (2023). Narrative 'twists' shift neural representations. Presentation at *Organization of Human Brain Mapping*, Montreal, CA.
9. **Sava-Segal, C.***, Finn, E.S. (2023). Shifting interpretations of multistable, "naturalistic" stimuli. Presentation at *Cognitive Neuroscience Society*, San Francisco, CA.
10. **Sava-Segal, C.***, Finn, E.S. (2022). Individual variability in neural event segmentation reflects stimulus content and interpretation. Presentation at the *Organization of Human Brain Mapping*, Glasgow, UK.
11. **Sava-Segal, C.***, Zhang, C., Zhao, B., Kucyi, A., Tao, A., Ko, H.J., Yih, J., Parvizi, J. (2022). Direct cortical recordings in the human brain during race categorization of faces. Presentation at *Cognitive Neuroscience Society*, San Francisco, CA.

12. Pinheiro-Chagas, P., **Sava-Segal, C.**, Akkol, S., Braga, R., Daitch, A., Parvizi, J. (2022). Successive ignition of cortical sites across the human brain during arithmetic processing. Presentation at *Cognitive Neuroscience Society*, San Francisco, CA.
13. **Sava-Segal, C.***, Finn, E.S. (2021). Exploring the role of event boundaries in idiosyncratic memory formation. Presentation at the *Organization of Human Brain Mapping*, virtual.
14. Rauschecker, A., **Sava-Segal, C.***, Liu, S., Na, R., Raccah, O., Parvizi, J. (2020). Effects of stimulus properties and task on electrophysiological dynamics in the human visual word form area. Presentation at *Cognitive Neuroscience Society* (virtual), Boston, MA.
15. Pinheiro-Chagas, P.*, **Sava-Segal, C.**, Akkol, S., Daitch, A. L., Parvizi, J. (2019). Spatiotemporal dynamics of arithmetic processing in the human brain. Presentation at *Society for Neuroscience*, Chicago, IL.
16. Braga, R.B.*, **Sava-Segal, C. A.**, Poldrack, R. A., Parvizi, J. (2019). Fast temporal characterization of distributed association networks within the individual using intracranial recording and repeated sampling functional MRI. Presentation at *Society for Neuroscience*, Chicago, IL.
17. **Sava-Segal, C.***, Lucero, C., Casasanto D. (2018). Unconscious Processing of Approximate Number in the Human Visual System. Poster presented at *Ninetieth Annual Midwestern Psychological Association*, Chicago, IL.

Academic Service

2022-Present **Member** | Survey Committee (Dartmouth PBS)
2022-2024 **Co-organizer** | Cognitive Brown Bag Talk Series (Dartmouth PBS)

Ad-hoc Reviewing

Journals Imaging Neuroscience; Behavioral Neuroscience; Communications Psychology
Conferences Cognitive Computational Neuroscience (CCN); Society for Personality and Social Psychology (SPSP)

Academic Teaching Experience

**Denotes full course design and lecturing*

2025, Fall **Study Leader | Experience in the Eye of the Beholder: How Individual Brains Create Reality II***
Osher Lifelong Learning Institute, Dartmouth College

2025, Summer **Study Leader | Experience in the Eye of the Beholder: How Individual Brains Create Reality***
Osher Lifelong Learning Institute, Dartmouth College

2025, Winter **Study Leader | Diverse Minds: What We Know and Don't Know About Psychiatric Disorders and Dementias 1***
Osher Lifelong Learning Institute, Dartmouth College

2024, Spring **Study Leader | Brain and Behavior 2 – How do we process the world around us?***
Osher Lifelong Learning Institute, Dartmouth College

2023, Fall **Teaching Assistant | PSYC 6: Introduction to Neuroscience**
Guest Lecture: Molecular mechanisms of memory
Awarded: Outstanding Graduate Student Teacher

2023, Winter **Teaching Assistant | PSYC 6: Introduction to Neuroscience**
Guest Lecture: The resting brain, attention, and consciousness
Awarded: Outstanding Graduate Student Teacher

2023, Winter **Study Leader | Brain and Behavior – How are they linked?***
Osher Lifelong Learning Institute, Dartmouth College

2022, Fall **Study Leader | Brain and Behavior – How are they linked?***
Osher Lifelong Learning Institute, Dartmouth College

2022, Fall **Teaching Assistant | PSYC 6: Introduction to Neuroscience**
Guest Lecture: Memory systems
Guest Lecture: Molecular mechanisms of Learning and Memory

2022, Spring **Teaching Assistant | PSYC 11: Experimental Psychology**
Department of Psychological and Brain Sciences, Dartmouth College

2018 **Teaching Assistant | Core Biology: Neurobiology**
University of Chicago

Science Communication & Public Engagement

2024-ongoing **App Development and Management** | ArtLibs (Collaboration with the Hood Museum in Hanover, NH)
2020-Present **Mentor** | Project SHORT
2020-2023 **Pre-Grad Resource Development Subcommittee Member** | Project SHORT
2017-2019 **Content Creator** | **OCEANA**
Developed neuroscience educational materials and curriculum for K-12 audiences
Donders Institute for Brain, Cognition and Behavior
2016-2019 **App Developer** | **iOS Education App for learning Microbiology**
Successfully developed and sold
2015-2022 **K-12 Outreach** | **Various Programs**
Taught neuroscience and cognitive science via Skype a Scientist and Splash programs
Served as teaching aide in Chicago Public Schools classrooms.

Mentorship

Note: †Secured UGAR (Undergraduate Research Assistantship Grant; co-authored applications with mentees); ‡James O. Freedman Presidential Scholar. See Posters section for mentee co-authored presentations.

Full-time Research Staff

2022-2024 **Tory Benson** | **Research Assistant/Lab Manager**
Project: Valence, but not content, of narrative interpretations are predicted by personality traits

Undergraduate Thesis Students

2024-Present **Eli Bailit†** | **Cognitive Science**
Project: How social identity shapes reappraisal of ambiguous stimuli

2022-2025 **Sofia Yawand-Wossen†** | **Psychology**
Project: Conversational signatures: topic dynamics and individual variation within dialogue

2022-2024 **Evan Bloch†** | **Neuroscience**
Project: People with higher depressive tendencies are more idiosyncratic in their event boundaries

Undergraduate Research Assistants

2024-Present **David Igbalajobi†**
2021-2024 **Megan Leung†,‡**
Project: Individual differences in behavioral event segmentation
2022, 2024 **Georgia Nieh†**
2024 **Isaac Wells**
2023 **Robin Sandell**
2022 **Payton Weiner**

Technical and Language Skills

Neuroimaging: Extensive experience with fMRI, intracranial EEG, eyetracking, and behavioral data collection and analysis; Experience with intracranial electrical stimulation, scalp EEG; Real-time client-server experimental setups; FreeSurfer, AFNI, BrainIAK toolbox; Additional: TMS training

Programming: Python, MATLAB, R, jsPsych, JavaScript, HTML, PsychToolbox, PyTorch; LLM integration for research workflows; High-performance computing clusters

Clinical: Patient interaction and data collection experience at Dartmouth-Hitchcock Medical Center and Stanford University Medical Center

Languages: Bilingual Proficiency: English, Romanian; Professional Working Proficiency: Spanish, French; Working Proficiency: German