

Kenneth A. Amaya

Department of Psychological and Brain Sciences, Dartmouth College
6207 Moore Hall, Hanover, New Hampshire 03755
kenneth.a.amaya.gr@dartmouth.edu
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Education:

- 2016- Dartmouth College, Hanover, New Hampshire
Ph.D. Candidate
Department of Psychological and Brain Sciences, Behavioral Neuroscience
Advisor: Dr. Kyle S. Smith
- 2015 Dartmouth College, Hanover, New Hampshire
B.A., Neuroscience with Honors
Thesis Advisors: Dr. Kyle S. Smith, Dr. David J. Bucci

Research Experience:

- 2016- Ph.D. Candidate, Department of Psychological and Brain Sciences,
Dartmouth College; Dr. Kyle Smith
- 2014-2015 Undergraduate Research Assistant, Psychological and Brain Sciences
Dartmouth College; Dr. Kyle Smith

Fellowships, Honors, and Awards:

- 2019 Travel Award, Neukom Institute for Computational Science, Dartmouth College
- 2019 Diversity Specialized Predoctoral to Postdoctoral Advancement in Neuroscience
(F99/K00) Award, National Institute of Health
- 2019 AAAS/Science Program for Excellence in Science Awardee
- 2018 Neuroscience Scholars Program Associate, Society for Neuroscience
- 2018 Dept. of Psychological and Brain Sciences Travel Fund Award, Dartmouth College
- 2018 Student Support Fund Award, Graduate Student Council, Dartmouth College
- 2017 Graduate Alumni Research Award, Dartmouth College
- 2016 Graduate Research Fellowship, National Science Foundation
- 2015 William B. Nickerson 1964 Psychological and Brain Sciences Prize, Dartmouth College
- 2015 Honors in Neuroscience, Dartmouth College
- 2014 David C. Hodgson Undergraduate Research Award, Dartmouth College

Research Support:

Current Support

National Institute of Neurological Disorders and Stroke (F99NS115270)
Diversity Specialized Predoctoral to Postdoctoral Advancement in Neuroscience Award
Activity dynamics in central amygdala during habit formation
2019 – 2025; \$400,000 (Principal Investigator)

Previous Support

National Science Foundation (NSF GRFP DGE-1313911)
Graduate Research Fellowship Program
2016 – 2019; \$100,000 (Principal Investigator)

Publications:

Amaya, K. A.*, Stott, J. J.*, Smith, K. S. (in press). Sign-tracking behavior is sensitive to outcome devaluation in a devaluation context-dependent manner: Implications for analyzing habitual behavior. *Learning and Memory*. *Authors contributed equally

Amaya, K. A., Smith, K. S. (2018). Neurobiology of Habit Formation. *Current Opinion in Behavioral Sciences*. 20: 145-152.

Presentations:

- 2018 Effect of inactivating nigrostriatal projections on sensitivity to outcome devaluation during sign tracking behavior.
Kenneth A. Amaya, William S. Tackett, Shawn F. Ohazuruike, Kyle S. Smith. *Poster*. Society for Neuroscience Annual Meeting, San Diego, CA.
- 2018 Effect of inactivating nigrostriatal projections on sensitivity to outcome devaluation during sign tracking behavior.
Kenneth A. Amaya, William S. Tackett, Shawn F. Ohazuruike, Kyle S. Smith. *Poster*. Diversity Poster Session, Society for Neuroscience Annual Meeting, San Diego, CA.
- 2018 Amygdalar Substrates of Habit Formation. *Invited Talk*.
Bio-behavioral Brown Bag Series, Dartmouth College, Hanover, NH.
- 2018 The Role of Nigrostriatal Dopamine in the Outcome Insensitivity of Sign-Tracking. William S. Tackett, **Kenneth A. Amaya**, and Kyle S. Smith. *Poster*.
Psychological and Brain Sciences Department Thesis Poster Session, Dartmouth College, Hanover, NH

- 2018 Role of dorsolateral striatal cholinergic interneurons in behavioral response to changes in action-outcome contingencies.
Kenneth A. Amaya and Kyle. S. Smith. *Poster*.
 International Conference on Learning and Memory, Huntington Beach, CA
- 2018 Role of dorsolateral striatal cholinergic interneurons in behavioral response to changes in action-outcome contingencies.
Kenneth A. Amaya and Kyle. S. Smith. *Poster*.
 Neuroscience Day, Dartmouth College, Hanover, NH
- 2017 Effect of Chemogenetic Activation of Nigrostriatal Projections on the Acquisition and Reevaluation of Instrumental Contingencies.
 Oren F. Wilcox, **Kenneth A. Amaya**, and Kyle S. Smith. *Poster*.
 Psychological and Brain Sciences Department Thesis Poster Session, Dartmouth College, Hanover, NH
- 2017 Role of dorsolateral striatal cholinergic interneurons in encoding and responding to changes in action outcome contingencies. *Invited Talk*.
 Bio-behavioral Brown Bag Series, Dartmouth College, Hanover, NH
- 2015 Effect of Optogenetic Stimulation of Cholinergic Interneurons on Habit Performance.
Kenneth A. Amaya and Kyle S. Smith. *Poster*.
 Presidential Thesis Poster Session, Dartmouth College, Hanover, NH
- 2015 Effect of Optogenetic Stimulation of Cholinergic Interneurons on Habit Performance.
Kenneth A. Amaya and Kyle S. Smith. *Poster*.
 Psychological and Brain Sciences Department Thesis Poster Session, Dartmouth College, Hanover, NH

Teaching, Mentorship

- 2018 Spring Psyc65 Systems Neuroscience TA – Dr. Matthijs van der Meer
- 2018 Fall Psyc6 Introduction to Neuroscience TA – Dr. Catherine Cramer
 Lectures Given: Emotion; Learning and Memory
- 2019 Winter Psyc65 Systems Neuroscience TA – Dr. Kyle S. Smith
 Lecture Given: Visual System III (V1 and beyond)
- 2019 Summer Psyc50.08 Neurobiology of Learning and Memory – Dr. Shawn Winters
 Lecture Given: Value-based Decision Making
- 2019 Fall Psyc6 Introduction to Neuroscience TA – Dr. Catherine Cramer
 Lectures Given: Chemical Senses; Learning and Memory

Undergraduate Students Mentored

Honors Thesis: Oren Wilcox '17 William Tackett '18

Sophomore Science Scholars: Shawn Ohazuruike '20, Jensen Palmer '21

Presidential Scholar: Jensen Palmer '21

EE Just Scholar: Shawn Ohazuruike '20

Research Assistant: Kendall Raymond '21 Zipporah Abraham-Paiss '23

Professional Memberships, Outreach, Service:

2019-	American Association for the Advancement of Science
2019-	Graduate Representative, President's Diversity Council, Office of the President Philip J. Hanlon, Dartmouth College
2018-2019	Co-Chair, Building Inclusivity for the Advancement of Science, Department of Psychological and Brain Sciences, Dartmouth College
2018-2019	Graduate Chair, Inclusivity, Diversity, and Climate Committee, Department of Psychological and Brain Sciences, Dartmouth College
2018-	Society for Advancement of Chicanos/Hispanics and Native Americans in Science
2018-	Letters to a Pre-Scientist
2018	Worcester Polytechnic Institute NSF GRFP Leadership Program
2017-	Upper Valley Brain Bee Volunteer, Dartmouth College
2016-	Society for Neuroscience
2015-	American Indian Science and Engineering Society
2014	Pre-Health Peer Advising, Dartmouth College
2012-2015	Academic Undergraduate Advisor, Dartmouth College