

Sonia G. Ruiz

Department of Psychology, Yale University
2 Hillhouse Ave., Kirtland Hall B14, New Haven, CT 06511
408-841-6757 | sonia.ruiz@yale.edu

EDUCATION

- 2021 – present **Yale University**, New Haven, CT
Psychology doctoral student
- 2015 – 2019 **Yale University**, New Haven, CT
B.S. in Psychology, with Distinction
Cumulative GPA: 3.82/4.00

HONORS AND AWARDS

- 2022 **Conference Travel Fund (\$500)**, *Yale University*
Awarded funding to support presenting research at 2022 APS Annual Convention
- 2022 **Student Travel Award (\$200)**, *Association for Psychological Science*
Awarded funding to support presenting research at 2022 APS Annual Convention
- 2022 – 2025 **National Science Foundation Graduate Research Fellowship (\$102,000 + 3 years tuition)**
Awarded three years of support for graduate research
- 2019, 2020 **IRP Fellows' Training Day Science as Art Competition (\$500)**, *National Institute of Mental Health*
Selected as winner for research-related scientific illustration
- 2019 **Robert G. Crowder Undergraduate Research Prize (\$1000)**, *Yale University*
Awarded prize honoring one graduating senior for exceptional research and leadership contributions to the Department of Psychology
- 2019 **John Morrison Memorial Award (\$1000)**, *Yale University*
Awarded prize for best graphic contribution to the Yale Record
- 2018 **Creative Performing Arts Award (\$500)**, *Yale University*
Awarded grant for exhibition featuring observational and scientific illustrations
- 2018 **Psi Chi International Honor Society in Psychology**, *Yale University*
- 2016 **Alumni Community Service Fellowship (\$3000)**, *Yale University*
Awarded fellowship supporting internship at Healing Strides of Virginia, mental health non-profit

PUBLICATIONS

**Asterisks denote equal contribution*

Peer-Reviewed Articles

1. *Abend, R., *Burke, D., **Ruiz, S.G.**, Gold, A.L., Napoli, J.L., Britton, J.C., Michalska, K.J., Shechner, T., Winkler, A.M., Leibenluft, E., Pine, D.S., & Averbeck, B.B. (2022). Computational modeling of rapid threat learning reveals links with anxiety and neuroanatomy. *eLife*, e66169.
2. Baskin-Sommers, A., **Ruiz, S.**, Sarcos, B. & Simmons, C. (2022). Cognitive-affective factors underlying disinhibitory disorders and legal implications. *Nature Reviews Psychology*, 1-16.
3. Abend, R., **Ruiz, S.G.**, Bajaj, M.A., Harrewijn, A., Linke, J.O., Atlas, L.Y., Winkler, A.M., & Pine, D.S. (2022). Threat imminence reveals links among unfolding of anticipatory physiological response, cortical-subcortical intrinsic functional connectivity, and anxiety. *Neurobiology of Stress*, 16, 100428.
4. Monsey, M.S., **Ruiz, S.G.**, & Taylor, J.R. (2020). Regulation of garcinol on histone acetylation in the amygdala and on the reconsolidation of a cocaine-associated memory. *Frontiers in Behavioral Neuroscience*, 13, 281.

Invited Book Chapters

1. **Ruiz, S.G.**, Casey, B.J. & Baskin-Sommers, A. (2022). Brain development and the risk for substance use, misuse, and substance use disorders. In D.S. Charney & E.J. Nestler (Eds.), *Neurobiology of Mental Illness*. 6th Edition. (pp. xxx-xxx). Oxford University Press: New York, NY.

Submitted Manuscripts

1. **Ruiz, S.G.**, Brazil, I.A., & Baskin-Sommers, A. (Submitted). What is Neurotypical?: Distinct Neurocognitive Fingerprints Reflect Differential Associations with Risky and Impulsive Behavior in a Neurotypical Sample.
2. Harrewijn, A., **Ruiz, S.G.**, Abend, R., Haller, S.P.W., Subar, A., Swetlitz, C., Valadez, E.A., Brotman, M.A., Chronis-Tuscano, A., Leibenluft, E., Fox, N.A., & Pine, D.S. (Submitted). Development of brain mechanisms underlying threat bias: relations with childhood social reticence and adolescent anxiety.
3. Newsome, P., **Ruiz, S.G.**, Gold, A.L., Pine, D.S., Abend, R. (Under review). Fear-potentiated startle reveals attenuated threat extinction in pathological anxiety.

POSTER PRESENTATIONS

1. Newsome, P., **Ruiz, S. G.**, Gold, A. L., Pine, D. S., Abend, R. (2022, November). *Associations among physiology, brain morphometry, and anxiety in human threat learning: divergent evidence from electrodermal and electromyography indices of defensive responding*. Poster to be presented at the Annual Meeting of Society for Neuroscience, San Diego, CA.
2. Newsome, P., Frank, S., **Ruiz, S.G.**, Lopez-Guzman, S., Pine, D.S., Abend, R., & Qi, S. (2022, September). *Computational modeling of approach-avoidance conflict reveals increased punishment sensitivity in pediatric anxiety*. Poster presented at the 24th NIMH IRP Fellows' Scientific Training Day, Bethesda, MD.
3. Quezada, D., Newsome, P., **Ruiz, S.G.**, Pine, D.S., Qi, S., & Abend, R. (2022, September). *Linking fear circuit morphometry and treatment responses to indices of conditioned fear in anxiety patients*. Poster presented at the 24th NIMH IRP Fellows' Scientific Training Day, Bethesda, MD.
4. **Ruiz, S.G.**, Brazil, I.A., & Baskin-Sommers, A.R. (2022, May). *Distinct neurocognitive fingerprints reflect differential associations with problematic substance use*. Poster presented at the 2022 Association for Psychological Science Annual Meeting, Chicago, IL.
5. **Ruiz, S.G.**, Brazil, I.A., & Baskin-Sommers, A.R. (2022, May). *Do neurocognitive fingerprints of executive functioning associate with CU traits in adolescence?* Poster presented at the 2022 Society for the Scientific Study of Psychopathy Annual Meeting, Virtual Conference.
*Short-listed for Cheryl Wynne Hare Award
6. Newsome, P., **Ruiz, S. G.**, Pine, D. S., Abend, R. (2022, April). *Assessing threat learning in anxiety as induced uncertain-threat states*. Poster presented at 2022 NIH Postbac Poster Day, Bethesda, MD
7. Newsome, P., **Ruiz, S.G.**, Pine, D.S., & Abend, R. (2021, September). *Modeling behavioral avoidance in anxious youths using a novel conflict paradigm*. Poster presented at the 23rd NIMH IRP Fellows' Scientific Training Day, Bethesda, MD.
8. **Ruiz, S.G.**, Pine, D.S., & Abend, R. (2021, April). *Startle response during threat extinction reveals attenuated extinction in anxiety and links with neuroanatomy and treatment outcome*. Poster presented at the 2021 Society of Biological Psychiatry Annual Meeting, San Diego, CA.
9. Abend, R., **Ruiz, S.G.**, Bajaj, M.A., Pine, D.S. (2021, April). *Temporal dynamics of anticipatory physiological responding in pediatric anxiety disorders*. Poster presented at the 2021 Society of Biological Psychiatry Annual Meeting, San Diego, CA.
10. Harrewijn, A., **Ruiz, S.G.**, Abend, R., Haller, S.P.W., Subar, A., Swetlitz, C., Valadez, E.A., Brotman, M.A., Chronis-Tuscano, A., Leibenluft, E., Fox, N.A., & Pine, D.S. (2021, April). *Development of brain mechanisms underlying threat bias: Relations with childhood social reticence and adolescent anxiety*. Poster presented at the 2021 Society of Biological Psychiatry Annual Meeting, San Diego, CA.
11. **Ruiz, S.G.**, Napoli, J.L., Gold, A.L., Britton, J.C., Michalska, K.J., Shechner, T., Winkler, A.M., Leibenluft, E., Pine, D.S., Averbek, B.B., & Abend, R. (2020, September). *Computational modeling of threat learning: associations with anxiety and brain structure*. Poster presented at the 22nd NIMH IRP Fellows' Scientific Training Day, Bethesda, MD.

12. **Ruiz, S.G.**, Pine, D.S., & Abend, R. (2020, April). *Modeling avoidance in pediatric anxiety*. Poster presented at 2020 NIH Postbac Poster Day, Bethesda, MD.
13. **Ruiz, S.G.**, Pine, D.S., & Harrewijn, A. (2019, September). *Development of attention bias to threat*. Poster presented at the 21st NIMH IRP Fellows' Scientific Training Day, Washington, DC.
14. **Ruiz, S.G.**, Monsey, M.S., Franklin, A.N., & Taylor, J.R. (2019, February). *Sex differences in RBPI expression following fear memory retrieval and the effects of Vitamin A deficient diet on memory reconsolidation*. Poster presented at the 30th Northeast Undergraduate Research Organization for Neuroscience (NEURON) Conference, Hamden, CT.
15. Monsey, M.S., Franklin, A.N., **Ruiz, S.G.**, Lam, T.T., Nairn, A.C., Taylor, J.R. (2018, October). *Effects of garcinol administration on microtubule dynamics following cocaine-cue memory retrieval*. Poster presented at the 48th Society for Neuroscience Conference, San Diego, CA.

ORAL PRESENTATIONS

1. **Ruiz, S.G.** & Baskin-Sommers, A.R. (2022, April). *Experimental and computational models of multiple cost considerations in risky decision-making: project proposal*. Invited scientific talk presented at Yale University Neuroeconomics Group, New Haven, CT.
2. **Ruiz, S.G.**, Pine, D.S., & Abend, R. (2021, February). *Startle response during threat extinction reveals attenuated extinction in anxiety and links with neuroanatomy and treatment outcome*. Scientific talk presented at NIMH Fellows Afternoon Neuroscience Seminars, Bethesda, MD.
3. **Ruiz, S.G.**, Pine, D.S., & Abend, R. (2021, January). *Computational Modeling of Threat Learning Reveals Links with Anxiety and Neuroanatomy*. Scientific talk presented at Section for Development and Affective Neuroscience lab meeting, Bethesda, MD.
4. **Ruiz, S.G.**, Pine, D.S., & Abend, R. (2020, April). *Doors: an approach-avoidance task*. Scientific talk presented at Section for Development and Affective Neuroscience lab meeting, Bethesda, MD.
5. **Ruiz, S.G.**, Monsey M.S., & Taylor, J.R. (2019, February). *Sex differences in protein regulation and gene expression following fear memory retrieval*. Scientific talk presented at the 2018-2019 Grace Hopper College Senior Mellon Forum, New Haven, CT.

RESEARCH EXPERIENCE

2021- present **Mechanisms of Disinhibition Lab**, Yale University, CT

Mentor: Arielle Baskin-Sommers, PhD

Graduate Student

- Design and conduct research examining cognitive and affective factors involved in dysfunctional cost-benefit decision-making and learning and their implications for risky behaviors
- Perform research identifying subgroups of individuals based on latent neurocognitive dimensions underlying risky and impulsive behaviors through data-driven methods
- Design mental health resource and psychological skills educational handouts for Transitions Clinic, which provides care to patients who are formerly incarcerated
- Conduct research interviews and administer neuropsychological assessments (ShIPLEY, WRAT, Trails A&B, Digit Backwards, Stroop) with community participants
- Assist with participant recruitment, phone screening, and scheduling, as well as lab protocols for questionnaire scoring, coding, and quality control

2019 – 2021 **Section on Development and Affective Neuroscience**, National Institute of Mental Health, MD

Mentor: Daniel Pine, MD

Intramural Research Training Award Fellow

- Led independent study to identify psychophysiological and neural correlates underlying anticipatory associative learning

- Developed novel approach-avoidance task to quantify conflicts between approach and avoidance motivations in youth
- Applied computational learning models to identify distinct associative learning processes and their neuroanatomical correlates in participants with anxiety
- Studied neurodevelopmental processes underlying attentional bias towards negative stimuli and its associations with anxiety in a longitudinal cohort
- Independently preprocessed data, assisted with group analyses, and scripted behavioral analyses
- Managed all IRB activities for longitudinal collaboration with University of Maryland's Child Development Lab
- Coordinated caseload of treatment-seeking children with anxiety disorders, including scheduling therapy sessions and facilitating behavioral and fMRI tasks, in addition to longitudinal participants

2017 – 2019 **Taylor Lab**, Department of Psychiatry, Yale University, CT

Mentors: Jane Taylor, PhD; Melissa Monsey, PhD

Research Assistant

- Led independent thesis project examining sex differences in protein regulation and related gene expression following cued associative learning and memory retrieval
- Identified proteins regulated by memory retrieval in a cocaine self-administration paradigm
- Fear conditioned Sprague-Dawleys, extracted brains, isolated amygdala tissue, performed Western blots and qRT-PCR on brain and fecal samples
- Tracked estrous cycle in female Sprague-Dawleys, assisted with rodent surgeries

2019 **Anticevic Lab**, Department of Psychiatry, Yale University, CT

Mentors: Alan Anticevic, PhD; Nicole Santamauro, MA

Student Research Intern

- Helped coordinate longitudinal study mapping neurobiology of early-course schizophrenia
- Phone-screened patients, facilitated behavioral tasks, and performed data entry utilizing REDCap
- Facilitated patient recruitment by designing new posters and managing social media advertising

2018 **Yale Instruction-Investigation-Intervention in Emotional Lability and Dysregulation Program**, Yale University, CT

Mentors: Seth Axelrod, PhD; Emily Cooney, PhD

Research Assistant

- Transcribed and performed data entry for clinical interviews assessing suicide attempts and self-harm

2016 – 2017 **Affect Regulation and Cognition Lab**, Yale University, CT

Mentors: Jutta Joormann, PhD; Hannah Raila, PhD

Research Assistant

- Collected and pre-processed electrophysiology data examining cognitive reappraisal and distraction during mood manipulation task (utilized: MindWare HRV)

CLINICAL EXPERIENCE

2022- present **Yale Psychology Department Clinic**, Yale Department of Psychology, New Haven, CT

Supervisors: Mary O'Brien, PhD, Faith Prelli, PsyD

Practicum Student

- Conduct audio and video-supervised individual therapy sessions using techniques from CBT, DBT, ACT, and MI with adults with mood and anxiety disorders
- Conduct clinic intakes administering the SCID-5 and Structured Clinical Interview for Axis II Disorders (SCID-II), and develop and present case conceptualizations at weekly group conference

2019 – 2021 **Section on Development and Affective Neuroscience**, National Institute of Mental Health, MD

Supervisor: Daniel Pine, MD

Intramural Research Training Award Fellow

- Administered neuropsychological testing (WASI) to anxious and healthy participants

2016 **Healing Strides of Virginia**, Boones Mill, VA
Supervisor: Mary Harkless, LCSW
Summer Clinical Social Work Intern

- Wrote progress summaries using client session notes to help set treatment goals
- Assisted clients with mental and physical disabilities in therapy sessions

TEACHING EXPERIENCE

Fall 2022 **Graduate teaching fellow**, Introduction to Cognitive Science
Instructor: Brian Scholl, PhD

PUBLISHED SCIENTIFIC ILLUSTRATIONS

1. Textbook illustration (2020). Dell, P. *Mystery of the Tully Monster*. Heinemann.
2. Featured program and website artwork (2020). 22nd Annual NIMH IRP Fellows' Scientific Training Day.
<https://wwwapps.nimh.nih.gov/str/displayHome.action>
3. Journal cover (2020). *Biological Psychiatry*, 87:11, 937.
[https://www.biologicalpsychiatryjournal.com/issue/S0006-3223\(19\)X0011-6#fullCover](https://www.biologicalpsychiatryjournal.com/issue/S0006-3223(19)X0011-6#fullCover)
4. Featured graphical abstract (2020). *Brain*, 143:1, 374.
<https://academic.oup.com/brain/issue/143/1#979880-5679563>
5. Journal cover (2019). *Brain*, 142:6, 1489.
<https://academic.oup.com/brain/issue/142/6>

SERVICE AND LEADERSHIP

- 2022 - present **Student Coordinator**, Current Work in Clinical Psychology Speaker Series
- Coordinate and organize speakers for clinical area speaker series
- 2022 - present **Student Coordinator**, Yale Psychology Department Colloquium Committee
- Coordinate and organize speaker visits for department-wide colloquia
- 2021 - present **Graduate Application Mentor**, Yale Sneak Peek Program
- Mentor underrepresented applicants through graduate school application process by answering questions, offering feedback on application materials, and conducting interview preparation
- 2021 - present **Pre-Grad Mentor**, Project SHORT
- Mentor underrepresented applicants through graduate school application process by answering questions, offering feedback on application materials, and conducting interview preparation
- 2021 - present **Member**, Yale Student Science Diplomats
- Vaccine Communication Committee Member: Disseminate information about COVID-19 vaccines to regions with low vaccination rates in New Haven County
- 2021 **Student Coordinator**, Yale Psychology Department Graduate Applicant Interview Day
- Coordinate interview day for clinical area applicants
- 2019 – 2021 **Intramural Research Training Award Fellow**, Section on Development and Affective Neuroscience, National Institute of Mental Health, Bethesda, MD
- Science Communication Lead: designed and illustrated newsletter for patients highlighting lab press releases and research findings
 - Fellow Course Organizer: coordinated fMRI methods and research statistics lecture course series
 - Fellow Transition Leader: led training on administrative duties and behavioral tasking for incoming research assistants
 - Science Illustrator: created graphical abstracts, figures, and task images for variety of projects

- 2019 **Mental Health and Learning Scholarship Fundraiser**, *Healing Strides of Virginia, Boones Mill, VA*
- Fundraised \$974 for new scholarship by coordinating sale of over 15 of own illustrations
- 2018 – 2019 **Psi Chi Executive Board Member**, Yale Psychology Department
- Coordinated monthly educational and social events for Psi Chi group members
 - Organized first Undergraduate Research Opportunity Mixer, attended by over 50 principal investigators, postdoctoral fellows, graduate students, and undergraduates in neuroscience and psychology areas
- 2017- 2019 **Illustrations Editor**, Yale Daily News
- Led team of 20+ illustrators to provide visuals for daily paper, Science & Technology, Weekend, and Magazine supplements
 - Developed new recruiting strategy to double desk staff, introduced new half-page spread, established social media presence to showcase staff work
 - Own illustrations published in the *New York Times*, purchased by Heinemann Publishing for textbook
- 2016 – 2017 **Production Manager**, *Saybrook College Orchestra, Yale University*
- Produced annual Music Education Concert; designed new orchestra logo; booked concert venues

PROFESSIONAL MEMBERSHIPS

- 2022 – present Association for Psychological Science (APS)
2022 – present Society for a Science of Clinical Psychology (SSCP)

ADDITIONAL SKILLS

Data Analytic and Management Software

- Analysis of Functional Neuroimaging (AFNI)
- FreeSurfer
- R/R Studio
- SPSS
- Linux/Unix
- AcqKnowledge
- Ledalab
- PsychoPy
- E-Prime
- GraphPad Prism
- MindWare
- MED Associates VideoFreeze
- Molecular techniques: microtome brain tissue slicing, tissue isolation, and homogenization; Western blotting, qRT-PCR, cell culture

Clinical Trainings and Certifications

- Wechsler Abbreviated Scale of Intelligence (WASI) administration and scoring
- Red Cross First Aid, CPR, and AED certification
- MRI safety certification training
- Naloxone administration training

Graphics Software

- Blender
- Adobe Photoshop
- Adobe Illustrator
- Adobe InDesign
- Adobe Lightroom
- Procreate