



Southeastern Association
for
Behavior Analysis

27th Annual Conference
Asheville, North Carolina
at Four Points by Sheraton
November 4-6, 2010

Thursday 11/4/2010 in the Four Points Ballroom

7-10 pm Registration and Cash Bar

Friday 11/5/2010 in the Four Points Ballroom

8:00 am Registration & Continental Breakfast

8:45 am Welcome by the President
Kate Saunders from University of Kansas

9:00 am

**Reinforcement processes in individuals diagnosed with Attention Deficit
Hyperactivity Disorder: Implications for diagnosis and treatment**

Scott Kollins, Duke University
Chair: Jordan Bailey, Auburn University

Individuals diagnosed with Attention-Deficit Hyperactivity Disorder (ADHD) have been described as having aberrant sensitivity to reinforcement. Conceptualizing this common psychiatric disorder in this way has implications for understanding the neurobiological and behavioral basis of ADHD, its treatment, and common impairments associated with it. This talk will review behavioral research assessing the ways in which reinforcement processes have been implicated in the pathogenesis of ADHD, with an emphasis on how behavior analytic methods can provide a bridge to both neuroscience and genetics. I will also review recent work in which behavioral pharmacological methods have been used to characterize the reinforcing effects of stimulant drugs and smoking and how behavior analytic concepts may be useful to refine treatments for individuals with ADHD

10:00 am

**Quantitative Analyses of Behavior: Tools for Elucidating Behavioral
Mechanisms of Drug Action**

Raymond Pitts, University of North Carolina Wilmington
Chair: David Maguire, University of Florida

In their seminal book Behavioral Pharmacology, Thompson and Schuster (1968) formally introduced the concept of behavioral mechanisms of drug action. In this view, drugs produce their behavioral effects by altering the ways in which environmental variables control behavior; that is, drugs alter functional relations between environment and behavior. Although it has been shown repeatedly that environmental factors can dramatically alter the behavioral effects of drugs, unambiguous demonstrations of specific behavioral mechanisms have been hard to come by. With recent developments in the quantitative modeling of behavior, however, we now may have the tools necessary for elucidating behavioral mechanisms of drug action. By providing relatively precise specifications of relations between environmental variables and their behavioral effects, quantitative models are well suited to this challenging task. In this

SEABA

The Southeastern Association for Behavior Analysis, founded in 1984, is a regional affiliate of the Association for Behavior Analysis International (ABAI). SEABA seeks to promote scholarly discourse within and about Behavior Analysis. SEABA membership and convention registration are open to anyone with a scholarly interest in Behavior Analysis.

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42. Human Escape/Avoidance Learning: Development of a Virtual Shuttle-Box
M. Forloines, Q. Battle, Z. Kilday, C. Clements and K. Bodily
Georgia Southern University
43. The Effects of Housing Conditions and Methylphenidate on Two Response Inhibition Tasks
Jonathan Schiro, Jade Hill, Pablo Covarrubias, Joel Terry & Federico Sanabria,
Arizona State University, Universidad de Guadalajara
44. Effects of Discriminable Shifts in Reinforcer Magnitude on Induced Attack In Pigeons
Y. Hayashi, D. Williams, A.T. Brewer, G.J. Madden, S.C. Fowler and K.J. Saunders, *University of Kansas*
45. Resistance to Extinction during a Multiple Variable-Ratio, Yoked-Interval Schedule
Andrew R Craig, Toshikazu Kuroda and Kennon A. Lattal
West Virginia University
46. Operant Responding as Bouts of Behavior: The Pigeon Problem
Tracy G. Taylor¹, Richard L. Shull² and Raymond C Pitts¹,
¹*University of North Carolina Wilmington*
²*University of North Carolina Greensboro*
47. Dynamics of Operant Behavior: Responding by Pigeons under a Cyclic Random-Interval Schedule with a Ramp
Brian S. Coleman¹, Tracy G. Taylor¹, Raymond C Pitts¹, Christine E. Hughes¹ and M. Jackson Marr², ¹*University of North Carolina Wilmington* ²*Georgia Institute of Technology*
48. State-Dependent Learning in Pigeons
Adam E. Fox and Elizabeth G. E. Kyonka
West Virginia University
49. Establishing Baseline Demand Curves: How Many FRs are Needed?
Ayesha Revri, Brian S. Coleman, Bryan Messina, Joshua Richmond and Wendy Donlin
University of North Carolina Wilmington
50. Human Social Interaction as a Reinforcer for Domestic Dogs
Erica N. Feuerbacher and Clive D. L. Wynne
University of Florida
51. Accuracy and Reliability Testing of the Fitbit© Computerized Pedometer for Contingency Management Interventions
David King, Brian S. Coleman, Carole Van Camp and Wendy Donlin
University of North Carolina Wilmington
52. Analysis of Family Social Behavior
Ana Rita Coutinho Xavier Naves^{1,2} and Laercia Abreu Vasconcelos¹,
¹*Universidade de Brasília* ²*University of North Texas*

talk, I will a) describe the notion of behavioral mechanisms of drug action, b) discuss the use of quantitative methods to elucidate them, and c) describe some of the work in our laboratory using quantitative analysis to characterize effects of drugs on choice and preference.

11:00 am **Break**

11:15 am

The Role of Problem Solving in Teaching Complicated Verbal Repertoires

James Carr, Auburn University

Chair: Shana Bailey, West Virginia University

Language training curricula for individuals with developmental disabilities often include programs that teach expressive or intraverbal categorization in which learner is taught to answer questions such as “What toys do you have at home?” Although such repertoires are undoubtedly important, some instructional approaches instill these repertoires as rote intraverbal chains. However, it is apparent that many sophisticated learners answer such categorical questions not through rote learning but by first engaging in other (often covert) problem solving responses. In this presentation, I will share the results of two investigations in which preschool-aged children were successfully taught verbal and visual imagining strategies to answer questions about category membership. The implications of these studies for teaching language to individuals with developmental disabilities will be discussed and some recommendations toward that end will be provided.

12:15 pm **Lunch**

2:00 pm

Boys Town: Waldon III for Troubled Out-of-Home Adolescents?

Patrick Friman, Boys Town

Chair: Shelley Moore, University of North Carolina Wilmington

Boys Town is arguably the best known residential care program for troubled out-of-home youth in the United States. It has been in existence since 1917 and was started by the world famous Father Flanagan. Since its inception, it has gone through five executive directors and several program changes. The most substantive of these occurred in the mid 1970’s when the program changed from what was essentially an orphanage to a world class behavior analytic community. The architects of the change were notable behavioral analysts such as Montrose Wolf and Elery Phillips. This presentation will describe the program, the nature and the rationale for the changes implemented by Dr.’s Wolf and Phillips, a description of the resident youth, and a discussion of multiple program outcomes derived from evaluation research reflecting program success.

3:00 pm

Behavioral Economics and Government Policy

Steven R. Hursh, Institutes for Behavior Resources and Johns Hopkins
University School of Medicine
Chair: Bryan Messina, University of North Carolina Wilmington

A fundamental tenant of behavior analysis is that operant behavior is strengthened by its consequences and that the strength of a reinforcer determines the strength of the behavior it supports. Behavioral economics provides a framework for understanding and measuring reinforcer strength, and by implication, the strength of the behavior it supports. At the same time, government policy is often directed toward creating conditions that encourage changes in the strength of certain behaviors, such as substance abuse, unhealthy dietary habits, cigarette smoking, wasteful use of energy resources, and excessive use of hydrocarbon products. Behavioral economic concepts provide a link between what we know about behavioral strength and how government policy might alter that strength. Fundamental to that bridge is the demand curve, which defines how reinforcer consumption varies as a function of the requirements to obtain the reinforcer (price). A model is now available that describes the shape of such curves and provides a single parameter that scales the sensitivity of consumption to cost. Coupled with this model is a related model that effectively categorizes and quantifies interactions between reinforcers - an economic foundation for choice. Together these tools provide an economic framework for translating the findings from laboratory and clinical research to governmental policy. Effective government policy can apply these concepts to alter community behavior by arranging various conditions that affect the cost and benefits of selected behaviors, through penalties, taxes, refunds, tax deductions, or opportunity costs. What is missing often are hard data defining the relationship between those costs and the changes in behavior sought by the regulation. Behavior analysis provides the empirical tools to define these relationships and behavioral economics provides the bridge between those data and the economic implications of regulatory initiatives.

4:00 pm Break

4:15 pm

Behavioral Momentum and the Persistence of Remembering

Amy Odum, Utah State University
Chair: August Holtyn, West Virginia University

Behavioral momentum theory maintains that response rate and resistance to change are two separable aspects of behavior. Empirically, response rate is governed by response-reinforcer contingencies, but resistance to change is determined by stimulus-reinforcer relations. Numerous studies have demonstrated the generality of these findings across species, human populations, and types of reinforcers. Most prior work has examined resistance to change in terms of the quantity of behavior (e.g., rate of response on simple schedules of

Intellectual Disabilities.

Stephen F. Walker, Timothy Vollmer and P. Raymond Joslyn
University of Florida

32. Iterated Prisoners' Dilemma Game and Metacontingencies with New Participants in Each New Session
Dyego de Carvalho Costa^{1,2} and Laercia Abreu Vasconcelos¹,
¹*Universidade de Brasilia, University of North Texas*²
33. Developing a Practical and Effective Method of Human Operant Reinforcement: A Preliminary Investigation
August F. Holtyn, Carlos Cancado, Mohammed Al-Hammouri and Michael Perone, *West Virginia University*
33. Bipolar Responding in Fixed-Temporal Intervals
Shannon Townley and William Palya
Jacksonville State University
34. Effects of Reinforcer Magnitude on Delay Discounting in Rats
William Reilly and Karen G. Anderson, *West Virginia University*
35. Effects of Reinforcer Magnitude on Response Acquisition with Unsignaled Delayed Reinforcement
Amy E. Dawson, Kaitlyn P. Brierley and Adam H. Doughty
College of Charleston
36. Effects of Reinforcer Magnitude on Response Acquisition with Delayed Reinforcement in Rats
Shana Bailey, William Reilly and Karen G. Anderson
West Virginia University
37. Examining the Performance of Spontaneously Hypertensive Rats (SHR) in a Temporal Discounting Procedure
Sherry Serdikoff, Daniel Peterson, Andrew Halsey, Curtis Bradley, Jessica Valacer, Jacob Truelove, Peter Lovaas, Sean O'Brien and Megan Arnold, *James Madison University*
38. Rapid Acquisition in Concurrent Chains: Effects of Morphine on Choice Controlled by Reinforcement Delay
Craig W Cummings¹, Christine E. Hughes², Thomas Little² and Raymond C Pitts², ¹*Auburn University*,
²*University of North Carolina Wilmington*
39. Effects of Fixed-Ratio Requirements on Delay Discounting in Rats.
Meagan E. Follett, Sally L. Huskinson and Karen G. Anderson,
West Virginia University
40. Effects of Food/Water Deprivation and Experience in a Delay-Discounting Procedure in Rats
Meghan C Burns, Elizabeth Watterson, Raymond C Pitts and Christine E. Hughes, *University of North Carolina Wilmington*
41. An Analysis of Response Strength in Pigeons: Interactions Between TimeOut Duration and Rate of Reinforcement
Amanda G. Rickard and Christine E. Hughes,
University of North Carolina Wilmington

17. A Comparison of Methods for Evaluating Descriptive Analyses
Ellen Brosh and Claire St. Peter Pipkin, *West Virginia University*
18. Interteaching and the Testing Effect: A Systematic Replication
Derek A. Pope, Peter G. Lovaas, Jacob Williams and Bryan K Saville
James Madison University
19. A Component Analysis of Interteaching: Should Lecture Precede or Follow
Pair Discussions?
Jacob Williams, Whitney Smiley and Tracy Zinn,
James Madison University
20. Effects of Acute and Chronic Cocaine on Key-Pecking in Pigeons
Maintained by Different Sources of Food Reinforcement.
David R. Maguire and Marc Branch, *University of Florida*
21. A Within-Subject Analysis of d-Amphetamine Exposure on Delay
Discounting in Rats
Jonathan M. Slezak, Christopher A. Krebs and Karen G. Anderson
West Virginia University
22. An Examination of the Effects of Amphetamine on Resistance-to-
Extinction Following Single-Schedule Training
Stephen Robertson, Curtis Bradley, Megan Arnold, Daniel Peterson,
Jacob Truelove, Jessica Valacer, Peter Lovaas, Sean W. O'Brien,
Derek A. Pope and Sherry L Serdikoff, *James Madison University*
23. Differential Effects on Learning by Four Calcium Channel Antagonists
Jordan Bailey and M. Christopher Newland, *Auburn University*
24. Nucleus Accumbens Dopamine Modulates Response Rate But Not
Response Timing in an Interval Timing Task
Allison N. Kurti and Matthew S. Matell, *University of Florida*
25. A Response-Bout Analysis of Wheel Running in Methylmercury Exposed
BALB/c Mice
Daniel Hoffman and M. Christopher Newland, *Auburn University*
26. Schedule Parameter Value and Tolerance to Cocaine Under Response-
Initiated Fixed-Time Schedules.
Anne Macaskill and Marc Branch, *University of Florida*
27. Differential Effects of d-amphetamine and Sulpiride on Temporal
Discrimination and Differentiation in BALB/c Mice.
Blake A. Hutsell and M. Christopher Newland, *Auburn University*
28. Effects of Nicotine on Ethanol-Associated Conditioned Reinforcer
Rachel Cassidy, Chirag Kulahalli and Jesse Dallery
University of Florida
29. Neuromotor and Learning Deficits Associated with Methylmercury
Exposure
Benjamin Campbell, Jordan Bailey and M. Christopher Newland
Auburn University
30. An Evaluation of Resetting and Nonresetting DRO Schedules
Sacha T. Pence and Claire St. Peter Pipkin, *West Virginia University*
31. The Role of Age and Gender: An Extension of Penile Plythesmograph
Based Arousal Assessments for Sex Offenders with

reinforcement). More recently, we have shown with delayed matching to sample that many of the findings regarding the quantity of behavior also apply to the quality of behavior. Specifically, accuracy is more persistent and rate of forgetting lower when conditional discrimination performance is more richly reinforced.

5:15 pm Business Meeting

8:00 pmto Poster Session & Social

12:00 am (Titles and Numbers included at end of program)

Saturday 11/6/2010 in the Four Points Ballroom

8:00 am Continental Breakfast

9:00 am

Writing Outside the Lines: Considerations and Data on Controlling Variables of Self-Editing

L. Kimberly Epting, *Elon University*

Chair: Whitney Smiley, *James Madison University*

Self-editing is a normal and frequent aspect of both spoken and written verbal behavior, yet it has not been a primary focus of study for many in behavior analysis. Moreover, although psycholinguists have developed empirical models of self-editing in speech, they have not given much attention to writing. The majority of work investigating written self-editing has been done in the field of composition. Research in psycholinguistics, composition, and behavior analysis provides foundations for our laboratory efforts to conceptualize and measure self-editing behavior during writing. These foundations will be briefly discussed along with the procedures we have been using to capture a wide variety of specific self-editing behaviors. I will also share some data we have gathered on historical variables and immediate antecedents relevant to the control of self-editing.

10:00 am

Choice, Perseveration, and Reinforcer Efficacy: Clues to a Behavioral Mechanism of an Executive Function?

M. Christopher Newland, *Auburn University*

Chair: Curtis Bradley, *James Madison University*

Exposure to some neurotoxic substances during nervous system development can have long-lasting, irreversible consequences that are subtle but highly significant. The detection of these effects in people as well as in some animal models sometimes draws from constructs such as executive function. Our research group has reported that developmental exposure to methylmercury yields a constellation of effects that includes behavioral rigidity and resistance

to change. Parallel studies of sensitivity to selected drugs and of reinforcement efficacy leads us to hypothesize that enhanced sensitivity to reinforcing stimuli and to dopamine are related to the perseveration that we observed. Such a mechanism points to therapeutic interventions that, when tested in our laboratory model, successfully broke up perseveration. In addition to helping us understand the behavioral effects of drugs and contaminants, the study of behavioral damage following chemical exposure may also yield insights into the organization and determinants of behavior.

11:00 am **Break**

11:15 am

Achieving Mainstream Relevance Through Teacher-Training Programs

Claire St. Peter Pipkin, West Virginia University

Chair: Allison Kurti, University of Florida

For behavior analysts to have wide-reaching social importance, more individuals need to come into contact with the value of our science and practice. Recently, Friman (2010) suggested that collaborations with other disciplines, such as medicine, may be a viable means of broadening our impact. I will argue that working with educational systems may be another way of achieving mainstream relevance. Specifically, training teachers to be behavior analysts could result in widespread adoption of effective behavioral practices, beyond the scope of what could be achieved through a consultative relationship alone. I will illustrate this point using West Virginia University's Behavior Analysis for Teachers program as an example. Along the way, I will suggest how teacher-training programs could share the advantages of integration of behavior analysis and medicine (as described by Friman) while addressing many concerns about the future of our field.

12:15 **Closing Ceremony**

Poster Presentations

1. Psychological Sciences at James Madison University
Sherry L Serdikoff, Tracy Zinn and Bryan K Saville
2. University of North Carolina Wilmington: Behavior Analysis Masters
Wendy Donlin, Christine E. Hughes, Mark Galizio, Carol Pilgrim,
Raymond C. Pitts and Carole Van Camp
3. Behavioral Neuroscience at West Virginia University
Miranda Reed and Hawley Montgomery-Downs
4. Behavior Analysis at Auburn University
James E. Carr, M. Christopher Newland, Linda A. LeBlanc and
Jennifer M. Gillis

5. Guided Skill Learning in Rats is Governed by Simultaneous Feature-Positive Discrimination Bias
Hannah Rapport, Thien-An Le and Alliston K. Reid, *Wofford College*
6. Instructional Control and Recombinative Generalization
Lidia Maria Marson Postalli and Deisy das Graças de Souza,
Universidade Federal de São Carlos National Institute of Science and Technology for Studies on Behavior, Cognition, and Teaching Brazil
7. A Parametric Analysis of the Olfactory Memory Span Procedure
L.B. Poerstel, M. Deal, R. Eure, L. Goldstein, A. Hawkey, K. Jacobs,
L. Lazarowski, T. Lefever, H. Ward, E. Watterson, K. Bruce and M.
Galizio, *University of North Carolina Wilmington*
8. Human Spatial Orientation Is Controlled By The Principal Axis of an Enclosure
Connie Clements¹, Taylor Gurley¹, Kent Bodily¹ and Bradley Sturz²,
¹*Georgia Southern University* ²*Armstrong Atlantic State University*
9. Performance Observed During First Session of DMTS Training Predicts Errors Observed One Year Later
Brian D Kangas, Meredith S. Berry and Marc Branch
University of Florida
10. Automated Olfactory Matching/Non-Matching-to-Sample in Rats
Tim Lefever, Mary Beth Pacewicz, L.Brooke. Poerstel, Andrew
Hawkey, Carrie Branch, Kate Bruce and Mark Galizio
University of North Carolina Wilmington
11. Introduction of a Procedure for Experimental Analyses of the Autoclitic in Nonhuman Animals
Toshikazu Kuroda and Kennon A. Lattal, *West Virginia University*
12. Successes and Failures to Reduce Stimulus Overselectivity in People With Autism
Michelle N. Hopkins, Nina L. Deese, C. Steven Terry and Adam H.
Doughty, *College of Charleston*
13. Using Equivalence Procedures and Class-Specific Reinforcers and Responses to Teach Math Relations to Typically Developing Children
Whitney E. Luffman, Matt Alcala, Minela Subasic, Morgan
Kemmeries, Ashley Blackwell and Carol Pilgrim
University of North Carolina Wilmington
14. Exploring Nonmatch-to-Sample in Rats Using Cross Modal Stimuli
Rachel Eure, Lucia Lazarowski, C. Berkey, Carrie Branch, A.
Gleason, Adam Goodman, A. Mack, Anthony McLean, Mark Galizio
and Kate Bruce, *University of North Carolina Wilmington*
15. Interteaching: The Impact of Lectures on Student Performance
Troy Cox, Kathy Wacks and Bryan K Saville
James Madison University
16. Interteaching and the Testing Effect: Do Post-Discussion Quizzes Increase the Efficacy of Interteaching?
Tonya Lambert¹ and Bryan K Saville²,
¹*Syracuse*, ²*James Madison University*