# Benjamin M. Silver

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# **EDUCATION AND RESEARCH EXPERIENCE**

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SCAN Lab; Psychology Department Advisor: Kevin N. Ochsner, Ph.D.

Secondary advisor: Chris Baldassano, Ph.D.

2017-2019 Weill Cornell Medical College, Research Coordinator

Jones Lab; Sackler Institute for Developmental Psychobiology

Advisor: Rebecca M. Jones, Ph.D.

Secondary advisor: Jonathan D. Power, M.D., Ph.D.

2013-2017 Brown University, Honors Sc.B in Cognitive Neuroscience, 3.95 GPA

Developmental Cognitive Neuroscience Lab; Cognitive, Linguistic & Psychological

Sciences Department

Honors thesis: The relationship between pretend play and working memory in

preschool aged children Advisor: Dima Amso, Ph.D.

# AWARDS AND FUNDING

#### Research

| 2024 | Incite Doctoral Dissertation Grant                                    |
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| 2024 | Psychology Department Graduate Travel Award                           |
| 2023 | Graduate School of Arts and Sciences Conference Matching Travel Award |
| 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 | Neurohackademy participant  |
| 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                 |

# Teaching/outreach

| 2024 | Columbia Graduate School of Arts and Sciences Teaching Scholars Fellowship |
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| 2023 | APS Teaching Fund Small Grant  |
| 2023 | POD Network GPPD Career Development Grant                                  |
| 2023 | Fellowship, ComSciCon Flagship Workshop                                    |
| 2021 | Teaching Observation Fellowship, Columbia University                       |
| 2020 | Lead Teaching Fellowship, Columbia University                              |

# **PUBLICATIONS**

Manuscripts in prep/under review

- **Silver, B.M.**, Williams-Ceci, S., Naaman, M. (in prep). Perceptions of Al moderators and the spread of misinformation in closed group chats.
- **Silver, B.M.**, Baldassano, C., Davachi, L., Ochsner, K.N. (in prep). The role of the dmPFC in responding to social feedback from potential romantic partners.
- **Silver, B.M.**, Corbani, F., Muskin, P.R., Davachi, L., Ochsner, K.N. (in prep). Investigating hypnosis as a tool for emotion regulation during fMRI.
- **Silver, B.M.**, Yu, W., Davachi, L., Ochsner, K.N. (under review). What are my friends really like? How we change our perceptions of familiar others' traits and actions. <a href="https://doi.org/10.31234/osf.io/n75xc">https://doi.org/10.31234/osf.io/n75xc</a>
- Silver, B.M., Meyer, M., Davachi, L., Ochsner, K.N. (in revisions). Changes in self-views in response to the 2020 U.S. presidential election. https://doi.org/10.31234/osf.io/pq4k5

#### Published

- Silver, B.M., Ochsner, K.N. (2024). Changes in Online Moral Discourse About Public Figures During #MeToo. *Affec Sci.* https://doi.org/10.1007/s42761-024-00250-4
- Top-rated abstracts from the 2022 Annual Meeting of the Society for Affective Science. *Affec 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*.
- 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*. 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*. 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*. <a href="https://doi.org/10.1038/s41467-020-18974-9">https://doi.org/10.1038/s41467-020-18974-9</a>
- 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*. 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*.

# 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*. 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*. <a href="https://doi.org/10.1037/abn0000423">https://doi.org/10.1037/abn0000423</a>

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.org/10.1016/j.neuroimage.2019.01.016

# UNIVERSITY TEACHING AND MENTORING EXPERIENCE

Instructor of record

2024, Fall PSYC3830: Psychology and the Internet

- Developed and taught course as part of Columbia's Teaching Scholars program
- Course syllabus here

Teaching assistant

2024, Spring PSYC2435: Social Neuroscience

• Guest lecture: Social neuroscience and social media

2022, Fall PSYC1450: Research Methods: Social Cognition and Emotion

Led weekly lab section

2022, Spring PSYC1450: Research Methods: Social Cognition and Emotion

Led weekly lab section

2021, Spring PSYC1455: Research Methods: Social/Personality

Led weekly lab section

2020, Summer Teaching assistant, guest lecturer - Social Psychology

Guest lecture: Attitudes and Consistency

2020, Spring Teaching assistant, guest lecturer - Thinking and Decision Making

Guest lecture: The Cognitive Neuroscience of Decision Making

Other

2023

Participant, Center for Teaching and Learning Innovative Course Design Workshop

- Five-week workshop devoted to creating and designing an original undergraduate course with innovative elements
- Designed a course entitled "Psychology and the Internet"

2022–2024 Teaching Consultant - Center for Teaching and Learning

 Conduct in-class observations, mid-course reviews, and practice teaching sessions for graduate student instructors across the university

- Consult with graduate students on teaching materials and teaching statements for the academic job market
- 2021 Instructor, Summer Internship Program in Psychological Science
  - Taught undergraduate students in R programming, the scientific method, and science communication
- 2020 Assistant Instructor Columbia Psychology coding bootcamp

#### Mentored students

| 2021-2024 | Arielle Clark: Senior honors thesis project, undergrad research assistant |
|-----------|---|
| 2022-2024 | Jessie Lin: Undergrad research assistant, summer research project         |
| 2023      | Duygu Cakmur: Undergrad research assistant                                |
| 2022      | Brena Bessa: Post-bac research assistant                                  |
| 2021-2022 | Jana Jaran: Senior honors thesis project, undergrad research assistant    |
| 2021-2022 | Monica Boose: Undergrad research assistant                                |
| 2021      | Charlotte Cassidy: Post-bac research assistant, summer research project   |

# **PRESENTATIONS**

### Talks and workshops

| 2024 | Silver, B.M., Williams-Ceci, S., Naaman, M. (in prep). <i>Perceptions of AI moderators and the spread of misinformation in closed group chats.</i> Flash talk presented at the Psychology of Technology conference. Boston, MA.   |
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| 2024 | Panelist, Zuckerman Institute Neuroethics Teacher Institute   |
| 2024 | Invited guest speaker, Social Learning and Choice Lab (Leor Hackel) lab meeting   |
| 2024 | Co-facilitator, Teaching observation workshop, Center for Teaching and Learning   |
| 2022 | <ul> <li>Silver, B.M., Ochsner, K.N. Morality and #MeToo: Motivated impression updating on Twitter. Flash talk presented at the Society for Affective Science. Online.</li> <li>Denoted as "High-ranking abstract"; invited to submit abstract as conference publication</li> </ul> |
| 2020 | Silver, B.M., Li, D.H., Mayers, A., Croxson, P.L. <i>Neuroscience education from home: Challenges and opportunities.</i> Interactive talk presented at the Neuromatch conference. Online.   |
| 2017 | Silver, B.M. The relationship between pretend play and working memory in preschool aged children; Oral undergraduate honors thesis presentation.  |

#### Posters: First author

Providence, RI.

- Silver, B.M., Baldassano, C., Davachi, L., Ochsner, K.N. *Always on my mind:*The role of the dmPFC in responding to social feedback from potential romantic partners. Poster presented at the Social and Affective Neuroscience Society.

  Toronto, CA.
- Silver, B.M., Corbani, F., Muskin, P.R., Davachi, L., Ochsner, K.N. You are

- enjoying this poster: Investigating hypnosis as a tool for emotion regulation during fMRI. Poster presented at the Society for Affective Science. New Orleans, LA.
- 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.
- 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.
- 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.
- 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.
- 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.
- 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.

#### Posters: Middle author

- Li, D.H., Gumnit, M., Shah, A., Bravo, I., Silver, B.M., Patel, P., Miller, M., Remole, K.E., Imbimbo, J., Shohamy, D., Croxson, P.L., Mayers, A.M. Brain Research Apprenticeships In New York At Columbia (BRAINYAC) strengthens STEM identity and self-efficacy in high school students through coursework and mentored research. Poster presented at the Society for Neuroscience Annual Meeting. Washington, D.C.
- 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
- 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
- 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.
- 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.

- 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.
- 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.
- 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.
- 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.
- 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.
- 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, Yarbus, 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

# GENERAL AUDIENCE PUBLICATIONS

<sup>&</sup>quot;Elodie Freyman, Primatologist" Muse Magazine (April 2024 issue)

<sup>&</sup>quot;Facebook and campus mental health" Center for Brain Mind and Society (September 26, 2023)

<sup>&</sup>quot;Executive Functioning" Center for Brain Mind and Society (September 26, 2023)

<sup>&</sup>quot;Is mind reading possible?" Muse Magazine (September 2023 issue)

<sup>&</sup>quot;Something Magical" Muse Magazine (May/June 2023 issue)

<sup>&</sup>quot;Laura Lewis, PhD" Scientist on the Subway (April 10, 2023)

<sup>&</sup>quot;Sarah Woolley, Neuroscientist" Muse Magazine (November/December 2022 issue)

<sup>&</sup>quot;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

2024 Mentor, BioBus

- Advised high school students on a science research project during weekly after-school sessions
- Provided guidance on research questions, procedures, data analysis, and presentations

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

 Organized and facilitated 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)

- Interviewed neuroscientists from underrepresented backgrounds, write articles
- Developed 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 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

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

| 2017-2018 | Instructor, Mad Science • Performed and taught as a "Mad Scientist" for children's birthday parties  |
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| 2014-2017 | <ul> <li>Science Center Student Worker, Brown University</li> <li>Created, wrote, and hosted a web series about science research at Brown (<a href="https://bit.ly/20zxdke">https://bit.ly/20zxdke</a>)</li> <li>Coordinated "Science Underground" science café program</li> </ul> |
| 2015–2017 | <ul> <li>Brown Brain Bee High School Coordinator, Brown University</li> <li>Taught basic neuroscience to high school students, recruited high schools to participate, mentored other student teachers</li> </ul>   |
| 2016-2017 | <ul> <li>Tour Program Co-Coordinator, Brown University</li> <li>Oversaw 100 tour guides, ran training sessions, gave tours and information sessions to visiting families</li> </ul>  |
| 2015      | Summer Intern, Liberty Science Center  • Led presentations on museum floor, assistant taught summer camps, explained exhibits to museum guests   |