

# Benjamin M. Silver

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## EDUCATION

- 2019– **Columbia University**, Ph.D. in Psychology  
Advisor: Kevin Ochsner, Ph.D.  
Secondary advisor: Chris Baldassano, Ph.D.
- 2019–2021 **Columbia University**, M.S. in Psychology  
Advisor: Kevin Ochsner, Ph.D.  
Secondary advisor: Chris Baldassano, Ph.D.
- 2013–2017 **Brown University**, Honors Sc.B in Cognitive Neuroscience, 3.95 GPA  
Focus in Learning and Memory  
Honors thesis: *The relationship between pretend play and working memory in preschool aged children*  
Advisor: Dima Amso, Ph.D.

## AWARDS

- 2023 Arts and Sciences Graduate Council Student Travel Grant
- 2022 Fellowship, Kavli Summer Institute in Cognitive Neuroscience
- 2022 Seed Grant, Columbia University Zuckerman Institute
- 2021 Teaching Observation Fellowship, Columbia University
- 2021 Neurohackademy participant
- 2020 Psychology Department Lead Teaching Fellowship, Columbia University
- 2017 Member, Sigma Xi
- 2016 Undergraduate Teaching and Research Award, Brown University
- 2015 BrownConnect LINK Award, Brown University
- 2013 Semifinalist, INTEL Science Talent Search Competition

## RESEARCH EXPERIENCE

- 2019– Graduate Student Research Fellow  
SCAN Lab, Psychology Department, Columbia University  
Advisor: Kevin Ochsner, Ph.D.
- 2017–2019 Research Coordinator  
Jones Lab, Sackler Institute for Developmental Psychobiology, Weill Cornell Medical College  
Advisor: Rebecca M. Jones, Ph.D.; Jonathan D. Power, M.D., Ph.D.
- 2015–2017 Undergraduate Researcher  
Developmental Cognitive Neuroscience Lab, Cognitive, Linguistic & Psychological Sciences Department, Brown University  
Advisor: Dima Amso, Ph.D.

## PUBLICATIONS

### *Manuscripts in prep/under review*

**Silver, B.M.**, Ochsner, K.N. (under review). How did the perceived morality of public figures change during #MeToo?

**Silver, B.M.**, Yu, W., Davachi, L., Ochsner, K.N. (in prep). What are my friends really like? Motivated perceptions after completing a virtual escape room.

### *Published*

Abstracts from the 2022 Annual Meeting of the Society for Affective Science. *Affect Sci* (2023). <https://doi.org/10.1007/s42761-022-00175-w>

Bos, D.J., Barnes, E.D., **Silver, B.M.**, Ajodan, E.L., Clark-Whitney, E., Scult, M.A. Power, J.D., Jones, R.M. (2021). An effort-based social feedback paradigm reveals aversion to popularity in socially anxious participants and increased motivation in adolescents. *PLOS ONE*. DOI: <https://doi.org/10.1371/journal.pone.0249326>

Lynch, C.J., Voss, H., **Silver, B.M.**, Power, J.D. (2021). On measuring head motion and effects of headmolds during fMRI. *Neuroimage*. DOI: <https://doi.org/10.1016/j.neuroimage.2020.117494>

**Silver, B.M.**, Conte, M.M., Victor, J.D., Jones, R.M. (2020). Visual search for circumscribed interests in autism is similar to that of neurotypical individuals. *Frontiers in Psychology*. DOI: <https://doi.org/10.3389/fpsyg.2020.582074>

Lynch, C.J., **Silver, B.M.**, Dubin, M.J., Martin, A., Jones, R.M., Power, J.D. (2020). A prevalent, sex-biased respiratory pattern influences functional connectivity MRI in young adults. *Nature Communications*. DOI: <https://doi-org.ezproxy.cul.columbia.edu/10.1038/s41467-020-18974-9>

Bos, D.J., **Silver, B.M.**, Barnes, E., Ajodan, E.L., Silverman, M.R., Clark-Whitney, E., Tarpey, T., Jones, R.M. (2019). Adolescent-specific motivation deficits in autism versus typical development. *Journal of Autism and Developmental Disorders*. DOI: <https://doi.org/10.1007/s10803-019-04258-9>

Power, J.D., Lynch, C. J., Dubin, M.J., **Silver, B.M.**, Martin, A., Jones, R.M. (2019). Characteristics of respiratory measures in young adults scanned at rest, including systematic changes and “missed” deep breaths. *Neuroimage*. DOI: <https://doi.org/10.1016/j.neuroimage.2019.116234>

Power, J.D., Lynch, C.J., **Silver, B.M.**, Dubin, M.J., Martin, A., Jones, R.M. (2019). Distinctions among real and apparent respiratory motions in human fMRI data. *Neuroimage*. DOI: <https://doi.org/10.1016/j.neuroimage.2019.116041>

Bos, D.J., Silverman, M.R., Ajodan, E.L., Martin, C., **Silver, B.M.**, Brouwer, G., Di Martino, A., Jones, R.M. (2019). Rigidity coincides with reduced cognitive control to affective cues in children with autism. *Journal of Abnormal Psychology*. Preprint DOI: [10.31234/osf.io/faz45](https://doi.org/10.31234/osf.io/faz45)

Power, J.D., **Silver, B.M.**, Silverman, M.R., Ajodan, E.L., Bos, D.J., Jones, R.M.

(2019). Customized head molds reduce motion during resting state fMRI. *Neuroimage*. DOI: [doi.org/10.1016/j.neuroimage.2019.01.016](https://doi.org/10.1016/j.neuroimage.2019.01.016)

## PRESENTATIONS

### *First author*

- 2023      **Silver, B.M.**, Baldassano, C., Davachi, L., Ochsner, K.N. *Do you like me back? Motivated perceptions and cognitive effort for potential romantic partners*. Poster presented at the Social and Affective Neuroscience Society. Santa Barbara, CA.
- 2023      **Silver, B.M.**, Yu, W., Davachi, L., Ochsner, K.N. *What are my friends really like? Motivated perceptions after completing a virtual escape room*. Poster presented at the Society for Affective Science. Long Beach, CA.
- 2022      **Silver, B.M.**, Baldassano, C., Davachi, L., Ochsner, K.N. *Romantic remembering: Social information determines individualized reward value and motivates memory*. Poster presented at the Social and Affective Neuroscience Society. Online.
- 2022      **Silver, B.M.**, Ochsner, K.N. *Morality and #MeToo: Motivated impression updating on Twitter*. Flash talk presented at the Society for Affective Science; Online.
- Denoted as “High-ranking abstract”; invited to submit abstract as conference publication
- 2020      **Silver, B.M.**, Li, D.H., Mayers, A., Croxson, P.L. *Neuroscience education from home: Challenges and opportunities*. Interactive talk to be presented at the Neuromatch conference; Online.
- 2019      **Silver, B.M.**, Lynch, C.J., Clark-Whitney, E., Barnes, E., Power, J.D., Jones, R.M. *Longitudinal resting-state fMRI using individual-specific analyses in autism*. Poster presented at the FLUX Congress; New York, NY.
- 2019      **Silver, B.M.**, Barnes, E., Clark-Whitney, E., Conte, M.M., Victor, J.D., Jones, R.M. *Developing a novel visual search task personalized for individual interests*. Poster presented at the INSAR Conference; Montreal, Canada.
- 2018      **Silver, B.M.**, Bos, D.J., Ajodan, E., Silverman, M., Power, J.D., Jones, R.M. *Preferred interests interfere with self-control in autism*; Poster presented at The Social and Affective Neuroscience Society Conference; Brooklyn, NY.
- 2017      **Silver, B.M.** *The relationship between pretend play and working memory in preschool aged children*; Oral undergraduate honors thesis presentation; Providence, RI.

### *Middle author*

- 2021      Li, D.H., **Silver, B.M.**, Patel, P., Remole, K.E., Imbimbo, J., Mayers, A.M., Shohamy, D., Croxson, P.L. *Advancing high school research exposure through BRAINYAC: Brain Research Apprenticeships In New York At Columbia*. Poster presented at the Society for Neuroscience Annual Meeting; Online
- 2021      Croxson, P.L., Li, D.H., **Silver, B.M.**, Patel, P., Remole, K.E., Imbimbo, J., Mayers, A., Shohamy, D. *Advancing high school research exposure through Brain*

*Research Apprenticeships in New York at Columbia (BRAINYAC)*. Poster presented at BRAIN Initiative Investigators Meeting; Online

- 2019 Barnes, E., **Silver, B.M.**, Clark-Whitney, E., Ajodan, E.L., Scult, M., Jones, R.M. *Studying teen choices on social media: validation of a novel social decision-making task*. Poster presented at the FLUX Congress; New York, NY.
- 2019 Jones, R.M., Barnes, E., Ajodan, E.L., **Silver, B.M.**, Clark-Whitney, E., Scult, M. *Behavioral and neural correlates of adolescent-specific social motivations: Implications for psychosocial treatments*. Talk presented at the Anxiety and Depression Conference; Chicago, IL.
- 2019 Bos. D.J., Ajodan, E.L., Silverman, M.R., **Silver, B.M.**, Martin, C., Di Martino, A., Jones, R.M. *Similarities and differences in cognitive control to motivating cues in autism and (co-morbid) ADHD*. Poster presented at the INSAR Conference; Montreal, Canada.
- 2019 Bos. D.J., Tarpey, T., **Silver, B.M.**, Ajodan, E.L., Silverman, M.R., Martin, C., Jones, R.M. *Absence of adolescent-specific sensitivity to motivating cues in Autism*. Poster presented at the INSAR Conference; Montreal, Canada.
- 2018 Bos. D.J., Silverman, M.R., Ajodan, E.L., Martin, C., **Silver, B.M.**, Di Martino, A., Jones, R.M. *Cognitive control to affective cues across neurodevelopmental disorders*; Poster presented at the Eunethydis Conference; Edinburgh, Scotland.
- 2018 Ajodan, E., **Silver, B.M.**, Silverman, M., Southerland, A., Chanda, K., Stubbs, E.A., Lord, C., Rehg, J., Rozga, A., Jones, R.M. *Gaze patterns during parent-child versus clinician-child interactions*; Poster presented at the INSAR Conference; Rotterdam, Netherlands.
- 2018 Bos, D.J., Silverman, M., Ajodan, E., Martin, C., **Silver, B.M.**, Di Martino, A., Jones, R.M. *Reconciling the co-occurrence of impulsivity and insistence on sameness in ASD*; Talk presented at the INSAR Conference; Rotterdam, Netherlands.
- 2017 Freier, L., Gunther, K., **Silver, B.M.**, Badre, D., Amso, D. *3- to 7-year-olds' use of working memory gating strategies in a naturalistic task*; Poster presented at the Society for Research in Child Development Conference; Austin, TX.

## RELEVANT RESEARCH SKILLS

- Neuroimaging analysis – NIPY suite, FSL, SPM, AFNI, Freesurfer, Connectome Workbench
- Data analysis/organization – Python, R, Matlab, bash/tcsh, SPSS, Excel, REDCap
- Experimental design – PsychoPy3, PsychToolbox, Qualtrics, E-Prime
- Video and gaze coding – Interact, Datavyu, Yabus, Boris
- Clinical assessments – Autism Diagnostic Observation Schedule (reliable on Modules 3, 4), Wechsler Adult Intelligence Scale-IV, Differential Ability Scales-II, Mullen, Woodcock-Johnson-III, Brief Observation of Social Communication Change

## TEACHING AND MENTORING EXPERIENCE

2022–2023 Teaching Consultant – Center for Teaching and Learning

- Observe and provide feedback to graduate students across the university about their teaching
- 2022, Fall Teaching Assistant, Section Instructor – Research Methods: Social Cognition and Emotion
- 2022, Spring Teaching Assistant, Section Instructor – Research Methods: Social Cognition and Emotion
- 2021 Instructor, Summer Internship Program in Psychological Science
- Taught undergraduate students in R programming, the scientific method, and science communication
- 2021 Teaching Assistant, Section Instructor – Research Methods: Social/Personality
- 2020 Assistant Instructor – Columbia Psychology coding bootcamp
- 2020 Teaching Assistant, Guest Lecturer – Social Psychology
- Guest lecture: Attitudes and Consistency
- 2020 Teaching Assistant, Guest Lecturer – Thinking and Decision Making
- Guest lecture: The Cognitive Neuroscience of Decision Making

#### *Mentored students*

- 2023 Duygu Cakmur: Undergrad research assistant
- 2022 Brena Bessa: Post-bac research assistant
- 2022– Jessie Lin: Undergrad research assistant, summer research project
- 2021– Arielle Clark: Undergrad research assistant, senior honors thesis project
- 2021–2022 Jana Jaran: Undergrad research assistant, senior honors thesis project
- 2021–2022 Monica Boose: Undergrad research assistant
- 2021 Charlotte Cassidy: Post-bac research assistant, summer research project

### **GENERAL AUDIENCE PUBLICATIONS**

- “Sarah Woolley, Neuroscientist” *Muse Magazine* (November/December 2022 issue)
- “Dr. Uraina Clark” *Scientist on the Subway* (March 21, 2022)
- “Anita Burgos, PhD” *Scientist on the Subway* (September 13, 2021)
- “Shivon Robinson, PhD” *Scientist on the Subway* (November 30, 2020)

### **SERVICE AND OUTREACH EXPERIENCE**

- Volunteer peer reviewer:* Autism Research, Social Cognitive and Affective Neuroscience
- Society member:* Social Affective Neuroscience Society, Society for Affective Science

- 2023 Instructor, Genspace
- Taught a two-day workshop for the general public entitled “Neurohacking 101: Analyzing and visualizing brain networks”
- 2023 Instructor, Double Discovery Center
- Created and taught a 7-week course on science communication for high school students in a college prep program
- 2022–2023 Coordinator, BraiNY Bunch

- Organize and facilitate a virtual journal club for high school and undergraduate students from around the world
- 2020–2022      Instructor, Brain Research Apprenticeships in New York at Columbia
- Taught neuroscience to high school students, helped build course curriculum, mentored students during summer internships
  - Served as Senior Instructor 2021–2022
- 2020–2023      Writer/Outreach coordinator, Scientist on the Subway (SciSub)
- Interview neuroscientists from underrepresented backgrounds, write articles
  - Develop curricula based on SciSub articles, coordinate partnerships with science education programs
- 2020–2022      Psychology Department Monday Seminar Coordinator
- Organized weekly seminar series for department with both external and internal speakers, as well as panels
- 2021–2023      Organizer/Instructor, Summer Internship Program in Psychological Science
- Internship program for undergraduates to learn psychology research skills and complete an internship
  - Part of core team running the program; taught coding and professional development workshops
- 2021              Mentor, Mindhive
- Mentored high school students on citizen science projects
- 2020              Instructor, Columbia Volunteer Tutoring Corps Summer Camp
- Designed and taught course about the science of cooking to middle and high school students
- 2019              Instructor, Columbia University Neuroscience Outreach Multi-Visit Program
- Taught neuroscience to middle school students at Renaissance School of the Arts and helped them prepare for a final presentation
- 2018              Summer Program Co-Director, The Sackler Institute, Weill Cornell Medical College
- Assisted in creation and management of inaugural summer internship program for high school and college students
- 2017–2018      Instructor, Mad Science
- Performed and taught as a “Mad Scientist” for children’s birthday parties
- 2014–2017      Science Center Student Worker, Brown University
- Created, wrote, and hosted a web series about science research at Brown (<https://bit.ly/2Ozxdke>)
  - Coordinated “Science Underground” science café program
- 2015–2017      Brown Brain Bee High School Coordinator, Brown University
- Taught basic neuroscience to high school students, recruited high schools to participate, mentored other student teachers
- 2016–2017      Tour Program Co-Coordinator, Brown University
- Oversaw 100 tour guides, ran training sessions, gave tours and information sessions to visiting families

2015

Summer Intern, Liberty Science Center

- Led presentations on museum floor, assistant taught summer camps, explained exhibits to museum guests