

Clara A. Sava-Segal

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Education

- 2020-Present** **Dartmouth College**
Ph.D. in Cognitive Neuroscience, Department of Psychological and Brain Sciences
Advisor: Emily S. Finn, Ph.D.
- 2014-2018** **The University of Chicago**
Bachelor's in Psychology & Comparative Human Development / Minor: Biology
General Honors & Honors in Psychology
Thesis Advisor: Daniel Casasanto, Ph.D.
Thesis: Unconscious Processing of Approximate Number in the Human Visual System

Grants, Fellowships & Funding

- 2024-2026** **F31 Ruth L. Kirschstein Predoctoral Individual NRSA (Role: PI)**
"Neural mechanisms of interpretation shifting and memory formation in ambiguous social contexts"
National Institutes of Mental Health (NIMH)
- 2025** **Arts Integration Grant**
"Living Interpretations: A Digital Exploration of Ambiguity in Art"
Hopkins Center for the Arts, Dartmouth College
- 2021-2024** **Graduate Research Fellowship (NSF GRFP)**
National Science Foundation
- 2016-2017** **Jeff Metcalf Scholar**
University of Chicago
- 2014-2018** **Presidential Scholar**
University of Chicago

Awards & Travel Funding

- 2024** **Marie A. Center 1982 Award for Excellence in Teaching**
Dartmouth College, Department of Psychological and Brain Sciences
- 2024** **Outstanding Graduate Student Teacher**
Dartmouth Center for Advancement of Learning
- 2024** **Travel Grant | \$350**
Psychological and Brain Sciences Department, Dartmouth College
- 2023** **Outstanding Graduate Student Teacher**
Dartmouth Center for Advancement of Learning
- 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**
- 2018** **Milgrom Education Impact Fellowship**
- 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**

1. **Sava-Segal, C.**, Grall, C., Finn, E.S. (2025) Narrative 'twist' shifts within-individual neural representations of dissociable story features. *bioRxiv*.

Peer-Reviewed Publications

* Denotes shared authorship; underline indicates trainee

1. Salehi, S., Schrouff, J., Dehaqani, M.R.A., **Sava-Segal, C.**, Raccach, O., Baek, S. (2024) Spatiotemporal dynamics of face subcategory information in the human temporal cortex. *Scientific Reports*.
2. 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*.
3. **Sava-Segal, C.**, Richards, C., Leung, M., Finn, E.S. (2023). Individual variability in neural event segmentation reflects stimulus content and interpretation. *Cerebral Cortex*.
4. 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*.
5. 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)*.
6. 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*.
7. 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. *Proceeding of the National Academy of Sciences (PNAS)*.
8. 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*.
9. 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.
10. 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.
11. 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.
12. 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.
13. 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.
14. 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.

15. 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.
16. Wan, J.Y., Huang, W.-H., Zheng, W., Park, C.W., Kim, S.H., Seo, D.B., Shin, K.S., Zeng, J., Yao, H., **Sava-Segal, C.**, Wang, C.-Z., Yuan, C.S. (2017). Multiple Effects of Ginseng Berry Polysaccharides: Plasma Cholesterol Level Reduction and Enteric Neoplasm Prevention. *American Journal of Chinese Medicine*. 45(06), 1293–1307.

Conference Proceedings

* 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. Presented at *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. Presented at *Proceedings of the 8th Annual Conference on Cognitive Computational Neuroscience*.

Invited and Conference Talks

1. **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*.
2. **Sava-Segal, C.*** (April. 2024). Invited Lab Meeting, Section on Learning and Plasticity (PI – Chris Baker) NIH. *Cognitive and neural mechanisms underlying the subjective interpretations of complex experiences*.
3. **Sava-Segal, C.*** (Jan. 2024). Invited Lab Meeting, IMPACT Lab (PI - Chujin Lin), UCSD. *Cognitive and neural mechanisms underlying the subjective appraisal of complex experiences*.
4. **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*.
5. **Sava-Segal, C.*** (November 2022). Invited Lab Meeting Baldassano and Aly Lab Meeting at Columbia University, NY. *Individual variability in neural event segmentation reflects stimulus content and interpretation*.
6. **Sava-Segal, C.*** (March 2022). Invited Lab Meeting – Whiffeld-Gabrieli Lab at Northeastern U., Boston, MA. *Individual variability in neural event segmentation reflects stimulus content and interpretation*.
7. **Sava-Segal, C.*** (August 2021). Invited Lab Meeting University of Chicago Psychology Dept., Chicago, IL. *Exploring Idiosyncrasies in the Appraisal of Naturalistic Events*.

Department Talks

1. **Sava-Segal, C.*** (July 2024). Cognitive Brown Bag Talk Series at Dartmouth College, NH. *Narrative ‘twist’ shifts neural representations*.
2. **Sava-Segal, C.*** (August 2022). Text Analysis (Natural Language Processing) Meeting at Dartmouth College, Hanover, NH. *(Re)appraisal of ambiguous stimuli*.
3. **Sava-Segal, C.*** (April 2023, May 2023). Cognitive Brown Bag Talk Series and Social Area Talk Series at Dartmouth College, NH. *Shifting interpretations of ambiguous naturalistic images*.

Academic Posters

*Denotes presenter; underline indicates trainee

1. **Sava-Segal, C.**, Finn, E.S. (2024). Self- Versus Other-Generated Interpretations of Ambiguous Social Stimuli are Asymmetrically Remembered. Presented at *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. Presented at *Proceedings of the 8th Annual Conference on Cognitive Computational Neuroscience*.
3. **Sava-Segal, C.***, Benson, T., Finn, E.S. (2024). Multivariate neural pattern changes reflect within-subject shifts in subjective interpretations. Presentation accepted at *Organization for Human Brain Mapping*, Seoul, Korea.
4. **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.
5. 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.
6. 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 *ISMRM Iberian Chapter 3rd Annual Meeting*.
7. **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.
8. **Sava-Segal, C.***, Finn, E.S. (2023). Shifting interpretations of multistable, “naturalistic” stimuli. Presentation at *Cognitive Neuroscience Society*, San Francisco, CA.
9. **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.
10. **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.
11. 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.
12. **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.
13. Brookshire, G.*, Mangelsdorf, H.H., **Sava-Segal, C.**, Reis, K., Nusbaum, H., Goldin-Meadow, S., Casasanto, D. (2021). Expertise modulates neural tracking of dance and sign language. Poster presented at *2021 meeting of the Cognitive Science Society*.
14. Rauschecker, A., **Sava-Segal, C.***, Liu, S., Na, R., Raccach, O., Parvizi, J. (2020). (2021). 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.

18. **Sava-Segal, C.***, Lucero, C., Casasanto D. (2018). Unconscious Processing of Approximate Number in the Human Visual System. Poster presented at *Chicago Area Undergraduate Research Symposium*, Chicago, IL.
19. **Sava-Segal, C.***, Lucero, C., Casasanto D. (2018). Using Steady-State Visually Evoked Potentials to Determine a Neural Basis for the Unconscious Processing of Approximate Number Sense. Poster presented at *UCISTEM Undergraduate Research Symposium*, Chicago, IL.

Relevant Research Training

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

Additional Research Training

2022	Neurohackademy Seattle, WA
2021	Neuromatch Academy, Computational Neuroscience Course Virtual
2019	Conte Center for Active Sensing Retreat Columbia University, NYC

Academic Teaching Experience

**Denotes full course design and lecturing*

2025, Winter	Study Leader Diverse Minds: What We Know and Don't Know About Psychiatric Disorders and Dementias 1* <i>Osher Lifelong Learning Institute, Dartmouth College</i>
2024, Spring	Study Leader Brain and Behavior 2 – How do we process the world around us?* <i>Osher Lifelong Learning Institute, Dartmouth College</i>
2023, Fall	Teaching Assistant PSYC 6: Introduction to Neuroscience Guest Lecture: Molecular mechanisms of memory <i>Awarded: Outstanding Graduate Student Teacher</i>

2023, Winter	Teaching Assistant PSYC 6: Introduction to Neuroscience Guest Lecture: The resting brain, attention, and consciousness <i>Awarded: Outstanding Graduate Student Teacher</i>
2023, Winter	Study Leader Brain and Behavior – How are they linked?* <i>Osher Lifelong Learning Institute, Dartmouth College</i>
2022, Fall	Study Leader Brain and Behavior – How are they linked?* <i>Osher Lifelong Learning Institute, Dartmouth College</i>
2022, Fall	Teaching Assistant PSYC 6: Introduction to Neuroscience Guest Lecture: Memory systems <i>Guest Lecture: Molecular mechanisms of Learning and Memory</i>
2022, Spring	Teaching Assistant PSYC 11: Experimental Psychology <i>Department of Psychological and Brain Sciences, Dartmouth College</i>
2018	Teaching Assistant Core Biology: Neurobiology <i>University of Chicago</i>

Academic Service

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

External Service & Community Teaching Experience

**hover for relevant links*

2020-Present	Mentor Project SHORT
2022	Judge New Hampshire Science and Engineering Fair
2021, 2022	Teacher Skype a Scientist (zoom)
2021	Guest Speaker Women in Science Club Stuyvesant High School, NYC (zoom)
2021	Guest Speaker Global Youth Economics Symposium Hunter High School, NYC (zoom)
2019-2020	Teacher Chicago and Stanford Splash <i>Course 1. How do Humans Learn; Course 2: Introduction to the Mind</i>
2019-2020	Mentor San Jose High School (iMentor Bay Area)
2017-2018	Milgrom Education Impact Fellow Gary Comer College Prep
2015-2018	Leadership Council Member University of Chicago Careers in Education
2015-2016	Corps Member Jumpstart Early Childhood Program

Educational Material Development

2020-2023	Pre-Grad Resource Development Subcommittee Member Project SHORT
2017-2019	Content Creator OCEANA Optimization of the Capabilities to Engage and Acquire, using Neuroscientific methods <i>Donders Institute for Brain, Cognition and Behavior</i>
2016-2019*	App Developer iOS Education App Microbiology <i>*sold</i>

Reviewing

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

Mentorship

2024-Present	Eli Bailit Undergraduate Research Assistant <i>Fellowship(s): Undergraduate Research Assistantship (UGAR; 2 terms)</i>
2024-Present	David Igbalajobi Undergraduate Research Assistant
2024-Present	Isaac Wells Undergraduate Research Assistant
2022-Present	Sofia Yawand-Wossen Undergraduate Research Assistant (Thesis Student) <i>Fellowship(s): Undergraduate Research Assistantship (UGAR; 3 terms)</i>
2022-2024	Tory Benson Full-time Research Assistant/ Lab Manager Project: Valence, but Not Content, of Narrative Interpretations of Naturalistic Stimuli are Predicted by Personality Traits
2022-2024	Evan Bloch Undergraduate Research Assistant (Thesis Student) Project: People with higher depressive tendencies are more idiosyncratic in their event boundaries <i>Fellowship(s): Undergraduate Research Assistantship (UGAR; 4 terms)</i>
2021-2024	Megan Leung Undergraduate Research Assistant <i>Fellowship(s): James O. Freedman Presidential Scholar (3 terms); Undergraduate Research Assistantship (UGAR; 2 terms)</i>
2023	Robin Sandell Post-Grad Research Assistant
2022	Payton Weiner Undergraduate Research Assistant <i>Fellowship(s): Undergraduate Research Assistantship (UGAR; 2 terms)</i>

Technical and language skills

- **Programming:**
 - Extensive experience with Python, MATLAB, R, JsPsych
 - Experience with JavaScript, HTML
- **Neuroscience and Psychology:**
 - Extensive experience with fMRI, iEEG data collection and analysis
 - Experience with intracranial electrical stimulation, scalp EEG, eye tracking
 - Additional: TMS training, wet lab, and animal handling techniques
- **Language:**
 - Bilingual Proficiency: English, Romanian
 - Professional Working Proficiency: Spanish, French
 - Elementary Working Proficiency: German