

**Samuel David McDougle** ■ samuel.mcdougle@yale.edu ■ Mobile: (646)  
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## **Academic Appointments**

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|--|-----------|
| Assistant Professor<br>Department of Psychology, <b>Yale University</b>  | 2020-     |
| Program Faculty:<br>Interdepartmental Neuroscience Program, <b>Yale University</b>   | 2020-     |
| Cognitive Science Program, <b>Yale University</b>  | 2020-     |
| Wu Tsai Institute, <b>Yale University</b>  | 2021-     |
| Postdoctoral Fellow<br>Advisers: Anne G.E. Collins, Richard B. Ivry<br>Helen Wills Neuroscience Institute, <b>University of California, Berkeley</b> | 2018-2020 |

## **Education**

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|--|-----------|
| Ph.D., Psychology & Neuroscience. <b>Princeton University</b><br>Adviser: Jordan A. Taylor | 2013-2018 |
| B.A., Neuroscience & Behavior. <b>Vassar College</b>                                       | 2005-2009 |

## **Research Interests**

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The psychological processes and neural substrates of learning and memory; cognitive contributions to motor learning, control, and memory; mental representations of complex skills; automaticity; neural correlates of motor cognition; subcortical contributions to cognition

## **Research Funding**

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| <b>National Institute for Health, R01NS132926</b> (Total: \$2,093,750)<br><i>Generalized Prediction Errors in the Human Cerebellum</i><br>Role: PI           | 2023-2028 |
| <b>Wu Tsai Institute</b> Innovation Grant (Total: \$150,000)<br><i>Domain-general Neural Algorithms for Motion Detection</i><br>Role: co-PI (w/ Damon Clark) | 2022-2024 |

**Meta** Unrestricted Research Gift (Total: \$25,000)  
Role: PI 2023-

**Yale University** Seesel Endowed Award for Postdoc Recruitment (Total: \$75,000)  
*The Role of the Cerebellum in Reward-Based Learning: Implications for Neural Computation* 2022-2023  
Role: Mentor

### **Awards, Fellowships, & Honors**

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Early Career Award, **The Society for the Neural Control of Movement** 2024  
Ruth L. Kirschstein National Research Service Award, **National Institutes of Health** 2019  
Young Researcher Award, **Karniel Computational Motor Control Workshop** 2017

Graduate Research Fellowship (GRFP), **National Science Foundation** 2015-2018  
Centennial Scholar Fellowship, **Princeton University** 2013-2017

General Honors, Vassar College 2009  
Inducted Member, **Psi Chi International Honor Society in Psychology** 2008

### **Research Positions**

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Visiting Scholar 2016  
Adviser: Richard B. Ivry, **University of California, Berkeley**

Research Technician 2009-2011  
Adviser: Javier F. Medina, **University of Pennsylvania**

### **Preprints**

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Naser Al-Fawakhiri & **Samuel D. McDougle**  
Independent Influences of Movement Distance and Visual Distance on Fitts' Law  
*bioRxiv*, DOI: 10.1101/2023.09.20.558709

Sami R. Yousif & **Samuel D. McDougle**  
Oblique Biases: An Instance of Domain- and Modality-General Spatial Representation  
*PsyArXiv*, link: <https://psyarxiv.com/wxya3/>

Naser Al-Fawakhiri, Sarosh Kayani, & **Samuel D. McDougle**  
Evidence of an Optimal Error Rate for Motor Skill Learning  
*bioRxiv*, DOI: 10.1101/2023.07.19.549705

Juliana E. Trach, Megan T. deBettencourt, Angela Radulescu, & **Samuel D. McDougle**  
Reward Prediction Errors Modulate Attentional Vigilance  
*PsyArXiv*, link: <https://psyarxiv.com/c8zq7>

Eugene Poh, Naser Al-Fawakhiri, Rachel Tam, Jordan A. Taylor, & **Samuel D. McDougle**  
Generalization of Motor Learning in Psychological Space  
*bioRxiv*, DOI: 10.1101/430542

## **Publications**

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Hanna Hillman, Tabea Botthof, Alexander D. Forrence, & **Samuel D. McDougle** (2024)  
Dissociable Codes in Motor Working Memory  
*Psychological Science*, [In Press]

Sami R. Yousif, Alexander D. Forrence, & **Samuel D. McDougle** (2023)  
A Common Format for Representing Spatial Location in Visual and Motor Working Memory  
*Psychonomic Bulletin & Review*, [In Press]

Christopher L. Hewitson, Naser Al-Fawakhiri, Alexander D. Forrence, & **Samuel D. McDougle** (2023)  
Metacognitive Judgments during Visuomotor Learning Reflect the Integration of Error History  
*Journal of Neurophysiology*, 130: 264-277

Ashleigh V. Rutherford, **Samuel D. McDougle**, & Jutta Joormann (2023)  
“Don't [Ruminate], be Happy”: A Cognitive Perspective Linking Depression and Anhedonia  
*Clinical Psychology Review*, 101:102255

Olivia A. Kim, Alexander D. Forrence, & **Samuel D. McDougle** (2022)  
Motor Learning without Movement  
*Proceedings of the National Academy of Sciences*, 119(30): e2204379119

Guy Avraham, Jordan A. Taylor, Assaf Breaks, Richard B. Ivry, & **Samuel D. McDougle** (2022)  
Contextual Effects in Sensorimotor Adaptation Adhere to Associative Learning Rules  
*eLife*, 11: e75801

Juan A. Gallego, Tamar R. Makin, & **Samuel D. McDougle** (2022)  
Going Beyond Primary Motor Cortex to Improve Brain-Computer Interfaces  
*Trends in Neurosciences*, 45(3): 176-183

**Samuel D. McDougle\***, Jonathan Tsay\*, Benjamin Pitt, Maedbh King, William Saban, Jordan A. Taylor, & Richard B. Ivry (2022)  
Continuous Manipulation of Mental Representations is Compromised in Cerebellar Degeneration  
*Brain*, 145(12): 4246-4263 \*co-authors

**Samuel D. McDougle**, Ian C. Ballard, Beth Baribault, Sonia J. Bishop & Anne G.E. Collins (2022)  
Executive Function Assigns Value to Novel Goal-Congruent Outcomes  
*Cerebral Cortex*, 32(1): 231:247

**Samuel D. McDougle**, Sarah A. Wilterson, Nicholas B. Turk-Browne, & Jordan A. Taylor (2022)

Revisiting the Role of the Medial Temporal Lobe in Motor Learning  
*Journal of Cognitive Neuroscience*, 34(3): 532-549

**Samuel D. McDougle** (2022)

Post-error Slowing During Instrumental Learning is Shaped by Working Memory-based Choice Strategies  
*Neuroscience*, 486: 37-45

Faisal Mushtaq, **Samuel D. McDougle**, Matt P. Craddock, Darius E. Parvin, Jack Brookes, Alexandre Schaefer, Mark Mon-Williams, Jordan A. Taylor, & Richard B. Ivry (2022)

Distinct Processing of Selection and Execution Errors in Neural Signatures of Outcome Monitoring  
*Journal of Cognitive Neuroscience*, 34(5): 748-765.

Anne G.E. Collins & **Samuel D. McDougle** (2021)

Context is Key for Learning Motor Skills  
*Nature*, 600: 387-388 [News & Views]

James W. Antony, Thomas H. Hartshorne, Ken Pomeroy, Todd M. Gureckis, Uri Hasson, **Samuel D. McDougle**, & Kenneth A. Norman (2021)

Behavioral, Physiological, and Neural Signatures of Surprise during Naturalistic Sports Viewing  
*Neuron*, 109: 377-390

**Samuel D. McDougle** & Anne G.E. Collins (2021)

Modeling the Influence of Working Memory, Reinforcement, and Action Uncertainty on Reaction Time and Choice during Instrumental Learning  
*Psychonomic Bulletin & Review*, 28: 20-39

Lisa Langsdorf, Jana Maresch, Mathias Hegele, **Samuel D. McDougle\***, & Raphael Schween\* (2021)

Prolonged Response Time Helps Eliminate Residual Errors in Visuomotor Adaptation  
*Psychonomic Bulletin & Review*, 28: 834-844 \*co-senior authors

Milena Rmus, **Samuel D. McDougle**, & Anne G.E. Collins (2020)

The Role of Executive Function in Shaping Reinforcement Learning  
*Current Opinion in Behavioral Sciences*, 38: 66-73

Raphael Schween, **Samuel D. McDougle**, Mathias Hegele, & Jordan Taylor (2020)

Assessing Explicit Strategies in Force Field Adaptation  
*Journal of Neurophysiology*, 123: 1552-1565

**Samuel D. McDougle**, Peter A. Butcher, Darius Parvin, Faisal Mushtaq, Yael Niv, Richard B. Ivry, & Jordan A. Taylor (2019)

Neural Signatures of Prediction Errors in a Decision-Making Task are Modulated by Action Execution Failures  
*Current Biology*, 29: 1606-1613

**Samuel D. McDougle** & Jordan A. Taylor (2019)  
Dissociable Cognitive Strategies for Sensorimotor Learning  
*Nature Communications*, 10(1), 40

Darius E. Parvin, **Samuel D. McDougle**, Jordan A. Taylor, & Richard B. Ivry (2018)  
Credit Assignment in a Motor Decision Making Task is Influenced by Agency and not  
Sensorimotor Prediction Errors  
*Journal of Neuroscience*, 38(19): 4521-4530

**Samuel D. McDougle**, Krista M. Bond, & Jordan A. Taylor (2017)  
Implications of Plan-based Generalization in Sensorimotor Adaptation  
*The Journal of Neurophysiology*, 118(1): 383-393

**Samuel D. McDougle**, Matthew J. Boggess, Matthew J. Crossley, Darius Parvin, Richard B.  
Ivry, & Jordan A. Taylor (2016)  
Credit Assignment in Movement-Dependent Reinforcement Learning  
*Proceedings of the National Academy of Sciences*, 113(24): 6797-6802

**Samuel D. McDougle**, Richard B. Ivry, & Jordan A. Taylor (2016)  
Taking Aim at the Cognitive Side of Learning in Sensorimotor Adaptation Tasks  
*Trends in Cognitive Sciences*, 20(7): 535-544

**Samuel D. McDougle**, Krista M. Bond, & Jordan A. Taylor (2015)  
Explicit and Implicit Processes Constitute the Fast and Slow Processes of Sensorimotor  
Learning  
*Journal of Neuroscience*, 35(26): 9568-9579

Selmaan N. Chettih, **Samuel D. McDougle**, Luis I. Ruffolo, & Javier F. Medina (2011)  
Adaptive Timing of Motor Output in the Mouse: The Role of Movement Oscillations in Eyelid  
Conditioning  
*Frontiers in Integrative Neuroscience*, 5(72)

## **Peer-Reviewed Conference Proceedings**

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Juliana E. Trach & **Samuel D. McDougle** (2023)  
Structured Dynamics of Hierarchical Action Selection  
*Proceedings of the 45th Annual Conference of the Cognitive Science Society* (\*selected for a talk)

Sami R. Yousif, Alexander D. Forrence, & **Samuel D. McDougle** (2023)  
A Common Format for Representing Spatial Location in Visual and Motor Working Memory  
*Proceedings of the 45th Annual Conference of the Cognitive Science Society* (\*selected for a talk)

Sami R. Yousif & **Samuel D. McDougle** (2023)  
A Common Oblique Bias in Perception and Action  
*Proceedings of the 45th Annual Conference of the Cognitive Science Society*

Juliana E. Trach & **Samuel D. McDougle** (2022)  
Climbing the Tree: Structured Hierarchical Representations in Visuomotor Maps  
*Proceedings of the 44th Annual Conference of the Cognitive Science Society* (\*selected for a talk)

Sami R. Yousif & **Samuel D. McDougale** (2022)  
Common Coordinate Systems for Perception and Action  
*Vision Sciences Society Annual Meeting*

Flora Zhang, **Samuel D. McDougale**, & Julia A. Leonard (2022)  
Thinking about Doing: Representations of Skill Learning  
*Proceedings of the 44th Annual Conference of the Cognitive Science Society (\*selected for a talk)*

Juliana E. Trach, Jed Burde, Megan T. deBettencourt, Angela Radulescu, & **Samuel D. McDougale** (2022)  
Reward Prediction Error Modulates Sustained Attention  
*Proceedings of the 5th Multidisciplinary Conference on Reinforcement Learning & Decision Making*

Sami R. Yousif, **Samuel D. McDougale**, & Robb B. Rutledge (2022)  
A Task-general Model of Human Randomization  
*Proceedings of the 44th Annual Conference of the Cognitive Science Society*

Olivia A. Kim, Alexander D. Forrence, & **Samuel D. McDougale** (2021)  
Sensory Prediction Errors are Sufficient for Implicit Adaptation of Withheld Movements  
*Motor Learning & Motor Control 2021*

**Samuel D. McDougale** & Jordan A. Taylor (2016)  
Mental Rotation as a Behavioral and Neural Model of Explicit Aiming During Visuomotor Learning  
*Motor Learning & Motor Control 2016*

## **Book Chapters**

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Jordan A. Taylor & **Samuel D. McDougale** (2019)  
Visuomotor Adaptation Tasks as a Window into the Interplay Between Explicit and Implicit Cognitive Processes  
*The Cognitive Neurosciences, 6th edition (ed. Michael S. Gazzaniga)*

## **Invited Talks (selected)**

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**Samuel D. McDougale** (2023)  
A Broader View of Motor Adaptation  
*The 8th CiNet Conference: Beyond Motor Control*  
*Center for Information and Neural Networks (CiNet), Osaka, Japan*

**Samuel D. McDougale** (2022)  
The Cerebellum and “Mental Kinematics”  
*Johns Hopkins Cerebellum Seminar, Johns Hopkins University, Baltimore, MD*

**Samuel D. McDougale** (2021)  
Space and Time in Movement Planning and Sensorimotor Adaptation  
*University College London, Gatsby Computational Neuroscience Unit, London, UK*

**Samuel D. McDougale** (2021)  
What's in a Learning Curve?  
*World Wide Neuro: The Learning Salon*

**Samuel D. McDougale** (2021)  
Executive Function Assigns Value to Abstract Reward Outcomes  
*Neuroeconomics Forum, Yale University, New Haven, CT*

**Samuel D. McDougale** (2020)  
Strategic Processes in Human Motor Skill Learning  
*University of Birmingham Centre for Human Brain Health Seminar, Birmingham, UK*

**Samuel D. McDougale** (2020)  
The Cognitive-Motor Interface  
*Biological Sciences Training Program at Yale Psychiatry, New Haven, CT*

**Samuel D. McDougale** (2020)  
Cognitive Representations in Visuomotor Learning  
*University of Leeds Research Colloquium, Leeds, UK*

**Samuel D. McDougale** (2019)  
Cerebellar Contributions to Visuomotor Cognition  
*Neural Control of Movement 2019, Toyama, Japan*

**Samuel D. McDougale** (2018)  
The Steep Part of the Curve: Cognitive Representations in Human Learning  
*Yale Psychology, New Haven, CT*

**Samuel D. McDougale** (2018)  
Dynamics of Working Memory Reinforcement Learning Interactions  
*Stanford Psychology Cognition and Neuroscience Seminar Series 2018, Palo Alto, CA*

**Samuel D. McDougale** (2018)  
Parametric and Discrete Representations in Motor Learning  
*Berkeley Neuroscience Retreat 2018, Richmond, CA*

**Samuel D. McDougale** (2018)  
Dissociable Roles for Working Memory in Sensorimotor Learning  
*Berkeley Cognition and Computation Colloquium 2018, Berkeley, CA*

**Samuel D. McDougale** (2017)  
Analog Computations Drive Strategic Re-aiming of an Intended Movement  
*Karniel Computational Motor Control Workshop 2017, Beer-Sheva, Israel*

**Samuel D. McDougale** (2016)  
Mental Rotation as a Behavioral and Neural Model of Explicit Aiming during Visuomotor Learning  
*Motor Learning and Motor Control 2016, San Diego, CA*

**Samuel D. McDougle** (2015)

Examining the Various Processes Driving Sensorimotor Learning

*Gordon Research Conference, Cerebellum: Circuit Physiology, Computation and Disease 2015, Lewiston, ME*

## **Chaired Conference Symposia and Workshops**

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Motor Learning and Motor Control

(**Co-chair**, November 2023) *Society for Neuroscience annual satellite meeting*. Co-chairs: Gelsy Torres-Oviedo, Kurt Thoroughman, & Maurice Smith.

The Cerebellum Beyond Motor Control: Insights Into Health and Disease

(**Chair**, November 2022) *Society for Neuroscience*. Minisymposium. Co-chair: Caroline Nettekoven

Cerebellar Function and Pathology: Progress on Cellular, Behavioral and Computational

Principles (**Chair**, July 2017) *Gordon Research Seminar, Cerebellum*. Co-chair: Lauren McElvain

## **Conference Presentations** (*selected*)

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Hanna Hillman, Tabea Botthof, Alexander D. Forrence, & **Samuel D. McDougle** (2023)

Disentangling Visuospatial and Motor Working Memory

*Society for Neuroscience 2023, Washington D.C.*

Juliana E. Trach, Tristan S. Yates, Dawoon Choi, Lillian Behm, Cameron T. Ellis,

**Samuel D. McDougle**, & Nicholas B. Turk-Browne (2023)

Striatal Involvement in Reward Processing in the Human Infant Brain

*Society for Neuroscience 2023, Washington D.C.*

Tolu A. Adanri, Juliana E. Trach, & Samuel D. McDougle (2023)

Compression of Hierarchical Cognitive Representations with Extensive Practice

*Society for Neuroscience 2023, Washington D.C.*

Juliana E. Trach & **Samuel D. McDougle** (2023)

Hierarchical Action Selection

*Neural Control of Movement 2023, Victoria, Canada*

Hanna Hillman, Tabea Botthof, Alexander D. Forrence, & **Samuel D. McDougle** (2023)

Interference in Motor Working Memory

*Neural Control of Movement 2023, Victoria, Canada*

Naser Al-Fawakhiri & **Samuel D. McDougle** (2023)

Instrumental-motor Transfer

*Neural Control of Movement 2023, Victoria, Canada*

Hanna Hillman, Tabea Botthof, & **Samuel D. McDougle** (2022)

Evidence for Dual Processes in Motor Working Memory

*Society for Neuroscience 2022, San Diego, CA*



Juliana E. Trach, Megan deBettencourt, Angela Radulescu, & **Samuel D. McDougle** (2022)  
Reward Prediction Errors Modulate Attentional Vigilance  
*Society for Neuroscience 2022, San Diego, CA*

Alexander D. Forrence & **Samuel D. McDougle** (2022)  
Does Human Motor Adaptation Require Conscious Awareness of Errors?  
*Society for Neuroscience 2022, San Diego, CA*

Benjamin Parrell, Chris Naber, Olivia A. Kim, Caroline Nizolek, & **Samuel D. McDougle** (2022)  
Sensory Errors Drive Speech Adaptation even in the Absence of Overt Movement  
*Society for Neuroscience 2022, San Diego, CA*

Sami R. Yousif & **Samuel D. McDougle** (2022)  
Common Coordinate Systems for Perception and Action  
*Vision Sciences Society 2022*

Hanna Hillman & **Samuel D. McDougle** (2022)  
Two Components of Motor Working Memory  
*Neural Control of Movement 2022, Dublin, Ireland*

Olivia A. Kim, Alexander D. Forrence, & **Samuel D. McDougle** (2021)  
Sensory Prediction Errors are Sufficient for Implicit Adaptation of Withheld Movements  
*Neural Control of Movement 2021*

Guy Avraham, Jordan A. Taylor, Richard B. Ivry, & **Samuel D. McDougle** (2019)  
Is Visuomotor Adaptation Classical Conditioning?  
*Neural Control of Movement 2019, Toyama, Japan*

**Samuel D. McDougle**, Sonia Bishop, & Anne G.E. Collins (2019)  
Behavioral and Neural Signatures of Reinforcement Learning with Arbitrary Pseudo-rewards  
*Society for Neuroscience 2019, Chicago, IL*

William Ryan, **Samuel D. McDougle**, & Anne G.E. Collins (2019)  
Working Memory Contributions to Probabilistic Reinforcement Learning  
*RLDM 2019, Montreal, Canada*

James W. Antony, **Samuel D. McDougle**, Tom Harthshorne, Todd Gureckis, Uri Hasson, & Kenneth A. Norman (2019)  
March Madness: Behavioral, Physiological, and Neural Effects of Continuously Updated Surprise and Suspense  
*Society for Neuroscience 2019, Chicago, IL*

**Samuel D. McDougle** & Anne G.E. Collins (2019)  
Uncertainty in Choice Policy Explains Reaction Time: Toward a Unified Account of Set Size, Repetition, Delay, and Learning Effects on Choice Reaction Time  
*Cognitive Neuroscience Society 2019, San Francisco, CA*

**Samuel D. McDougle**, Peter A. Butcher, Darius Parvin, Faisal Mushtaq, Yael Niv, Richard B. Ivry, & Jordan A. Taylor (2018)  
Neural Signatures of Reward Prediction Errors in a Decision-Making Task are Modulated by Action Execution Failures  
*Society for Neuroscience 2018, San Diego, CA*

**Samuel D. McDougle** & Jordan A. Taylor (2018)  
Parametric Versus Discrete Working Memory Representations in Sensorimotor Learning  
*Neural Control of Movement 2018, Santa Fe, NM*

**Samuel D. McDougle**, Richard B. Ivry, & Jordan A. Taylor (2017)  
Dissociable Effects of Cerebellar Degeneration on Continuous versus Discrete Working Memory Transformations  
*Gordon Research Conference: Cerebellum 2017, Lewiston, ME*

**Samuel D. McDougle** & Jordan A. Taylor (2017)  
Leveraging the Motor System to Reveal Intermediate Cognitive States  
*Society for Neuroscience 2017, Washington D.C.*

**Samuel D. McDougle** & Jordan A. Taylor (2017)  
Between Zero and One: Evidence for an Analog Computation in the Re-planning of Movements  
*Neural Control of Movement 2017, Dublin, Ireland*

**Samuel D. McDougle**, Nicholas B. Turk-Browne, & Jordan A. Taylor (2016)  
Recalibration, Heuristics, and Learning *de novo*: On the Multiple Processes of Sensorimotor Learning and the Role of the Medial Temporal Lobe  
*Society for Neuroscience 2016, San Diego, CA*

**Samuel D. McDougle**, Krista M. Bond, & Jordan A. Taylor (2016)  
The Consequences of Aim-Based Generalization on Visuomotor Adaptation  
*Neural Control of Movement 2016, Montego Bay, Jamaica*

**Samuel D. McDougle**, Matthew J. Crossley, Matthew B. Boggess, Richard B. Ivry, & Jordan A. Taylor (2015)  
Credit Assignment in Movement-Dependent Reinforcement Learning  
*Learning & Memory 2015, Austin, TX*

**Samuel D. McDougle**, Krista M. Bond, & Jordan A. Taylor (2015)  
The Role of Reward, Punishment, and Movement Direction on Implicit Sensorimotor Learning  
*Progress in Motor Control 2015, Budapest, Hungary* \*(Best Poster award)

**Samuel D. McDougle**, Krista M. Bond, & Jordan A. Taylor (2015)  
Explicit and Implicit Processes Underlie Fast and Slow Processes of Motor Learning  
*Neural Control of Movement 2015, Charleston, SC*

Peter A. Butcher, Richard B. Ivry, **Samuel D. McDougle**, Sheng-Han Kuo, David Rydz, John W. Krakauer, & Jordan A. Taylor (2015)  
Cerebellar Degeneration Disrupts Aiming Strategies and Motor Adaptation in a Sensorimotor Learning Task  
*Gordon Research Conference, Cerebellum: Circuit Physiology, Computation and Disease 2015, Lewiston, ME*

**Samuel D. McDougle**, Richard B. Ivry, & Jordan A. Taylor (2014)  
Sensory Prediction Errors Affect Reinforcement Learning  
*Society for Neuroscience 2014, Washington D.C.*

Charlotte Arlt, Farzaneh Najafi, **Samuel D. McDougle**, Samuel S.-H. Wang, Ilker Ozden, & Javier F. Medina (2010)  
Eyeblink Conditioning and *In Vivo* Calcium Imaging in Mice Walking on a Floating-Ball Apparatus  
*Society for Neuroscience 2010, San Diego, CA*

## **Teaching**

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### **Yale**

Primary Instructor: *Introduction to Psychology* (Yale University)  
Primary Instructor: *Learning & Memory* (Yale University)  
Primary Instructor: *Cognitive Psychology* (Yale University)  
Primary Instructor: *Human Skill Learning* (Yale University)  
Primary Instructor: *The Science and Culture of Memory* (Yale University; selected by FAS Dean's office in a competitive cross-divisional course proposal call; Psychology + English Department)

Co-Instructor: *Psychology Graduate Proseminar* (Yale University)  
Guest Instructor: *Foundations of Neuroscience: Biological Bases of Human Behavior* (Yale University)  
Guest Instructor: *Seminar in Cognitive Science* (Yale University)

### **Other**

Primary Instructor: *Introduction to Psychology* (Yale Prison Education Initiative)  
Primary Instructor: *The Cerebellum & Cognition* (UC Berkeley, online course)  
Lead Lecturer: *Introduction to Psychology* (Princeton Prison Teaching Initiative)  
Teaching Assistant: *Cognitive Psychology* (Princeton University)

Private Tutor: *Math and Biology* (Bespoke Education, New York City)

## **Mentoring**

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### **Research Lab Mentorship**

#### *Postdocs*

Zekun Sun (2023-), postdoc (Yale)  
Christopher Hewitson (2022-), postdoc (Yale)  
Olivia Kim (2020-2022), visiting postdoc (Princeton/Yale) {\*Now Assistant Professor at Bates\*}

#### *Graduate Students*

Sanghoon Kang (2023-), graduate student (Yale)  
Apoorva Sharma (2023-), graduate student (Yale)  
Hanna Hillman (2020-), graduate student (Yale)  
Juliana Trach (2020-), graduate student (Yale)

Sami Yousif (2020-2022), co-advised graduate student (Yale) {\*Now postdoc at UPenn\*}  
Liang Zhou (2022-), visiting graduate student (UCL/Yale)

*Research Assistants and Research Scientists*

Alexander Forrence (2020-), research scientist (Yale)  
Naser Al-Fawakhiri (2022-2023), RA (Yale) {\*Now MD/PhD student at Johns Hopkins\*}  
Eivinas Butkus (2020-2021), visiting RA (Yale) {\*Now PhD student at Columbia\*}

*Undergraduate RAs*

Liz Pandolpho (2023-), undergraduate (Yale)  
Stephanie Hu (2023-), undergraduate (Yale)  
Taylor McClure (2023-), undergraduate (Yale)  
Luke Smith (2023-), visiting undergraduate (Cal Poly)  
Tolu Adanri (2022-), undergraduate (Yale)  
Ophelia Pilkinton (2022-), undergraduate (Yale)  
Samantha Goodcase (2022-), undergraduate (Yale)  
Sarosh Kayani (2022), undergraduate (Yale)  
Sabrina Santos De-Leon (2022), visiting undergraduate (University of Puerto Rico)  
Parisa Vaziri (2021-), undergraduate (Yale)  
Addison Beer (2021-2022), undergraduate (Yale)  
Tal Boger (2021-2022), undergraduate (Yale)  
Katherine Chou (2021-2022), undergraduate (Yale)  
Michael Irias (2021-2022), undergraduate (Yale) {\*Now PhD student (U. of Florida)\*}  
Tabea Buthof (2021-2022), undergraduate (Yale) {\*Now professional hockey player (Sweden)\*}  
Jed Burde (2021-2022), undergraduate (Yale)  
Cameron Berg (2021-2022), undergraduate (Yale) {\*Now software engineer at Meta\*}  
Eddie Yu (2020-2021), undergraduate (Yale)  
David Zheng (2020-2021), undergraduate (Yale)

*Pre-Yale Mentees*

Eliana Shaulson (2019), undergraduate (Berkeley)  
Ham Huang (2018-2019), undergraduate (Berkeley) {\*Now graduate student at Princeton\*}  
Helen Lu (2018-2019), undergraduate (Berkeley) {\*Now research scientist at GIT\*}  
Seo Yoon Oh (2018), undergraduate (Berkeley)  
Mitashee Das (2017), undergraduate (Princeton)  
André Belarmino (2015), undergraduate (Princeton) {\*Now resident MD at UCLA\*}  
Krista Bond (2014-2017), research assistant (Princeton) {\*Now PhD student at CMU\*}

**Dissertation Committees**

Kathryn Graves, Yale Psychology (Committee Chair)  
Sami Yousif, Yale Psychology (Committee Chair)  
Emory Richardson, Yale Psychology  
Lena Skalaban, Yale Psychology  
Michael Lopez-Brau, Yale Psychology  
Ashleigh Rutherford, Yale Psychology  
Siqi Fan, Yale Psychology

**Prospectus and Theme Essay Reader**

Amanda Royka, Yale Psychology  
Erica Busch, Yale Psychology  
Prabaha Gangopadhyay, Yale Psychology

Ashleigh Rutherford, Yale Psychology  
Hanna Hillman, Yale Psychology  
Juliana Trach, Yale Psychology  
Wanchen Zhao, Yale Psychology

**Interdepartmental Neuroscience Program**

Max Greenwald (Quals)  
Marie McCusker (Quals)  
Neil Savalia (Quals)

**Undergraduate Academic Advising**

Santiago Calderon (Yale '24), Psychology  
Daniela Naumov (Yale '24) Neuroscience  
Samantha Goodcase (Yale '24), Neuroscience  
Derek Song (Yale '25), Neuroscience  
Owen Hacker (Yale '26)  
Anjal Jain (Yale '26)  
Modupe Karimi (Yale '26)  
Hugo Lehrach (Yale '26)

**Senior Thesis Advising**

Cameron Berg, Yale Cognitive Science ('22 Yale Glushko prize winning thesis)  
Tal Boger, Yale Psychology  
Tabea Botthof, Yale Psychology  
Ophelia Pilkinton, Yale Neuroscience  
Aparajita Chauhan, Yale Psychology  
Addison Beer, Yale Cognitive Science  
Yehia Elkersh, Yale Cognitive Science  
Sarosh Kayani, Yale Neuroscience  
Patrick Brown, Yale Neuroscience  
Alex Lance, Yale Psychology  
Sonia Lingos-Utley, Yale Cognitive Science  
Sam Ryan, Yale Psychology  
Arielle Tessier, Yale Psychology

**Service & Outreach**

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Yale

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|---|-----------|
| Co-chair, <b>Committee for Racial Equity &amp; Justice (CREJ)</b> (Yale Psychology)               | 2022-2023 |
| Instructor and initiator of YPEI's psychology curriculum, <b>Yale Prison Education Initiative</b> | 2021-     |
| Member, <b>Cognitive Science Executive Committee</b>  | 2023-     |
| Member, <b>Wu Tsai Institute Search Committee</b>   | 2023      |
| Member, <b>Psychology Clinical Area Search Committee</b>  | 2023      |
| Member, <b>Psychology Neuroscience Area Search Committee</b>                                      | 2023      |
| Member, <b>Psychology Neuroscience Area Search Committee</b>                                      | 2022      |
| Member, <b>Psychology Open Area Search Committee</b>  | 2021      |

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| Member, <b>Committee for Racial Equity &amp; Justice</b>                           | 2020-     |
| Member, <b>Student Awards Committee</b>  | 2020-2021 |
| Member, <b>Psychology Dpt. Hiring Reading Group</b>                                | 2020-2022 |
| Member, <b>Wu Tsai Institute Speaker Series Committee</b>                          | 2023      |
| Member, <b>Wu Tsai Institute Conference Committee</b>                              | 2023      |
| Organizer, <b>Current Works in Developmental &amp; Cognitive Psychology</b>        | 2021-2022 |
| Reader, <b>Senior Essays</b> (Psychology)  | 2021-     |
| Reader, <b>Senior Essays</b> (Cognitive Science)                                   | 2021-     |
| Reader, <b>Senior Theses</b> (Neuroscience)  | 2021-     |
| Reviewer, <b>Yale College Dean's Summer Research Fellowship</b>                    | 2023      |
| Judge, <b>Spring Minorities Symposium</b>  | 2022      |
| Judge, <b>Angier Prize</b> (Psychology Essays)                                     | 2021      |
| Judge, <b>Senior Showcase</b>  | 2020      |
| Panelist, <b>Yale Postgrad Research Symposium</b>                                  | 2022      |
| <i>Other</i>   |           |
| Elected Board Member, <b>The Society for the Neural Control of Movement</b>        | 2022-2025 |
| Faculty Advisor, <b>Innovators in Cognitive Neuroscience Organizing Committee</b>  | 2022-2023 |
| Chair, <b>Gordon Research Seminar: Cerebellum</b>                                  | 2017      |
| Instructor & Group Leader, <b>Princeton Prison Teaching Initiative</b> (Princeton) | 2014-2016 |

## Ad Hoc Reviewing

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### Journals

*Behavioral Neuroscience*  
*Brain*  
*Cerebral Cortex*  
*Cognition*  
*Cognitive, Affective, and Behavioral Neuroscience*  
*Consciousness & Cognition*  
*COSYNE*  
*Current Biology*  
*Current Opinion in Behavioral Sciences*  
*eLife*  
*eNeuro*  
*Experimental Brain Research*  
*Journal of Cognitive Neuroscience*  
*Journal of Experimental Child Psychology*  
*Journal of Experimental Psychology: General*  
*Journal of Experimental Psychology: Human Perception & Performance*  
*Journal of Mathematical Psychology*  
*Journal of Neurophysiology*  
*Journal of Neuroscience*  
*Journal of Vision*  
*Molecular Psychiatry*  
*Motor Learning & Motor Control*

*Nature Communications*  
*Nature Human Behavior*  
*Neural Computation*  
*NeuroImage*  
*Neuroscience*  
*Neuroscience and Biobehavioral Reviews*  
*npj Science of Learning*  
*PLoS Computational Biology*  
*PLoS ONE*  
*PNAS*  
*Psychonomic Bulletin and Review*  
*Quarterly Journal of Experimental Psychology*  
*Scientific Reports*  
*Trends in Cognitive Sciences*

### Granting Agencies

#### Domestic

*NIH: Learning, Memory, and Decision Neuroscience study section (panelist)*  
*NSF/NIH: Collaborative Research in Computational Neuroscience Program (panelist)*  
*NSF (ad hoc reviewer)*

#### International

*Wellcome Trust, UK (ad hoc reviewer)*  
*Israel Science Foundation (ad hoc reviewer)*

### Editing

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*eLife (Guest Reviewing Editor)*

### Other Activities

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*Science Writer/Contributor:* Wrote pieces for media outlets including *The Atlantic*, *Motherboard (Vice Media)*, and *The World Science Festival* (2011-2014)

*Editorial Consultant:* Worked for Samsung (via Razorfish LLC) developing a tech and culture mobile app (2012)

*Musician/Music Educator:* Competition fiddler/mandolinist/guitarist: Roxbury Fiddle Contest (Blue ribbon in band competition 2022 and 2023; Blue ribbons in old-time fiddle and mandolin; Red ribbon in bluegrass guitar); Charlie Poole Music Festival (Red ribbon in old-time fiddle; Red ribbon in bluegrass guitar); Former member (fiddle/guitar) of musical groups "The Powder Kegs" and "Tumbling Bones;" European and US touring at folk festivals and venues, including an appearance on American Public Media's *A Prairie Home Companion* (2007) where we were winners of the "Band's in their Twenties" competition; private fiddle/mandolin/guitar instructor (2009-2012); Current member, "Audrey Mae" (CT-based bluegrass band).