

Brian Katz

Postdoctoral Fellow
Vermont Center on Behavior and Health
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EDUCATION

West Virginia University (2016 – 2021)

Doctoral Student, Behavior Analysis

GPA: 4.0

Master's Thesis: An Analysis of the Extinction-Induced Response Burst

Doctoral Dissertation: An Analysis of Coordinated Responding

Advisor: Kennon A. Lattal, PhD

Washington University in St. Louis (2011 – 2015)

B.A., Psychology with Minor in Philosophy-Neuroscience-Psychology

GPA: 3.57

Senior Honors Thesis: Is a Probabilistic Choice Really a Delayed Choice?

Discounting of Repeated Gambles

Advisor: Leonard Green, PhD

RESEARCH EXPERIENCE

Postdoctoral Fellow in the Department of Psychiatry, University of Vermont (July 2021 – Present)

Supervisor: Diann Gaalema, PhD

Tested the efficacy of providing financial incentives and/or case management to increase cardiac rehabilitation participation among Medicaid patients.

Graduate Research Assistant in Operant Research Laboratory, West Virginia University (August 2016 – June 2021)

Mentor: Kennon A. Lattal, PhD

Investigated whether individual sources and schedules of reinforcement can serve as discriminative stimuli in a conditional discrimination procedure.

Examined the repeatability of the extinction burst across repeated exposures to extinction, and how altering aspects of either baseline or the extinction procedure modulated the occurrence of the phenomenon.

Began follow-up experiments to assess how the type of transition to extinction influences the occurrence and magnitude of the extinction burst.

Investigated how the presence of conditioned reinforcers during extinction may influence the frequency and magnitude of the extinction burst.

Started additional investigations concerning how the schedule in effect during baseline sessions influences the occurrence and magnitude of the extinction burst.

Examined changes in time allocation upon transitions to extinction following different baseline schedules reinforcement to investigate differences in the time course of extinction as a function of baseline schedules of reinforcement.

Investigated patterns and controlling variables of coordinated responding between two individuals.

Examined patterns of competitive responding between two individuals.

Graduate Teaching Assistant in Experimental Analysis of Behavior, West Virginia University (August 2019 – December 2019; August 2020 – December 2020)
Supervisor: Karen Anderson, PhD and Kennon A. Lattal, PhD

Assessed how the presence and absence of conditioned reinforcers influenced the frequency and magnitude of resurgence.

Examined patterns of competitive responding between two individuals.

Graduate Teaching Assistant in Behavior Principles Laboratory, West Virginia University (January 2018 – July 2018)
Supervisor: Katie Kestner, PhD

Assessed if changes in reinforcer quality could induce resurgence.

Research Program Coordinator at Center for Learning and Health, Johns Hopkins University Department of Psychiatry, School of Medicine (June 2015 – June 2016)
Mentor: Ken Silverman, PhD

Investigated whether monetary incentives contingent upon HIV medication adherence can be used to promote and maintain healthy behavior in individuals with HIV.

Used specialized software to create precision teaching courses for current and future studies.

Undergraduate Research Assistant in Behavioral Economics Laboratory, Washington University in St. Louis (August 2013 – May 2015)
Mentor: Leonard Green, PhD

Investigated whether individuals discount as a function of delay or probability in repeated gambles scenarios.

Examined patterns of discounting of delayed probabilistic rewards in humans.

Examined patterns of discounting of delayed and probabilistic rewards in younger and older adults.

Examined discounting of delayed probabilistic rewards in pigeons using a concurrent chains procedure.

Summer Internship at Neurobehavioral Unit, Kennedy Krieger Institute (June – August 2013)
Advisor: Natalie Rolider, PhD, BCBA-D

Worked on a team of clinical and behavior data specialists for two patients with severe autism and intellectual disabilities. Assisted in data collection and administration of therapy utilizing various applied behavioral analysis techniques.

Summer Internship at Behavioral Management Clinic, Kennedy Krieger Institute (June – August 2013)

Advisor: Jennifer Cunningham, PhD

Observed treatment sessions in which a clinician trained and coached parents on how to best manage their children's maladaptive behavior.

Undergraduate Research Assistant in Cognitive Control and Psychopathology Laboratory, Washington University in St. Louis (January – May 2013)

Mentor: Todd Braver, PhD

Examined the effects of immediate liquid feedback on task performance to maximize monetary rewards. Specifically investigating whether, when compared to "neutral" liquids, "liked" liquids improve task performance or "disliked" liquids hinder task performance.

Summer Internship at Division of Behavioral Biology, Department of Psychiatry and Behavioral Sciences at Johns Hopkins Bayview (June – August 2012)

Mentor: Paul Soto, PhD

Examined the effects of nicotine and methylphenidate on cognitive performances in rhesus monkeys.

NIH Summer Internship Program in Biomedical Research, National Institute on Drug Abuse, Intramural Research Program, Molecular Neuropsychiatry Laboratory (June – August 2010)

Mentor: Jean Lud Cadet, M.D.

Examined changes in gene expression among the Egr and Nr4a groups of transcription factors due to prior exposure to the stimulant drug methamphetamine. These transcription factors are thought to be involved in long-term changes in the central nervous system that produce stimulant addiction.

NIH Summer Internship Program in Biomedical Research, National Institute on Drug Abuse, Intramural Research Program, Preclinical Pharmacology Laboratory (June – August 2009)

Mentor: Charles Schindler, PhD

Examined the potential of peroxisome proliferator-activated receptor agonists to serve as treatments for nicotine dependence by assessing their ability to reverse the behavioral effects of nicotine in animals. PPAR agonists are proteins that act at the cell nucleus to regulate transcription and ultimately gene expression.

PUBLICATIONS

Katz, B. R. & Lattal, K. A. (2021). What is an extinction burst?: A case study in the analysis of transitional behavior. *Journal of the Experimental Analysis of Behavior*. <https://doi.org/10.1002/jeab.642>

Katz, B. & Lattal, K. A. (2020). An experimental analysis of the extinction-induced response burst. *Journal of the Experimental Analysis of Behavior*, 114(1), 24–46. <https://doi.org/10.1002/jeab.611>

Subramaniam, S., Getty, C., Holtyn, A. F., Rodewald, A., **Katz, B.**, Jarvis, B. P., Leoutsakos, J., Fingerhood, M., & Silverman, K. (2019). Evaluation of a computer-

based HIV education program for adults living with HIV. *AIDS and Behavior*, 23(11), 3152–3164. <https://doi.org/10.1007/s10461-019-02474-z>

Soto, P., Dallery, J., Ator, N., **Katz, B.** (May, 2013). A critical examination of best dose analysis for determining cognitive-enhancing potential of drugs: Studies with rhesus monkeys and computer simulations. *Psychopharmacology*, 228(4), 611–622.

PRESENTATIONS

Katz, B. (2021, May). *Birds of a feather flock together: Analyses of coordinated responding*. Poster presented at the 47th Annual Association for Behavior Analysis International Convention, online.

Katz, B. (2020, May). *It takes two to tango: Analyses of social behavior*. Symposium chaired at the 46th Annual Association for Behavior Analysis International Convention, online.

Katz, B. & Lattal, K. A. (2020, May). *Slow and steady wins the race: How competition contingencies influence behavior*. Individual symposium presentation delivered at the 46th Annual Association for Behavior Analysis International Convention, online.

Katz, B. (2019, May). *PDS: Careers in applied behavior analysis beyond autism*. Professional Development Symposium chaired at the 45th Annual Association for Behavior Analysis International Convention, Chicago, IL.

Katz, B. (2019, May). *Behavior during extinction: More than a frictionless vacuum*. Symposium chaired at the 45th Annual Association for Behavior Analysis International Convention, Chicago, IL.

Katz, B. & Lattal, K. A. (2019, May). *Extinction of time allocation*. Individual symposium presentation delivered at the 45th Annual Association for Behavior Analysis International Convention, Chicago, IL.

Katz, B., & Lattal, K. A. (2018, October). *Changes in time allocation throughout extinction*. Poster presented at the 2018 annual meeting of the Southeastern Association for Behavior Analysis, Chattanooga, TN.

Katz, B. (2018, May). *Extinction: The devil is in the details*. Symposium chaired at the 44th Annual Association for Behavior Analysis International Convention, San Diego, CA.

Katz, B. & Lattal, K. A. (2018, May). *An analysis of the extinction-induced response burst*. Individual symposium presentation at the 44th Annual Association for Behavior Analysis International Convention, San Diego, CA.

Eichstedt, K., **Katz, B.**, & Lattal, K. A. (2018, May). *Imitation in Pigeons*. Poster presented at the 44th Annual Association for Behavior Analysis International Convention, San Diego, CA.

Eichstedt, K., **Katz, B.**, & Lattal, K. A. (2018, April). *Imitation in Pigeons*. Poster presented at the 2018 West Virginia University Spring Undergraduate Capstone Poster Session.

- Katz, B.**, & Lattal, K. A. (2017, October). *An analysis of the extinction-induced response burst*. Poster presented at the 2017 annual meeting of the Southeastern Association for Behavior Analysis, Savannah, GA.
- Katz, B.**, Nighbor, T., Wood, B., & Lattal, K. A. (2017, May). *Sources of reinforcement as discriminative stimuli*. Poster presented at the 43rd Annual Association for Behavior Analysis International Convention, Denver, CO.
- Silverman, K., Rodewald, A., Getty, C., **Katz, B.**, Holtyn, A. F., Jarvis, B., Subramaniam, S. (2017, May). *Incentives for suppression of viral load in people living with HIV: Interim results*. Individual symposium presentation at the 43rd Annual Association for Behavior Analysis International Convention, Denver, CO.
- Rodewald, A., Getty, C., **Katz, B.**, Holtyn, A. F., Jarvis, B., Subramaniam, S., & Silverman, K. (2017, May). *Evaluation of a computer-based training course on antiretroviral medication for people living with HIV*. Individual symposium presentation at the 43rd Annual Association for Behavior Analysis International Convention, Denver, CO.
- Wood, B., **Katz, B.**, Nighbor, T., & Lattal, K. A. (2017, April). *Are Pigeons Self-Aware? Pigeons Can Identify Sources of Reinforcement*. Poster presented at the 2017 West Virginia University Undergraduate Spring Symposium.
- Katz, B.**, Rodewald, A., Gay, A., Holtyn, A. F., Jarvis, B., Silverman, K. (2016, May). *Development and evaluation of a computer-based training course on antiretroviral medication adherence for people living with HIV*. Poster presented at the 42nd Annual Association for Behavior Analysis Convention, Chicago, IL.
- Vanderveldt, A., **Katz, B.**, Green, L., & Rachlin, H. (2015, May). *Is a probabilistic choice really a delayed choice? Discounting of repeated gambles*. Poster presented at the 38th Annual Meeting of the Society for the Quantitative Analysis of Behavior, San Antonio, TX.
- Katz, B.**, Vanderveldt, A., Green, L. (2015, April). *Is a probabilistic choice really a delayed choice? Discounting of repeated gambles*. Poster presented at the Spring 2015 Washington University in St. Louis Undergraduate Research Symposium.
- Katz, B.**, Vanderveldt, A., Green, L. (2014, October). *Is a probabilistic choice really a delayed choice? Discounting of repeated gambles*. Poster presented at the Fall 2014 Washington University in St. Louis Undergraduate Research Symposium.
- McCoy, M. T., **Katz, B.**, Poudel, M., Newman, J., Jayanthi, S., Saint-Preux, F., Ladenheim, B., Krasnova, I. N., Cadet, J. L. (2013, November). *Transcriptional effects of a two-injection model of methamphetamine administration on immediate early gene expression in the nucleus accumbens*. Presented at the Annual Meeting of the Society for Neuroscience.
- Jayanthi, S., Saint-Preux, F. **Katz, B.**, Poudel, M., Newman, J., McCoy, M. T., Ladenheim, B., Krasnova, I. N., Brannock, C., Lehrmann, E., Becker, K. G., Cadet, J. L. (2013, November). *A single methamphetamine injection produces long-lasting activation in the endocrine stress system in the nucleus accumbens*. Presented at the Annual Meeting of the Society for Neuroscience.

P. Soto, **B. Katz** (2013, May). *Best Dose Analysis: Worst Case Scenario*. Presented at the 39th Annual Association for Behavior Analysis International Convention, Minneapolis, MN.

Katz, B., Krug, M. K., Oksanen, K. M., Braver, T. S. (2013, April). *Does Immediate Liquid Feedback Help Improve Task Performance to Maximize Monetary Reward?* Poster presented at the Spring 2013 Washington University in St. Louis Undergraduate Research Symposium.

TEACHING AND MENTORSHIP

Psychology 531: Experimental Analysis of Behavior Lab, Psychology Department, West Virginia University (August 2019 – December 2019; August 2020 – December 2020).

Psychology 331: History and Systems in Psychology, Psychology Department, West Virginia University (May 2020 – June 2020).

Psychology 424: Learning and Behavior Theory, Psychology Department, West Virginia University (January 2020 – May 2020).

Psychology 304; Critical Thinking in Psychology, Psychology Department, West Virginia University (May 2019 – June 2019; January 2021 – May 2021).

Psychology 302: Behavior Principles Lab, Psychology Department, West Virginia University (August 2017 – May 2019; August 2020 – May 2021).

Psychology 101: Introduction to Psychology, Psychology Department, West Virginia University (August 2016 – June 2017).

Supervised and assisted with data collection of a West Virginia University undergraduate capstone project (Fall 2017 – Spring 2018).

COMMITTEES AND SERVICE

West Virginia University Psychology Department Behavior Analysis Training Committee, May 2019 – May 2020

West Virginia University Student Delegate to ABAI, October 2018 – October 2019

West Virginia University Psychology Department Wellness Committee, May 2017 – May 2019

AWARDS

Don Hake Award for an Outstanding Graduate Student Career – West Virginia University, 2021

Office of the Provost's Doctoral Dissertation Research Award – West Virginia University, 2020

Department of Psychology Graduate Student Research Fund Award – West Virginia University Department of Psychology, 2018

Summer Undergraduate Research Award – Washington University in St. Louis Office of Undergraduate Research, 2014

REFERENCES

Kennon A. Lattal, PhD

Professor of Psychology
Psychology Department, West Virginia University
andy.lattal@mail.wvu.edu
304-293-1705

Kenneth Silverman, PhD

Professor of Psychiatry and Behavioral Sciences
Center for Learning and Health, Johns Hopkins University, School of Medicine
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Leonard Green, PhD

Professor of Psychology
Psychology Department, Washington University in St. Louis
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