

## Jennifer L. Crawford

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### Current Position

Postdoctoral Fellow, Neurochemistry & Cognition Lab 2023-present  
Mentor: Anne Berry

### Education

Ph.D., Psychological & Brain Sciences, Washington University 2022  
M.A., Psychological & Brain Sciences, Washington University 2019  
B.S., Neuroscience, Brandeis University (*Highest Honors*) 2015

### Previous Research Positions

Graduate Student Researcher, Washington University (Mentor: Todd Braver) 2017-2022  
Research Assistant, Yale University (Mentor: Gregory Samanez-Larkin) 2015-2017  
Undergraduate Research Assistant, Brandeis University (Mentor: Angela Gutchess) 2012-2015

### Awards & Honors

Individual Postdoctoral Training Fellowship (F32-AG085890) 2024-2026  
Postdoctoral Neuroscience Training Fellowship (T32-NS007292) 2023-2024  
Dean's Award for Graduate Research Excellence (WUSTL) 2022  
Kavli Summer Institute in Cognitive Neuroscience, Fellow 2022  
Dissertation Research Award (WUSTL Psychological & Brain Sciences) 2021  
Outstanding Teaching Assistant Award (WUSTL Psychological & Brain Sciences) 2021  
Cognitive, Computational, & Systems Neuroscience Training Fellowship (T32-NS115672) 2021-2022  
Summer School in Social Neuroscience and Neuroeconomics, Fellow 2019  
Sallie P. Asche Travel Award, Dallas Aging & Cognition Conference 2019, 2023  
Aging & Development Training Fellowship (T32-AG000030) 2018-2021  
Provost's Undergraduate Research Fund Summer Research Fellowship 2014  
Joel Friedland '76 Endowed Scholarship 2014

### Research Support

NIA/NIH – R21-AG086729, Berry (PI)  
Aging, activity diversity, and brain health.  
Dates: 5/1/2024–4/30/2026; Direct Costs: \$275,000  
Role: Postdoc (co-wrote grant)

NIA/NIH – R24-AG054355, Scientific Research Network on Decision Neuroscience and Aging  
Cognitive effort and aging: Pilot project.  
Dates: 6/1/2019–3/31/2022; Direct Costs: \$30,000  
Role: PI (subaward)

### Publications

**Crawford, J.L. & Berry, A.S.** (In Press). Examining resilience to Alzheimer's disease through the lens of monoaminergic neuromodulator systems. *Trends in Neurosciences*.

- Crawford, J.L.**, Brough, R.E., Eisenstein, S.A., Peelle, J.E., & Braver, T.S. (2024). Generalized encoding of the relative subjective value of cognitive effort in dorsal ACC. *Journal of Neuroscience*, 44(38), 1-14.
- Aschenbrenner, A.J. **Crawford, J.L.**, Peelle, J.E., Fagan, A.M., Benzinger, T.L.S., Morris, J.C., Hassenstab, J., & Braver, T.S. (2023). Increased cognitive effort costs in healthy aging and preclinical Alzheimer's disease. *Psychology and Aging*, 38(5), 428-442.
- Crawford, J.L.**, English, T., & Braver, T.S. (2023). Cognitive effort-based decision-making across experimental and daily life indices in younger and older adults. *Journal of Gerontology: Psychological Sciences*, 78(1), 40-50.
- Green, M.A., **Crawford, J.L.**, Kuhnen, C.M., Samanez-Larkin, G.R., & Seaman, K.L. (2023). Multivariate associations between dopamine receptor availability and risky investment decision making across adulthood. *Cerebral Cortex Communications*, 4(2), tgad008.
- Crawford, J. L.**, Eisenstein, S. A., Peelle, J. E. & Braver, T. S. (2022). Domain-general cognitive motivation: Evidence from economic decision-making – Final Registered Report. *Cognitive Research: Principles and Implications*, 7(1), 23.
- Crawford, J.L.**, English, T., & Braver, T.S. (2022). Incorporating Ecological Momentary Assessment into multimethod investigations of cognitive aging: Promise and practical considerations. *Psychology and Aging*, 37(1), 84–96.
- Yee, D. M., **Crawford, J. L.** & Braver, T. S. (2022). An fMRI protocol for administering liquid incentives to human participants. *Star Protocols*, 3(4), 101707.
- Yee, D.M., **Crawford, J.L.**, Lamichhane, B., & Braver, T.S. (2021). Dorsal anterior cingulate cortex encodes the subjective motivational value of cognitive task performance. *Journal of Neuroscience*, 41(16), 3707-3720.
- Crawford, J.L.**, Yee, D.M., Hallenbeck, H.W., Naumann, A., Shapiro, K., Thompson, R.J., & Braver, T.S. (2020). Dissociable effects of monetary, liquid, and social incentives on motivation and cognitive control. *Frontiers in Cognition*, 11, 2212.
- Castrellon, J. J., Seaman, K. L., **Crawford, J. L.**, Young, J. S., Smith, C. T., Dang, L. C., et al. (2019). Individual differences in dopamine are associated with reward discounting in clinical groups but not in healthy adults. *Journal of Neuroscience*, 39(2), 321.
- Juarez, E.J., Castrellon, J.J., Green, M.A., **Crawford, J.L.**, Seaman, K.L., Smith, C.T., Dang, L.C., Zald, D.H., & Samanez-Larkin, G.R. (2019). Reproducibility of the correlative triad among aging, dopamine receptor availability, and cognition. *Psychology and Aging*, 34(7), 921–932.
- Smith, C.T., **Crawford, J.L.**, Dang, L.C., Seaman, K.L., San Juan, M.D., Vijay, A., Katz, D.T., Matuskey, D., Cowan, R.L., Morris, E.D., Zald, D.H., & Samanez-Larkin, G.R. (2019). Partial volume correction increases estimated dopamine D2-like receptor binding potential and reduces adult age differences. *Journal of Cerebral Blood Flow & Metabolism*, 39(5), 822–833.

### **Manuscripts Under Review/In Revision**

Chen, H-Y., Gold, B.S., Ciampa, C.J., **Crawford, J.L.**, Adornato, A.A., Cowan, J.L., O'Malley, K.E., Snyder, H.R., & Berry, A.S. (under review). Understanding the cognitive factors which contribute to individual differences in financial capacity in aging. *Psychology and Aging*.

**Crawford, J.L.**, Ciampa, C.J., Cowan, J.L., Adornato, A.A., O'Malley, K.E., & Berry, A.S. (invited revision). Relationships between objective and subjective assessments of cognition and their association with complex mental activity participation across the adult life span. *Journal of Gerontology: Psychological Sciences*.

### **Manuscripts In Prep**

**Crawford, J.L.**, Adornato, A., Matulonis, J., Hooker, J.M., Chex, X., & Berry, A.S. Influence of tau pathology and anxiety and depressive symptoms on metamemory in cognitively normal older adults.

**Crawford, J.L.**, Brough, R.E., Eisenstein, S.A., Peelle, J.E., & Braver, T.S. Dopamine D2-receptors are associated with experimental and daily life measures of cognitive effort.

**Crawford, J.L.**, English, T., & Braver, T.S. Within- and between-person associations of daily life affect and mentally demanding activity participation in younger and older adults.

### **Talks**

**Crawford, J.L.** (2023). Neural mechanisms of cognitive effort-based decision-making: a multimethod approach. Cognitive Neuroscience Society Conference Data Blitz, San Francisco, CA.

**Crawford, J.L.** (2022). Aging and the costs of cognitive effort. Aging Well Lab, UT Dallas.

**Crawford, J.L.** & Braver, T.S. (2021). Domain general cognitive motivation and economic decision-making: A registered report. A Bunch of Control Datablitzes (ABCD) (virtual).

**Crawford, J.L.** & Braver, T.S. (2020). Aging and the costs of cognitive effort. Scientific Research Network on Decision Neuroscience & Aging Conference, Honolulu, HI.

### Local

**Crawford, J.L.** (2024). Influence of Alzheimer's disease pathology and anxiety and depressive symptoms on memory and metamemory in older adults. Postdoctoral Neuroscience Research Symposium, Brandeis.

**Crawford, J.L.** (2023). Aging and the costs of cognitive effort. Postdoctoral Neuroscience Research Symposium, Brandeis.

**Crawford, J.L.** & Braver, T.S. (2022). Does the cost of cognitive effort differ among younger and older adults? A multimethod approach. Cognitive, Computational, and Systems Neuroscience Annual Retreat.

**Crawford, J.L.**, English, T. & Braver, T.S. (2022). Examining cognitive effort costs across experimental and daily life indices in younger and older adults. Washington University Aging & Development Brown Bag.

### **Poster Presentations**

**Crawford, J.L.**, Adornato, A., Matulonis, J., Hooker, J.M., & Berry, A.S. (2024). Influence of tau pathology and anxiety and depressive symptoms on metamemory in cognitively normal older adults. Alzheimer's Association International Conference, Philadelphia, PA.

Wei, M., Etzel, J.A., **Crawford, J.L.**, English, T., Thompson, R.J., & Braver, T.S. (2024). Dissociable effects of age and major depressive disorder on neural mechanisms of cognitive effort-based decision-making. Society for the Science of Motivation Annual Meeting, San Francisco, CA.

Wei, M., Etzel, J.A., **Crawford, J.L.**, Thompson, R.J., English, T., & Braver, T.S. (2024). Neural correlates of reward evaluation in relation to Major Depressive Disorder. Anxiety and Depression Association of America Annual Conference, Boston, MA.

**Crawford, J.L.**, Brough, R.E., Eisenstein, S.A., English, T., Peelle, J.E., & Braver, T.S. (2023). Does the cost of cognitive effort differ among younger and older adults? A multimethod approach. Dallas Aging & Cognition Conference, Dallas, TX.

**Crawford, J.L.**, Brough, R.E., Eisenstein, S.A., Peelle, J.E., & Braver, T.S. (2023). Neural mechanisms of cognitive effort-based decision-making: a multimethod approach. Cognitive Neuroscience Society Conference, San Francisco, CA.

Castrellon, J.J., **Crawford, J.L.**, Hsu, M., & Samanez-Larkin, G.R. (2022). Individual differences in extrastriatal D2-like receptors shape strategic social learning. Society for Neuroeconomics Annual Meeting, Arlington, VA.

**Crawford, J.L.**, English, T. & Braver, T.S. (2022). Effects of gain and loss incentive framing on cognitive effort-based decision-making in younger and older adults: A multimethod approach. Cognitive Aging Conference, Atlanta, GA.

**Crawford, J.L.**, English, T. & Braver, T.S. (2021). Combining experimental and daily life sampling approaches in aging research: opportunities and challenges. Society for Ambulatory Assessment Conference (virtual).

**Crawford, J.L.**, Yee, D.M., Lamichhane, B., Di Rosa, E., & Braver, T.S. (2020). Neural Mechanisms of Motivated Cognitive Control in Older Adults. Organization for Human Brain Mapping Conference (virtual).

Moore, I.L., Fields, E.C., **Crawford, J.L.**, Paige, L.E., Cassidy, B.S., & Gutchess, A. (2020). Attentional Prioritization of Negative Appearance-Behavior Cues in Impression Formation. Cognitive Neuroscience Society Conference, Boston, MA (virtual).

**Crawford, J.L.**, Yee, D.M., & Braver, T.S. (2019). Age-related changes in motivational integration involving socio-emotional incentives. Dallas Aging & Cognition Conference, Dallas, TX.

Johnson, C.P., Castrellon, J.J., **Crawford, J.L.**, & Samanez-Larkin, G.R. (2019). I like it like that: reward discounting and appetitive responses to amphetamine in a drug naïve sample of healthy adults. Interdisciplinary Symposium on Decision Neuroscience, Durham NC.

Juarez, E.J., Castrellon, J.J., **Crawford, J.L.**, Green, M.A., McAllister, G.A., Seaman, K.L., Smith, C.T., Dang, L.C., Zald, D.H., & Samanez-Larkin, G.R. (2018). Reliability of the correlative triad among aging, dopamine, and cognition. Cognitive Neuroscience Society Conference, Boston, MA & Cognitive Aging Conference, Atlanta, GA.

**Crawford, J.L.**, Seaman, K.L., Vijay, A., Matuskey, D., Morris, E.D., & Samanez-Larkin, G.R. (2017). Effects of age on extrastriatal dopamine D2 receptor availability are overestimated without partial volume correction. Dallas Aging and Cognition Conference, Dallas, TX & Cognitive Neuroscience Society Conference, San Francisco, CA.

McAllister, G.A., Castrellon, J.J., Seaman, K.L., **Crawford, J.L.**, Blow, T., Smith, C.T., Dang, L.C., Hsu, M., Zald, D.H., & Samanez-Larkin, G.R. (2017). Individual differences in dopamine receptor availability are not associated with preferences for time, probability, or effort across adulthood. Society for Neuroeconomics Annual Meeting, Toronto, Canada.

Zhang, Z., Saez, I., **Crawford, J.L.**, Seaman, K.L., Samanez-Larkin, G.R., Hsu, M., & Kayser, A. (2017). Dopamine, prefrontal cortex, and strategic learning. Society for Neuroscience Annual Meeting, Washington D.C.

Vijay, A., **Crawford, J.L.**, Seaman, K.L., Morris, E.D., & Samanez-Larkin, G.R. (2016). Decreased extrastriatal dopamine D2 receptor availability over human adulthood using [11C]-FLB457. International Symposium on Functional NeuroReceptor Mapping of the Living Brain, Boston, MA.

**Crawford, J.L.**, Paige, L.E., Cassidy, B.S., & Gutchess, A.H. (2015). Facing the facts: Assessing the role of face-behavior incongruities in social cognition through the modulation of the N400. Social and Affective Neuroscience Society Conference, Boston, MA.

### Teaching Experience

Teaching Assistant, Psych 3604: Cognitive Neuroscience (WUSTL) Fall 2020, Spring 2021  
*Introductory survey course on cognitive neuroscience for undergraduate students*  
Lectures prepared: Motivation & Decision-Making; Executive Function; Cognitive Neuroscience of Aging

Guest Lecturer, Psych 121B: Alzheimer's Disease Resilience and Risk Factors (Brandeis) Fall 2024  
*Advanced seminar course on emerging topics in Alzheimer's disease research*  
Lecture prepared: Understanding Alzheimer's Disease Through the Lens of Daily Life

### Mentoring (\* denotes mentee who received external research support)

#### Washington University

Casey Mason [Undergraduate] 2018-2019\*  
Jadyn Park [Undergraduate] 2018-2020\*  
Jada Smith [Undergraduate] 2018-2021\*  
Vivian Gao [Undergraduate] 2019-2022  
Janelli Rodriguez [Undergraduate] 2019-2021\*  
Angela Gormley [Undergraduate] 2020-2022

#### Brandeis University

Elizabeth Marsh [PhD rotation student] 2023  
Veronica Koralewski [Post-bac research assistant] 2024-present

### Departmental & Community Service

Brandeis Aging Journal Club Organizer	2023-present
Psychological & Brain Sciences (PBS) Aging Search Committee	2021-2022
Project SHORT (mentor)	2020-present
Psychology Graduate Student Association (PGSA) Diversity Committee	2020-2022
PBS Diversity, Equity, and Inclusion Committee (student rep)	2020-2021
PBS fMRI Journal Club (co-organizer)	2018-2022
PGSA Wellness Committee	2018-2019

## **Reviewing**

*Affective Science*

*Cell Reports*

*Cognitive, Affective, and Behavioral Neuroscience*

*Cognitive Research: Principles and Implications*

*Current Biology*

*Journal of Gerontology: Psychological Sciences*

*Motivation & Emotion*

*Neurobiology of Aging*

*Psychology and Aging*

*Scientific Reports*

## **Professional Memberships**

Alzheimer's Association International Society to Advance Alzheimer's Research and Treatment (ISTAART)

Cognitive Neuroscience Society

Gerontological Society of America

Organization for Human Brain Mapping

Society for Ambulatory Assessment

## **Additional Training**

Intensive Longitudinal Methods Workshop 2022

Aging & Decision Neuroscience Harmonization Workshop, SRNDNA 2019

Cognitive, Computational, and Systems Neuroscience Training Pathway 2017-2019

## **Other Skills**

**Programming:** R, Matlab, bash/tcsh

**Software:** Adobe Creative Suite, AFNI, E-prime, Inquisit Lab, PMOD, Psychtoolbox, SPM (PET)