#505 Business Meeting

5/26/2009
7:30 a.m. – 8:00 a.m.
North 132 A

Behavior Analysis in Practice
Chair: Dorothea C. Lerman (University of Houston-Clear Lake)

Purpose: Annual meeting of Behavior Analysis in Practice, a new practitioner-oriented journal published by ABAI. Board members will discuss the progress of the new journal and plans for upcoming issues.

#506 Invited Presenter

5/26/2009
9:00 a.m. – 9:50 a.m.
West 301 AB
CSE
BACB CE Offered. CE Instructor: Richard Rakos,Ph.D.

Belief in Agency: Is it "Human Nature?"
Chair: Maria R. Ruiz (Rollins College)

RICHARD F. RAKOS (Cleveland State University)

Dr. Richard F. Rakos has been faculty member, graduate program director, department chair, associate dean, and university ombudsperson in his 30 years at Cleveland State University. In addition to publishing extensively on assertive behavior and behavioral self-management, he has examined a wide range of large-scale social phenomena through behavioral and cultural analyses. Targets of these analyses have included socialism in Eastern Europe as it tottered in the late 1980s; perestroika as an ambitious behavioral experiment by the Soviet Union in the early 1990s; corporate media and the promotion of government propaganda; contingencies shaping behavior in academia; conservative and liberal political ideologies in the US; and many issues related to the promise of more just societies. Dr. Rakos edited Behavior and Social Issues and its two predecessor journals for 11 years and has served as Consulting Editor for BSI for the past 14 years. He also co-chairs Behaviorists for Social Responsibility, is on the Editorial Board of Law and Human Behavior, twice served on the Editorial Board of The Behavior Analyst, and is a Fellow in the American Psychological Association (Division 25). In recent years, Dr. Rakos has turned his attention to examining, both conceptually and empirically, the apparently resilient human belief in free will and agency.

Abstract: In Western civilization's endless debate about free will, behavior analysts are "hard determinists" and "incompatibalists," contending human agency cannot exist in a world governed by scientific laws. Behaviorists interpret the widespread endorsement of the belief in agency in Western culture as a malleable product of "the literature of freedom" that developed in response to aversive social control schemes. An alternative possibility is that the belief in human agency is an evolved psychological mechanism (EPM). An EPM solves a specific problem in environmental adaptation; in the present case, effective responding in choice situations. From this perspective, I suggest the belief in agency is a motivating operation that is activated in situations presenting concurrent schedules of reinforcement; it increases choice behaviors and the potency of a "sense of autonomy," an emotion-like primary reinforcer contingently produced by effective choice behavior. Because the environment influences how an EPM is expressed, the belief in agency may be expressed differently in different cultures (e.g., "free will" in the West, "harmony" in the East). I present data regarding endorsement of free will and discuss anthropological, historical, physiological, medical, and psychological support for the agency belief as EPM. I suggest that evolutionary selection of the belief does

not compromise behavior analytic theory; in fact, an understanding of the belief in agency as part of "human nature" may enhance behavior analysts' ability to intervene in society to promote progressive social change.

#507 Paper Session

5/26/2009
9:00 a.m. – 9:50 a.m.
North 131 A
CSE

Community Interventions Paper Session 1
Chair: William B. Abernathy (Southeastern Louisiana University, Aubrey Daniels International)

Metacontingency: From Theory to Experimental Demonstration. (Experimental Analysis) GREGORY S. SMITH (University of Nevada, Reno), Ramona Houmanfar (University of Nevada, Reno)

Abstract: The concept of metacontingency has been developed in order to advance an analysis of cultural practices and, presumably, a science of cultural change and intervention. To date discussion surrounding the metacontingency has been largely theoretical in nature. Historically, conceptual developments lead to experimental observation and manipulation, which the present study attempted. By definition the smallest number of individuals who may participate in a metacontingency is two, thus the current study arranged conditions analog to organizational settings in which two participants (dyad) engaged in interlocking behavioral contingencies (psychological unit of analysis) and, at a higher level, a metacontingency (sociological unit of analysis). Data collected on measures related to dyad performance and participants' verbal behavior are discussed with respect to the relationship between interlocking behavioral contingencies and the associated aggregate product.

Walden Two Revisited. (Applied Behavior Analysis) WILLIAM B. ABERNATHY (Southeastern Louisiana University, Aubrey Daniels International)

Abstract: The presentation proposes that Skinner's utopian vision as described in Walden Two should be revisited by practitioners of applied behavior analysis. A brief history of utopian communities is presented. The high failure rate of traditional communes as well as Walden Two derivatives is discusssed. To counteract this problem it is recommended that Walden Two would be more successful if initiated in existing organizations that are already finaicially viable. Second, Walden Two was a socialist scheme. It is argued that free enterprise (but not necessarily capitalism) is an economic system more congruent with the principle of contingent reinforcement. Examples of free enterprise such as 'local exchange trading systems' are described. Third, the 'free rider' problem is a common concern in utopian thinking. Implementing free enterprise and performance management are suggested as solutions to this issue. Finally, recommendations are made regarding an improved administrative structure for Wadlen Two including removing line authority from executive management and employee ownership of the company.

#508 Invited Presenter

5/26/2009
9:00 a.m. - 9:50 a.m.
West 301 CD
TPC
BACB CE Offered. CE Instructor: Steven C. Hayes, Ph.D.

Values, Verbal Relations and Compassion: Facing Global Challenges Using Modern Behavioral Principles
Chair: Sam Leigland (Gonzaga University)

STEVEN C. HAYES (University of Nevada, Reno), Sam Leigland (Gonzaga University)

Dr. Steven C. Hayes is Nevada Foundation Professor at the Department of Psychology at the University of Nevada. An author of 32 books and over 400 scientific articles, his career has focused on an analysis of the nature of human language and cognition and the application of this to the understanding and alleviation of human suffering. Dr. Hayes has been President of Division 25 of the APA, of the American Association of Applied and Preventive Psychology and of the Association for Behavioral and Cognitive Therapy. He was the first Secretary-Treasurer of the Association for Psychological Science, which he helped form and has served a 5 year term on the National Advisory Council for Drug Abuse in the National Institutes of Health. In 1992 he was listed by the Institute for Scientific Information as the 30th "highest impact" psychologist in the world. His work has been recognized by the Exemplary Contributions to Basic Behavioral Research and Its Applications from Division 25 of APA, the Impact of Science on Application award from the Society for the Advancement of Behavior Analysis, and the Lifetime Achievement Award from the Association for Behavioral and Cognitive Therapy.

Abstract: Toward the end of his life B. F. Skinner became somewhat pessimistic about whether behavioral science suggested that human beings can or will act to save the world. In this talk I consider the reasons for that pessimism in light of modern developments in the analysis of human language and cognition. The key to our future as a human species is to link long and short term reinforcers for the individual to those for the group. I argue that we can indeed strengthen this linkage if we apply our knowledge about the features of human language that have been unearthed by modern behavior analysis. Empirically validated behavioral methods now exist to rein in the repertoire narrowing influences of modern human culture. In the same way that Skinner once claimed that behavior analysis is the "very field" of purpose we can now declare, and support scientifically, the idea that behavior analysis is becoming the very field of love, compassion, and community. It is these processes, treated as natural events, that are essential to our ability to face global challenges in the modern world.

#509 Symposium

5/26/2009
9:00 a.m. - 10:20 a.m.
North 124 B
AUT/DDA; Service Delivery
BACB CE Offered. CE Instructor: Rebecca Morgan, M.S., BCBA

In Proximity and Engaged, Now What? Taking the PLA-Check to the Next Level
Chair: Edward Hargroves III(DFW Center for Autism)
Discussant: Einar Ingvarsson (University of North Texas)

Abstract: As environmental arrangement becomes increasingly pivotal in evaluating treatment efficacy, systematic methods of assessing environments and client participation are needed. . Todd R. Risley and his students recognized this in the early 1970s and developed the Planned Activity Check, (PLA-Check, Doke and Risley, 1972). The measure requires little observer effort, evaluating and comparing entire activity

periods or settings using group recording time-sampling procedures. Proportions of time a client is observed to be appropriately engaged or participating in the target activity are then evaluated. After developing a manual and testing the protocol in a variety of settings from infant day-care settings to geriatric homes, (Risley and Cataldo, 1973), Risley and colleagues encouraged others to utilize the system in behavior therapy practices. The PLA-Check has since been applied to numerous treatment settings and has been used as a staff performance feedback system. This symposium will evaluate proposed uses and modifications of the PLA-Check in treatment settings for children with autism. The modifications range from changes in the original group measure to alterations that make it feasible to evaluate individual client differences. Pros and cons of these formats as well as the benefits of further evaluating and disseminated the usage of the PLA-check are discussed.

Adapting the PLA-Check: From Group to Individual Analyses. LAUREN BOEHM (DFW Center for Autism), Kecia Adams-Wright (DFW Center for Autism), Julie Griffith (DFW Center for Autism), Jessie Whitesides (DFW Center for Autism), Edward Hargroves III(DFW Center for Autism), Rebecca Morgan (DFW Center for Autism), Carrie Greer (DFW Center for Autism), Rebecka Honardar (DFW Center for Autism)

Abstract: PLA-Check (Risley & Cataldo, 1973) data were collected at the Texas Star Academy, an inclusive preschool serving students with autism alongside typically developing peers, which is a replication of the renowned Walden Early Childhood Center at Emory University (McGee, Daly, & Jacobs, 1994). The PLA-Check has been used to provide an understanding of the propriety of learning environments and activities offered, and to show the differences in the engagement of the children with autism and their typical peers. The PLA-Check has been adapted to make it an effective tool for collecting similar information in private preschool settings. However, rather than evaluating an entire group of students together with their peers, individual engagement data were collected for a target student during selected community preschool activities. A normative sample was also gathered in order to set attainable objectives for each target child in the community preschool settings to arrange for optimal success in each activity. Data from both the group Walden replication setting and the individual community preschool settings are exhibited, compared, and discussed. Original PLA-Check designs and rationales for using and adapting the measure in similar settings also are examined.

A Circle of Friends: Comparing Individual Differences to a Small Normative Group. SHANA WIGGINS (DFW Center for Autism), Kristen Casteel (DFW Center for Autism), Thomas O'Mara (DFW Center for Autism), Kecia Adams-Wright (DFW Center for Autism), Rebecca Morgan (DFW Center for Autism)

Abstract: Risley and Cataldo's (1973) PLA-Check was used to observe a 4 year old child with High Functioning Autism within his preschool setting in order to gauge proximity and engagement in various activities compared to his typically developing peers. Overtime, the participant achieved levels on the PLA-Check that were comparable to his typically developing peers, but it was evident that other social and communication skills within group settings were not as complex as those that were demonstrated by his peers. More specifically, the participant did not initiate with or respond to peers at similar rates. As a result, treatment programs were designed to target these specific deficits in 1:1, 1:2, and group settings. In order to capture the rate at which he engaged in language initiations and responses with his peers, the initial PLA-Check was modified to allow these behaviors to be measured. This modification still allowed for data to be collected on his peers who were present within the same activity, which served as a normative reference. The modified PLA-Check proved to be a valuable tool, providing guidance on when and where program updates were needed. Due to the successful adaptations to the original PLA-Check measure, the modified PLA-Check has since been beneficial in other children's programming.

Coming Full Circle: Individuals' Data and Group Data Revisited. JULIE GRIFFITH (DFW Center for Autism), Kecia Adams-Wright (DFW Center for Autism), Rebecca Morgan (DFW Center for Autism), Rachael Shrontz (DFW Center for Autism)

Abstract: Originally, the PLA-Check was used to measure target behaviors within a group across time or activities. Since the introduction of the PLA-Check adaptations have been made to make the

measurement system more individualized to meet the needs of the observer. The current discussion reviews the use of an adapted version of the PLA-Check to observe behaviors of two children with autism, including proximity to peers, interaction with typically developing peers, and language emitted by those being observed, in addition to activity engagement. These additional measures were used to observe two children with autism in separate inclusive settings. Data for each individual were collected on two levels. On the first level, the individual's behavior was measured with no additional comparison to other individuals. The second level of measurement compared group behavior of those engaged in the target behaviors to the total number of children within the group. Both levels of measurement provide a useful comparison.

#510 Panel Discussion

5/26/2009
9:00 a.m. - 10:20 a.m.
North 120 BC
AUT/EDC; Service Delivery
BACB CE Offered. CE Instructor: Christina Whalen, Ph.D., BCBA

Facilitating Generalization of Treatment Effects in Individuals with Autism
Chair: Mary Jane Weiss (Rutgers University)

ANDREW S. BONDY (Pyramid Educational Consultants)
ILENE S. SCHWARTZ (University of Washington)
SABRINA D. DANESHVAR (Autism Spectrum Therapies)
CHRISTINA WHALEN (Jigsaw Learning)

Abstract: Generality of treatment gains for individuals with autism spectrum disorders is a primary concern for clinicians. This panel will address strategies for increasing generalization. Panel members will address generalization strategies in home and in school settings, and will focus on parent and staff training approaches that increase success. In addition, panelists will address applications with the Picture Exchange Communication System and with computer-based instructional technologies.

#511 Symposium

5/26/2009
9:00 a.m. - 10:20 a.m.
North 124 A
AUT/EDC; Service Delivery

Behavioral Consultation and Inclusion of Students with Asperger's Syndrome
Chair: Joseph M. Vedora (BEACON Services)
Discussant: Robert K. Ross (BEACON Services)
BACB CE Offered.

Abstract: Many high functioning children with Aspergers Syndrome are in regular education settings with typically developing peers. However, children with Aspergers may demonstrate a variety of problematic behavior that interferes with both their learning and their classmates' learning. Additionally, they may demonstrate difficulty with social situations or interactions with peers. This symposium presents three case studies that illustrate the effective implementation of behavioral interventions that decreased aberrant behavior and increase adaptive behaviors within the context of public school classrooms. The presentations will also discuss the role of behavior analysts in the development of effective services within this setting as well as the critical importance of careful and supportive collaboration with public school staff.

Asperger's Syndrome and Inclusion: Interventions That Succeed in Public Schools. DAVID ROBERT DILLEY (BEACON Services)

Abstract: Recent years have seen a dramatic increase in the inclusive practices for children on the Autism Spectrum in public schools. The U.S. Department of Education statistics show the number of children diagnosed with autism being served under the Individuals with Disabilities Education Act growing more than fivefold since the 1990s (Dybvik 2004). Within these statistics exists children with Aspergers Syndrome whose deficits in social, behavioral and non-verbal areas, among others, make their inclusion into regular education classrooms complicated. Though students with Aspergers Syndrome are often capable cognitively of grasping classroom material, they frequently require high levels of support or even 1:1 attention from paraprofessionals. The present study highlights the use of behavioral interventions, within an inclusive classroom, to decrease aberrant behavior and increase pro-social and independent behavior for student with Aspergers Syndrome.

Decreasing Disruptive Behavior and Increasing On Task Behavior of a Student with Asperger's Syndrome in an Inclusion Setting. JOSEPH M. VEDORA (BEACON Services)

Abstract: Students with Aspergers Syndrome may engage in disruptive behaviors that limit their access to inclusive settings. The present research reviews a case study for a 3rd grader with Aspergers in a regular education classroom. Prior to treatment the student engaged in high rates of tantrum and screaming behavior that impacted the learning of his classmates and often necessitated removal from the classroom. A functional assessment indicated that problem behaviors were maintained by escape or avoidance of non-preferred academic tasks. A multiple component treatment package comprised of functional communication training, escape extinction, and positive reinforcement was implemented. Results indicated a substantial decrease in disruptive behavior and an increase in on task behavior and task completion. The role of behavior analysts in the program development for students with Aspergers is discussed.

Public School Consulting: Using the Behavior Analytic Tool Box to Design Interventions in Separate Classrooms in Public Schools. DAVID M. CORCORAN (Beacon Services), Stephanie Beard (BEACON Services)

Abstract: This paper looks at the use of the tools derived out of behavior analytic technologies to design and implement instruction for students with a variety of disabilities in two public school "learning center" settings. These tools include teaching special educators, para-professionals and specialists (e.g. speech OT, PT) to employ errorless teaching procedures and prompt-level data recording and analysis, Discrete Trial Teaching procedures, a Direct Instruction curriculum, Incidental Teaching and, Photographic Activity Schedules to provide instruction to students with substantial "pull out" time as part of their Individual Education Plans. Data will be presented on the use of prompt level data recording to measure progress and make instructional decisions for students who previously had been found to "not make progress". Data will be presented on the use of Direct Instruction curricula (e.g. Reading Mastery, Language for Thinking, Connecting Math Concepts etc). Data will be presented on the application of Activity Schedules (MacDuff, Krantz & McClanahan) as part of the regular academic schedule in the substantial separate classroom. Training, consulting and supervision issues will also be presented.

#512 Symposium

5/26/2009
9:00 a.m. - 10:20 a.m.
North 126
AUT/DDA; Applied Behavior Analysis

Family and School Related Factors for Children and Adolescents with Autism
Chair: Ronald B. Leaf (Autism Partnership)

Abstract: Over the past forty years researchers and clinicians have focused on many factors that relate to children and adolescents with autism; ranging from improving teaching techniques to decreasing problem behaviors. Recently, both researchers and clinicians have started to focus on factors relating to the families of children and adolescents with autism and on factors relating to school and group instruction. This symposium

will consist of four presentations that focus on school related and family related factors for children and adolescents with autism. The first presentation examined ways to teach typical siblings how to better interact with their brothers with autism and hopefully improve the overall quality of their relationships. The second presentation will concentrate on the role of families within applied behavior analysis intervention. The third presentation examined the effects of group instruction on observational learning. The final presentation will discus the outcomes of a middle school classroom utilizing behavioral principals for adolescents with autism.

Family and School Related Factors for Children and Adolescents with Autism. MISTY L OPPENHEIM (University of Kansas), Kelley Radin Gorman (University of Kansas), Jan B. Sheldon (University of Kansas), James A. Sherman (University of Kansas)

Abstract: Siblings are often the most important "peers" in children's lives. Unfortunately, children with autism often do not play or interact a great deal with their typically developing siblings, largely because the children with autism do not have the necessary language and social skills to do so and because their siblings do not know how to facilitate play with their brother or sister. The purpose of this study was to teach three typically developing children (ages 4-6 years old) skills that were likely to increase the amount and quality of social play interactions with their brothers who had autism. Using a teaching interaction procedure, the typical children were taught how to provide clear instructions, to prompt, and to reinforce play related behaviors such as joining into a play activity, sharing preferred toys, and appropriate toy play. All three of the typically developing children were able to learn the targeted skills during role-plays with a teacher and, to a large part, displayed these skills when playing with their brothers with autism. In addition, for some children, learning these skills was associated with positive interactions and decreased negative interactions during free-play periods.

Quality ABA: Understanding the Role of the Family. RONALD B. LEAF (Autism Partnership), Jamison Dayharsh Leaf (Autism Partnership), Marlena Driscoll (Autism Partnership), Mischele Jesner (Autism Partnership)

Abstract: The vast majority of books and research articles about Autism Spectrum Disorder (ASD) deals primarily with the child. With the exception of the work by Sandra Harris and her colleagues, very little is written about the family. However, careful attention must be given to treating the whole family, because the whole family is profoundly affected by Autism Spectrum Disorder. And the family will have a big impact on treatment outcome. Clearly, if it were not for the family, the child with ASD would not have the opportunities for improvement. There would not be the support and nurturing necessary to endure the challenges. It is ultimately the family that makes it happen!

Unless someone has had a child with ASD, it is impossible to understand the pressures that mothers and fathers feel. It starts with the struggle to obtain a correct diagnosis and then moves on to sorting out the hundreds of treatment options and having to deal with condescending professionals with unsupportive attitudes and conflicting advice. It is natural that parents are not only devastated and depressed, but also infuriated with the process.

This presentation will focus on the role of the family in ABA intervention. Navigating the roles of a therapist, advocate and most importantly parent is a delicate and critical balance. In the final analysis successful intervention requires providing support and training not only the child but often to the entire family.

Group Instruction for Children with Autism and Observational Learning. JUSTIN B. LEAF (University of Kansas), Misty L Oppenheim (University of Kansas), Wesley H Dotson (University of Kansas), Valerie A Johnson (University of Kansas), Jan B. Sheldon (University of Kansas), James A. Sherman (University of Kansas)

Abstract: Group instruction may have several benefits for children with autism such as resembling a typical school environment, fostering social relationships, and providing an opportunity for observational learning. Though observational learning may be a benefit of group instruction for children with autism, there has been little empirical evidence showing that children with autism observationally learn new skills

when taught in a group. This study analyzed the effects of group discrete trial teaching, using a no-no prompt procedure, for teaching five children with autism how to label different facial expressions (i.e., scared, excited, surprised, bored). All five children were able to label all emotions directly taught to them at 100% accuracy for three consecutive sessions and were able to label emotions through observational experience alone at rates substantially higher than baseline. Participants were also able to maintain correctly labeling emotions directly taught to them or that they observationally learned at least four weeks following intervention. In addition, all five participants were able to generalize their labeling from picture cards of children to picture cards of known adults. This presentation will discus the results and implications or this study and possible future research.

A Model ABA Classroom for Middle School Students with Autism: It's Never too Late.
MITCHELL T. TAUBMAN (Autism Partnership), Ronald B. Leaf (Autism Partnership), Jennifer Styzens (Autism Partnership), Richard Schroeder (Autism Partnership), Andrew Edwards (Autism Partnership)

Abstract: The balance of research literature on ABA and educational programs for students with autism is skewed to preschool and elementary age. Further, the majority of the studies with secondary students are of a procedural level. This paper is concerned with an ABA classroom on a regular education middle school campus for students with autism who had struggled in other special education classrooms. Components of the model will be shared, including classroom set-up, balance of instructional elements, individualized curriculum, behavior programming, and integration into the campus community. Behavioral data on reduction of problem responding as well as pre and post school year information derived from standardized tests will also be offered.

#513 Symposium

5/26/2009
9:00 a.m. - 10:20 a.m.
North 125
AUT/EDC; Service Delivery
BACB CE Offered. CE Instructor: Stacey Buchanan Williams, M.S., BCBA

Classroom-Based Behavior Management Strategies to Address Attending and Disruptive Behavior in Children with Developmental Disabilities.
Chair: Stacey Buchanan Williams (Melmark New England)
Discussant: Frank L. Bird (Melmark New England)

Abstract: There is a rich literature base on behavioral interventions designed to address behavioral excesses and deficits in children with developmental disabilities. This symposium adds to this knowledge and highlights three behavioral interventions used to reduce challenging behavior and increase appropriate behavior in private school and inclusion settings. The first talk shares results from a multi-component treatment package designed to address aggression in two children with autism. In the second talk, a differential reinforcement procedure combined with time out was effective in reducing both verbal and physical stereotypy as well as increasing appropriate behavior in a young boy with autism educated in a private school setting. The symposium will conclude with a presentation on the results of an intervention used to promote self-monitoring and thereby increase attending of a learner in an inclusion setting. Presenters will summarize existing research, describe intervention methodologies, offer empirical examples, and discuss implications within educational settings.

Use of a Multi-Component Treatment to Decrease Inappropriate Behaviors and Promote Self-Regulation. STACEY BUCHANAN WILLIAMS (Melmark New England), Keri M. Butters (Melmark New England), Lisa Freedman (Melmark New England)

Abstract: The effects of a differential reinforcement of alternate behavior (DRA) intervention combined with a time out procedure for increasing appropriate behaviors for two students within a private school setting were evaluated. During baseline, both students demonstrated high frequencies of aggression and one student also demonstrated high frequencies of screaming (Student A: aggression M = 31; Student B:

aggression M = 34 and screaming M = 99). During treatment, a visual board that depicted a specific rule for accessing tokens and a subsequent reinforcer was introduced. The reverse side of the visual board contained an icon that represented the reinforcer was no longer available. During the DRA procedure, students received tokens for demonstrating appropriate behavior during a predetermined time interval. If the students demonstrated aggression or screaming, the visual board was turned over signaling the time out procedure was in effect. After achieving a calm criterion, the DRA procedure was immediately reinstated. The interval duration per token was systematically increased over time. Frequencies of challenging behavior decreased for Student A (aggression M = 20) and Student B (aggression M = 18 and screaming M = 78) during treatment.

Effects of Differential Reinforcement and Time Out to Reduce Vocal and Physical Stereotypy in a Child with Autism. Florence D. DiGennaro Reed (Melmark New England), STACEY BUCHANAN WILLIAMS (Melmark New England)

Abstract: Stereotypic behavior is frequently observed in individuals with autism and is often an area of focus for intervention. Stereotypy has the potential to impede skill development when it occurs at high levels and to stigmatize individuals who engage in this topography of behavior. The purpose of this presentation is to share findings from an investigation in which a multi-component treatment was introduced to reduce the vocal and physical stereotypy of a student with autism served within a private school setting. The percentage of intervals during which the student engaged in verbal (M = 40%) and physical (M = 34%) stereotypy was at moderate levels during baseline. Following treatment consisting of an interval-based DRA and time out procedure, significant reductions in verbal (M =4%) and physical (M = 3%) stereotypy were found during 5-min sessions. Over time, the procedure was introduced across the school day and the interval for receipt of the reinforcer was increased from 50 seconds to 10 minutes. Intervals during which appropriate behavior was exhibited as the time was increased averaged 95%. Implications of these findings as they relate to the development of behavioral interventions to address stereotypic behavior in educational settings will be discussed.

Use of a Self-Recording Form to Teach Self-Monitoring of Attending Behaviors in an Inclusion Setting. JESSICA R. EVERETT (Melmark New England), Pat Dennis (Melmark New England)

Abstract: The ability to attend to instruction within a classroom environment is a primary goal of school inclusion. Learning opportunities are increased when students are able to attend to instruction independently and are able to re-direct themselves back to task when needed. For students with deficits in their ability to attend to instruction, specific intervention must be targeted towards teaching these skills. This presentation will highlight a systematic instructional approach to teach students with autism spectrum disorders attending skills using a self-monitoring tool where the student first learns to accurately record his behavior and then learns to generalize the skill in a group instruction format. The approach to be presented includes both fading of instructor support, instruction in self-reinforcement, and systematic increasing of time intervals in which the student self-monitors attending behaviors. Data from clinical case examples will be shared. Procedures for generalization of skill development across environments and instruction will also be discussed.

#514 International Symposium

5/26/2009
9:00 a.m. - 10:20 a.m.
North 128
AUT/DDA; Applied Behavior Analysis
BACB CE Offered. CE Instructor: Yvonne EM Bruinsma, Ph.D., BCBA

Pivotal Response Treatment: Applications for Training and Intervention
Chair: Daniel Adam Openden (Southwest Autism Research & Resource Center (SARRC)

Abstract: In the last several years Pivotal Response Treatment (PRT) has gained momentum in its use as an evidence based treatment method.This symposium will present four studies using Pivotal Response Treatment. Each study will focus on a different aspect of PRT. Two studies focus on dissemination and

teaching of PRT principles, while the other two studies consist of single subject design studies that investigate specific aspects of direct intervention using PRT.

Specialized Training Programs in Autism for Teachers and Related Professionals. JENNIFER B. SYMON (California State University)

Abstract: Students with Autism Spectrum Disorders (ASD) present with specific challenges in their social communication skills and behaviors. Yet, many educational team members, including teachers, lack specialized training in autism. This presentation will describe a federally funded, multi-disciplinary training program for a variety of professionals working with and supporting children with ASD. Early childhood special education teachers, school counselors, school psychologists, agency ABA therapists, speech pathologists and other professionals have received training through this program. Outcome data from the project along with several graduate students' research projects will be presented demonstrating improved skills for children with ASD.

Pivotal Response Training Group Therapy Model: Analysis of Parent and Child Outcomes. MENDY BOETTCHER MINJAREZ (Division of Child and Adolescent Psychiatry)

Abstract: Rates of autism have increased in the last ten years in the United States and some data suggest California is being hit particularly hard. With children being diagnosed as young as 18 months of age, the need for services is increasing. Research has demonstrated that interventions based on operant conditioning procedures, such as Pivotal Response Training (PRT), lead to improvements in the core symptoms of autism. This research supports that parents can become effective intervention agents. Historically, such interventions have been delivered individually; however, the increase in service demand makes this model relatively inefficient. As a result, researchers are beginning investigate group treatment models, which have little empirical support to date. The purpose of the present study was to demonstrate that parents can learn PRT procedures in a ten-week group therapy format and meet fidelity of implementation criteria for treatment termination typically used in individual therapy. An additional purpose was to demonstrate that when parents learn the PRT procedures their children make subsequent treatment gains. A multiple baseline design across subjects demonstrated that: 1) targeted skills not used by parents during baseline parent-child interactions are used by post-treatment; 2) children's language skills improved during parent-child interactions from baseline to post-treatment. These findings are analyzed in light of the clinical need for more data driven, cost-effective, and efficient treatment models and the research need for more robust analysis of naturalistic behavioral treatment models.

When Behaviors Interfere: A Comprehensive Treatment Package to Increase Skill Acquisition in Pivotal Response Treatment. LAURA R. BUTLER (Behavioral Support Partnership)

Abstract: Pivotal response training (PRT) aims to provide opportunities for learning in the context of natural environments and consists of a comprehensive delivery model that uses both a developmental approach and applied behavior analysis. When working with children with Autism we sometimes see an increase in inappropriate behaviors at the start of treatment. This burst in inappropriate behaviors can lead to a major portion of therapy being focused on the reduction of such behaviors making effective treatment difficult. The following study incorporates a comprehensive treatment package to reduce the occurrence of inappropriate behaviors which in turn will show an increase in skill acquisition using Pivotal Response Treatment. Intervention consisted of two schedules of differential reinforcement (DRO and DRA), combined with video modeling and teaching calming techniques. It is expected that the treatment package will reduce inappropriate behaviors and increase skill acquisition in PRT. It is also hypothesized that with the reduction of behaviors, scores on developmental assessments will increase substantially over a 3 month period. Results will be discussed in terms of the need for comprehensive intervention across settings for children whose progress is limited as a result or their challenging behaviors.

Teaching Language to Very Young Children at Risk for ASD Using PRT: Comparing Responsivity to Verbal Prompting With Responsivity to Environmental Obstructions. YVONNE BRUINSMA (Behavioral Support Partnership)

Abstract: Now that ASD symptoms are detected at earlier ages, early intervention services have begun to adjust teaching strategies to very young children. Relatively little specific research has been conducted that specifically takes into account the very young age of the children receiving early intervention services. The present study investigated a specific prompting method for three children at risk for ASD younger than 24 months of age. A treatment reversal design was utilized to investigate whether children were more responsive to environmental obstructions in comparison to direct verbal prompting where the object was withheld. Therapists used motivational PRT strategies and alternated between the two conditions during the experiment. During the environmental obstruction condition the therapist put the object out of reach, handed the child something they were unable to operate or open, and/or the therapist pretended to ignore the child. Data suggested that younger children were more likely to attempt verbal utterances if an environmental obstruction was used. These results will be discussed and further directions will be explored.

#515 International Symposium

5/26/2009
9:00 a.m. - 10:20 a.m.
North 120 D
AUT/DDA; Applied Behavior Analysis
BACB CE Offered. CE Instructor: Amy Kenzer, Ph.D., BCBA

Outcome of Early Intensive Behavioral Intervention for Children with Autism II
Chair: Amy Kenzer (Center for Autism and Related Disorders)
Discussant: Sigmund Eldevik (Center for Early Intervention, Oslo, Norway)

Abstract: This symposium presents further research on outcomes of early intensive behavioral intervention for children with autism. The first paper consists of a retrospective chart review for 38 children with autism who recovered from autism after receiving early intensive behavioral intervention. The second paper is a program evaluation for a state-funded EIBI program in Phoenix, Arizona. The third paper consists of study comparing outcomes for children with autism receiving low intensity intervention to those of children receiving higher intensity intervention. The symposium will conclude with a discussion by Dr. Sigmund Eldevik.

Retrospective Analysis of Clinical Records in 38 Cases of Recovery from Autism. Doreen Granpeesheh (Center for Autism and Related Disorders, Inc.), DENNIS DIXON (Center for Autism and Related Disorders), Jonathan J. Tarbox (Center for Autism and Related Disorders, Inc.)

Abstract: Twenty years of research on early intensive applied behavior analytic (ABA) treatment for children with autism has consistently produced robust treatment effects. However, there appears to be a subset of children who respond best to intensive ABA treatments, including achieving a level of functioning that is indistinguishable from typically developing peers. The purpose of this study was to describe a subset of children who recovered from autism following intensive ABA interventions. We reviewed the clinical files of 38 children with autism who achieved an optimal outcome after receiving intensive ABA services. The mean age at intake was 40 months. Average IQ was 83.6 at intake and 107.9 at discharge. Mean adaptive skills were 68.04 at intake and 88.87 at discharge. Our study corroborates the finding that some portion of children with autism who receive early intensive behavioral intervention achieve functioning in the average range.

CARD/Arizona: A Model for Effective Partnership and Preliminary Outcome Data. Amy Kenzer (Center for Autism and Related Disorders), Doreen Granpeesheh (Center for Autism and Related Disorders, Inc.), Jonathan J. Tarbox (Center for Autism and Related Disorders, Inc.), SARAH M. NIEHOFF (Center for Autism and Related Disorders)

Abstract: Early intensive behavioral intervention (EIBI) has been established as an effective treatment for autism, resulting in an increase in the number of EIBI programs for young children with autism. As these services rise in popularity, evaluating their effectiveness continues to be a priority. Additionally,

further research is necessary to ensure continued changes in public policy affecting funding and availability of EIBI treatment programs. To this end, the state of Arizona granted the Center for Autism and Related Disorders (CARD) funding for a program to demonstrate early intensive behavioral intervention services for young children with autism in the Phoenix area and to empirically evaluate its effectiveness. The program will be described as a model for partnership between state agencies and private service providers. A comprehensive description of the project will be provided including: 1) detailed account of critical treatment variables, 2) one-year treatment outcomes for all participants, and 3) the current status of public policy regarding EIBI in Arizona.

An Evaluation of High Intensity and Low Intensity Behavioral Intervention for Young Children with Autism. AMY KENZER (Center for Autism and Related Disorders), Doreen Granpeesheh (Center for Autism and Related Disorders, Inc.), Jonathan J. Tarbox (Center for Autism and Related Disorders, Inc.)

Abstract: Treatment intensity is a critical variable in the effectiveness of behavioral interventions for young children with autism. However, treatment intensity is one aspect of treatment implementation that is particularly variable, due to factors such as limited funding, parent preference, and scheduling conflicts with non-behavioral treatment and educational services. As a result, actual implementation of behavioral therapy for children with autism often involves a range of intensities, from as little as 8 hours a week to as many as 40 hours a week of intervention. The current study investigated the effects of low intensity and high intensity behavior therapy for young children diagnosed with autism. Specifically, two groups of children received services from the Center for Autism and Related Disorders, with participants in the high intensity group receiving an average of 25 or more hours per week of treatment, while the participants in the low intensity group received an average of 8 - 15 hours per week of treatment. A comprehensive battery of assessments was conducted prior to treatment and at yearly intervals. Measures include tests of adaptive behavior, language, IQ, social skills, and executive function, in addition to diagnostic measures related to autism.

#516 Symposium

5/26/2009
9:00 a.m. - 10:20 a.m.
North 127
AUT/EDC; Service Delivery

Families for Effective Autism Treatment (FEAT) of Washington's Center Based Programs for Individuals with ASD
Chair: Kristin N. Schirmer-Foley (Organization for Research and Learning & FEAT of Washington)
Discussant: Kristin N. Schirmer-Foley (Organization for Research and Learning & FEAT of Washington)

Abstract: Since 1996, FEAT of Washington has been helping families with loved ones with autism find resources, get educated on effective treatment, and network with other families who are on the same journey. FEAT fosters the essential elements to support, guide, and respond to the needs of families and professionals in the community. Through the years, FEAT has expanded into an organization that not only helps families through resource referrals, but also through prudent investments in high-quality, evidence based, and replicable programs. This symposium will provide information regarding two of FEAT of Washington's Center Based Programs; Rising Star Academy an inclusive preschool program, and Transitions for Teens an adolescent and young adult program. Both programs will present outcomes data as well as social validity data that align with FEAT of Washington's mission statement: Feat of Washington provides families with hope and guidance to help their children with autism reach their full potential.

Rising Star Academy: A Successful Inclusive Preschool Program for all Students. KRISTIN N. SCHIRMER-FOLEY (Organization for Research and Learning & FEAT of Washington), Elizabeth B Snyder (FEAT of Washington), Brandi Michelle Allred (FEAT of Washington)

Abstract: Why send a typically developing child to an inclusive preschool that specializes in Autism Spectrum Disorder? Rising Star Academy is an inclusive preschool program for children on the Autism Spectrum and their typically developing peers. This data based paper will discuss the annual progress made by all children, both with and without Autism Spectrum Disorder and will show that meaningful growth occurred across both groups of students. Data collected includes micro, meta and macro examples from multiple students who attend Rising Star Academy. Micro and meta data samples will include Fluency Based Instruction data, Precision Teaching data and Direct Instruction data. In addition, macro data was collected on pre and posttest scores in the areas of language development, social skills, independent skills, general development and classroom adaptive behaviors. Student objectives were highly individualized and meaningful growth occurred on individual objectives as well as on pre and post assessments for all children: those with ASD and those without.

Transition Programming for Adolescents with Autism. SARA J. PAHL (FEAT of WA), Jamie Rose Feddock (FEAT of WA), Andrew M. Syvertsen (FEAT of Washington)

Abstract: Transitions for Teens (TFT) is a clinical intervention program that that seeks to significantly improve adolescents and young adults self-determination, independence, and quality of life provided by high-quality behavior analytic services delivered through individual and comprehensive programs that increase their social competence and build skills necessary to access and navigate their world while also respecting individual preference and rights. Skills targeted for clients enrolled in the Transitions for Teens program are individualized, yet fall within the repertoire areas of; navigation, socialization, self-advocacy, self-management, communication, production, safety, health, and leisure.
This paper will focus on providing (1) A brief overview and history of the program (2) Examples of outcomes data will include; Macro, Meta, and Micro level assessment data, as well as social validity collected across families and community members. (3) We will also include a brief overview of staff structure, staff training procedures, as well as enhancements made to the program this year.

Does Community-Based Instruction Impact Community Members, If so, What Impact Have we Made? SARA J. PAHL (FEAT of Washington), Andrew M. Syvertsen (FEAT of Washington), Michael Fabrizio (Families for Effective Autism Treatment (FEAT) of Washington), Jamie Rose Feddock (FEAT of WA)

Abstract: Transitions for Teens (TFT) is a clinical intervention program that that seeks to significantly improve adolescents and young adults self-determination, independence, and quality of life provided by high-quality behavior analytic services delivered through individual and comprehensive programs that increase their social competence and build skills necessary to access and navigate their world while also respecting individual preference and rights. Specifically, TFT targets skills within the area of navigation, socialization, self-advocacy, self-management, communication, production, safety, health, and leisure. Community-Based Instruction is the primary instructional arrangement used within TFT. All clients' objectives are targeted and taught in the community daily, which means staff and clients are interacting with community members daily. With this level of exposure, it is important to assess the impact the program has on the larger community, as well as the impact the community has on the program.
This paper will focus on providing (1) Interview and observational data collected on community members interactions with clients, as well as describing the impact our program has had on individual community members. (2) Data based decisions used to inform Community-Based staff training procedures in regards to teaching, intervening, and assessing clients in the community, as well as shaping community members behaviors.

#517 International Symposium

5/26/2009
9:00 a.m. - 10:20 a.m.
North 222 AB
CBM; Applied Behavior Analysis

Acceptance and Commitment Therapy for Coping with Chronic Medical Conditions

Chair: Merry Sylvester (University of Nevada, Reno)

Abstract: Acceptance and Commitment Therapy (ACT) has shown growing promise for use with behavioral medicine populations. When people cope with a chronic medical condition, they may be faced with a number of adversities including physical pain, medication regimens that produce severe side-effects, disability, cognitive impairment, financial difficulty, and lack of social support. It is not surprising then, that many people become depressed when coping with a chronic medical condition. Given the focus on common core processes (e.g., experiential avoidance) which may manifest in diverse clinical presentations, ACT is uniquely suited for the myriad treatment targets (e.g., disability adjustment, treatment adherence, depression, etc.) which may arise as a person copes with the diagnosis and progression of chronic medical conditions. In this symposium, we will discuss the application of ACT to three/four chronic medical conditions: lupus, multiple sclerosis, traumatic brain injury, and chronic pain.

Chronic Pain: Increasing Quality of Life via Acceptance and Values. JENNIFER PLUMB (University of Nevada Reno), Steven C. Hayes (University of Nevada, Reno)

Abstract: One in five Americans struggles with chronic pain. Some forms of pain, such as fibromyalgia, are often under-treated as effective medications can lead to dependence. Pain which is poorly managed is associated with increased functional impairment, disability, stress, and depression. Experiential avoidance, or the tendency to attempt to avoid pain and pain-related private experiences has been identified as a maintaining variable for chronic pain and predictor of disability above pain severity (McCracken, Vowles & Eccelston, 2004). Identifying values can increase clients' motivation to engage in important life activities that may have become restricted in service of avoiding pain, and acceptance has been shown to foster willingness to experience pain and related symptoms as one engages in these important life activities. Both values and acceptance have increased subjective quality of life and important life activities in chronic pain sufferers (Dahl et al, 2004; Vowles & McCracken, 2008). The application of acceptance and commitment therapy for persons with chronic pain, including fibromyalgia, will be discussed along with the implications of this treatment in reducing functional impairments and the risk of disability.

Acceptance and Commitment Therapy in the Treatment of Psychological Problems Associated with Lupus. TOMAS QUIROSA-MORENO (Behaviour Analysis Group of University of Almeria, Spain), Carmen Luciano Soriano (University Almería, Spain), N Navarrete-Navarrete (University Hospital "Virgen de las Nieves"), O Gutiérrez-Martínez (Behaviour Analysis Group of University of Almeria), J.M. Sabio-Sánchez (University Hospital "Virgen de las Nieves"), J. Jiménez-Alonso (University Hospital "Virgen de las Nieves)

Abstract: Quality of life can often be negatively affected in systemic lupus erythematosus (SLE). Recent studies suggest that coping with the compound effects of diagnosis, treatment and consequences of the disease can often lead to an unwillingness to experience thoughts, feelings, and sensations related to the disease, or experiential avoidance (EA). Further, in attempts to avoid pain or prevent flare ups, valued living can become restricted Acceptance has been shown to alter EA in patients with cancer, chronic pain, epilepsy and diabetes. An 11-hour intervention for women with SLE was tested and compared to wait-list control (N=12). Patients in the ACT group (n=6) showed improvements in all psychological measures; acceptance of chronic pain, quality of life, anxiety, depression, and reduction in believability of private events as barriers to living. Subsequent Mann-Whitney analyses showed that there were no significant changes from pre to post in biological measures including biological markers of SLE, or number of flare ups,. However, there was a significant reduction in consumption of all classes of drugs (pharmacological, pain-relief, tranquilizers, anti-inflammatories)..These results provide promising evidence that ACT treatment can increase quality of life as well as reduce dependence upon drugs as one copes with lupus.

Acceptance and Commitment Therapy for Coping with Persistent Cognitive and Emotional Sequelae of Traumatic Brain Injury. MERRY SYLVESTER (University of Nevada, Reno), Steven C. Hayes (University of Nevada, Reno)

Abstract: Each year, approximately 90,000 Americans sustain a traumatic brain injury (TBI) that results in lasting impairments in cognitive, emotional, and behavioral domains. Unusual private experiences are common following TBI and are likely to persist despite the effectiveness of cognitive remediation and neuropsychological treatment in ameliorating other sequelae to brain injury (Prigitano, 1991). Rather than targeting a change in the topography of unusual private experiences, treatments informed by clinical behavior analysis would elucidate how these internal stimuli function to restrict the behavioral repertoires or engagement in valued activities. Acceptance and Commitment Therapy (ACT) is one such approach that may be effective in addressing the negative effects of internal sequelae to brain injury on quality of life. The potential benefits and challenges of implementing ACT with persons with TBI will be discussed, along with the need for idiographic modifications of the therapy in order to match the demands in the therapy context with the level of functioning of persons with TBI.

An Open Trial of a Half-Day ACT Workshop for Psychosocial Problems Associated with Multiple Sclerosis. SEAN SHEPPARD (SUNY - Albany), John P. Forsyth (University at Albany, SUNY), Edward Hickling (University at Albany, SUNY)

Abstract: Multiple sclerosis (MS) is a chronic, degenerative, and unpredictable disease of the central nervous system with a lifetime risk of 1 in 400 (Vollmer, 2007). MS is associated with depression, anxiety, fatigue, cognitive impairments, and impoverished quality of life (Chawastiak & Ehde, 2007). As there is no cure for MS, best treatment practices involve effective management of primary symptoms (Metz, Patten, & McGowan, 1999), with little attention to psychosocial problems or quality of life issues. A growing body of evidence indicates that Acceptance and Commitment Therapy (ACT) may be effective in treating depression, anxiety, and chronic pain (Hayes, Luoma, Bond, Masuda, & Lillis, 2006).

The present study investigated the effectiveness of two half-day ACT workshops in reducing psychological and physical indices of MS disability and increasing overall quality of life. Participants (n=23) were assessed at baseline and 3-month follow-up. Preliminary analyses from the first workshop indicate positive change on several outcome measures (e.g., depression, quality of life scales) as well as on measures of MS symptomatology. Relevant change processes will be discussed, along with the structure and delivery of ACT treatment components important in brief, focused interventions aimed at improving the quality of life for individuals with multiple sclerosis.

#518 Paper Session

5/26/2009
9:00 a.m. - 10:20 a.m.
North 224 A
CBM

Using Parents to Change Behavior
Chair: Lisa M Manthey (Wayne State University School of Medicine)

Multisystemic Therapy: A Social-Ecological Approach to Changing Adolescent Health Care Behaviors. (Service Delivery) LISA M MANTHEY (Wayne State University School of Medicine)

Abstract: Multisystemic Therapy (MST) is a successful home- and community-based behavioral therapy originally developed to treat antisocial adolescents. Deviant behavior and serious non-adherence to medical regimens share many of the same risk factors and barriers to successful behavior change. MST has recently been adapted to treat adolescents with poorly controlled chronic medical conditions and has shown promising results. The focus is on using evidence-based treatment strategies to ensure that caregivers have the knowledge and skills necessary to independently manage their child's health care behaviors in a social ecological context by assessing the barriers to timely and sustained behavior change, gathering and assessing outcome data regularly, and applying appropriate data-driven interventions across multiple settings. Additionally, individual interventions are often needed for anxiety, depression, diet management, communication skills deficits, organizational skills deficits, anger management, and/or other behavioral problems. MST is an example of clinical treatment environment in which behavior

analytical skills have wide application and acceptance. The underlying theories, service delivery model, and applications will be discussed with reference to behavior analysis.

A Rose by any Other Name: Deconstructing the Major Parent Management Training Programs.
(Applied Behavior Analysis) AMY DRAYTON (Eastern Michigan University), Michelle Byrd (Eastern Michigan University)

Abstract: Disruptive behavior is extremely common throughout childhood and disruptive behavior problems are the most common reason that children are referred for mental health services. Parent management training (PMT) has been demonstrated to reduce disruptive behavior by teaching parents to apply consistent consequences for behavior and is the predominant treatment for disruptive behavior problems. More than a dozen different PMT programs exist, but a review of the literature reveals that these programs have many of the same basic behavioral components. If all of these parent training programs have the same basic components, are there any differences in treatment effects? Getting certified and buying the materials for some of the programs can be expensive. Are clinicians wasting their money? Are psychologists wasting precious research funding investigating slight variations of the same thing? This paper will review the basic behavioral techniques that comprise the five major PMT programs and examine the short- and long-term effects of these programs in order to address the questions posed above. In addition, future directions for research in the area of PMT will be suggested.

Evaluation of an Intervention to Increase Caregiver Participation and Attendance in Treatment.
(Applied Behavior Analysis) KARIN TORSIELLO (Behavior Basics, Incorporated), Paula Leonardo (Behavior Basics, Incorporated)

Abstract: Behavior Basics is a private consulting agency that contracts with a local community based care agency in Florida providing ABA services to children in the child welfare system. 2001-2008 the Behavior Analysis Services Program had the contract directly with the Department of Children and Families. During BASP the behavior analysts encountered frequent no show appointments and cancellations which resulted in inconsistent treatment and loss of time and money to the individual analysts. When Behavior Basics accepted the private contract one of the ways we looked to improve quality of service was to implement a caregiver incentive program to motivate and reward caregivers for participation and attendance at home visits for treatment.
The caregivers were presented with an informed consent document that specifies that for every 4 consecutive kept appointments and participation in sessions they earn a $20.00 gift card to Wal-Mart. The baseline data was taken from the clients that were serviced prior to the privatization of this contract when no incentives were in place for caregiver participation. The implementation of the current intervention began on August 1, 2008.
This presentation will describe the incentive program and will discuss the baseline data as compared to the outcome data.

#519 Symposium

5/26/2009
9:00 a.m. - 10:20 a.m.
North 129 A
DDA; Applied Behavior Analysis
BACB CE Offered. CE Instructor: Mandy J. Rispoli, Ph.D., BCBA

The Influence of Motivating Operations on Assessment and Treatment Outcomes for Individuals with Developmental Disabilities
Chair: Mandy J. Rispoli (University of Texas at Austin)

Abstract: In this symposium we present recent research regarding use of motivating operations when working with persons with developmental disabilities. The first paper examines the influence of language of instruction on functional analysis results for students with severe disabilities. Results are interpreted with respect to language of instruction as a motivating operation. The second paper investigates the influence of presession satiation on challenging behavior and on the value of reinforcing stimuli. Implications for future

research and clinical practice are presented. The third paper evaluates the manipulation of motivating operations on the acquisition and generalization of functional communication training. Results highlight the importance of considering motivating operations when implementing functional communication training. Finally, the fourth paper examines the speed of acquisition for academic and functional tasks under the influence of different putative motivating operations for young children with developmental disabilities. Results suggest that motivating operations may influence the acquisition of novel behaviors and should be considered when designing and implementing instructional programs.

Investigating Language of Instruction as a Motivating Operation with Individuals with Severe Intellectual Disabilities. MANDY J. RISPOLI (Meadows Center for Preventing Educational Risk, University of Texas at Austin), Mark F. O'Reilly (Meadows Center for Preventing Educational Risk, University of Texas at Austin), Russell Lang (Meadows Center for Preventing Educational Risk, University of Texas at Austin), Jeannie M. Aguilar (Meadows Center for Preventing Educational Risk, University of Texas at Austin), Austin Mulloy (Meadows Center for Preventing Educational Risk, University of Texas at Austin)

Abstract: The number of individuals with severe disabilities in the United States who come from Spanish speaking homes has increased dramatically in recent decades. However, behavioral assessments for this population are most frequently conducted in English. This discrepancy between the individual's home language and the language used in behavioral assessments can have serious implications for the validity of assessment results and for subsequent treatment recommendations. The purpose of this study was to evaluate functional analysis results with respect to the language in which the assessment was conducted for individuals with severe intellectual disabilities. Participants were exposed to five analogue functional analysis sessions consisting of four conditions (attention, escape, tangible, and play). Functional analyses were conducted in English and in Spanish using a reversal design. The sequence of instructional language was counterbalanced across participants. Results are discussed with respect to language of instruction as a motivating operation for challenging behavior. Suggestions for future research and implications for clinical practice are presented.

An Examination of Effects of Manipulating Motivating Operation on Reinforcers for Children with Developmental Disabilities and Challenging Behavior. Mark F. O'Reilly (Meadows Center for Preventing Educational Risk, University of Texas at Austin), SOYEON KANG (Meadows Center for Preventing Educational Risk, University of Texas at Austin), Russell Lang (Meadows Center for Preventing Educational Risk, University of Texas at Austin), Mandy J. Rispoli (Meadows Center for Preventing Educational Risk, University of Texas at Austin), Jeannie M. Aguilar (Meadows Center for Preventing Educational Risk, University of Texas at Austin), Christina L. Fragale (Meadows Center for Preventing Educational Risk, University of Texas at Austin), Sonia Denise Baker (Meadows Center for Preventing Educational Risk, University of Texas at Austin)

Abstract: Allowing a child to satiate on a preferred tangible prior to instruction has been shown to reduce challenging behavior maintained by access to that tangible during instruction. Previous research has suggested that the mechanism of action for this decrease is the abolishing effect of motivating operations. This study examined the abolishing effect on reinforcers used during instructional sessions. The participants were four children with developmental disabilities whose challenging behaviors were maintained by a specific tangible. In pre-session satiation conditions the participants were given access to this specific tangible until they rejected it three times. In the following instructional session, both the newly rejected item and an item identified as less reinforcing in a previous preference assessment were offered to participants. Data demonstrates that challenging behavior was reduced during instruction and that the child was more likely to select the novel non-rejected item over the previously high preferred item as a reinforcer following satiation conditions. Implications are discussed in relation to the potential for incorporating motivating operations in the instruction of individuals with developmental disabilities and regarding a methodology for identifying behavioral indicators of satiation.

A Systematic Analysis of the Influence of Motivating Operations on Functional Communication Training and Generalization. TONYA NICHOLE DAVIS (Baylor University), Mark F. O'Reilly (Meadows Center for Preventing Educational Risk, University of Texas at Austin), Wendy A. Machalicek

(Portland State University), Mandy J. Rispoli (Meadows Center for Preventing Educational Risk, University of Texas at Austin), Russell Lang (Meadows Center for Preventing Educational Risk, University of Texas at Austin), Jeffrey Michael Chan (Meadows Center for Preventing Educational Risk, University of Texas at Austin)

Abstract: In this study we examined the influence of presession access to a reinforcer on communication intervention and generalization for three children with developmental disabilities whose challenging behaviors were maintained by access to tangibles. In the first phase of the study the consequences maintaining challenging behavior and their associated motivating operations were isolated. In phase two we assessed the duration in which the child interacted the preferred tangible before he/she demonstrated satiation. In the third phase of the study, we taught replacement mands and systematically examined the influence of motivating operations by presenting various durations of access to the reinforcer prior to intervention sessions. Four durations of presession access were administered, based upon the mean latency to satiation: (a) no presession access to the reinforcer, (b) presession access equaled 25% of mean latency to satiation observed in phase two, (c) 50% of mean latency to satiation, and (d) 75% of mean latency to satiation. Finally, we probed for stimulus generalization of these new mands while systematically examining the influence of presession access to reinforcers utilized in phase three. The results are discussed in terms of the importance of including motivating operations during functional communication training.

The Influence of Motivating Operations on the Efficiency of Discrete Trial Training. JEANNIE M. AGUILAR (Meadows Center for Preventing Educational Risk, University of Texas at Austin), Christina L. Fragale (Meadows Center for Preventing Educational Risk, University of Texas at Austin), Russell Lang (Meadows Center for Preventing Educational Risk, University of Texas at Austin), Mandy J. Rispoli (Meadows Center for Preventing Educational Risk, University of Texas at Austin), Mark F. O'Reilly (Meadows Center for Preventing Educational Risk, University of Texas at Austin)

Abstract: There has been a steady interest by behavioral researchers in examining both the functional properties and clinical applications of establishing (motivating) operations with individuals with developmental disabilities. Motivating operations have been shown to be critical variables when developing and interpreting behavioral assessments (e.g. preference assessments), intervening on challenging behavior, and examining the interaction between various biological conditions (e.g., health variables, genetic syndromes) and operant behavior. This study adds to the motivating operation literature by evaluating the influence of motivating operations on the acquisition of skills. Four students with developmental disabilities who received discrete trial training during their regular school routine participated in this study. The speed of acquisition for academic and functional tasks was evaluated while under the influence of different putative motivating operations in an alternating treatment design. Results suggest that motivating operations may influence the acquisition of novel behaviors and should be considered when designing and implementing instructional programs.

#520 International Symposium

5/26/2009
9:00 a.m. - 10:20 a.m.
North 226 AB
EAB/TPC; Experimental Analysis

Divided Attention and Divided Stimulus Control
Chair: Michael C. Davison (University of Auckland)

Abstract: This symposium comprises four data-based presentations that investigate compound stimulus control, and the various variables that move stimulus control, or attention, between different dimensions and elements of such compounds. Elliffe uses probe transfer tests to elucidate control by redundant relevant cues in learning a matching-to-sample procedure. Zentall investigates the element superiority effect in compound stimulus control and finds it unaffected by delay to choice, suggesting the effect is an attentional input effect. Shahan and Quick varied the probability of reinforcement for correctly reporting lines and colors in

compound stimuli under delay conditions. Even when stimulus discriminability was held equal by varying sample durations, they found the element-superiority effect, again supporting an attentional process. Davison replicates the control of sample responding by relative reinforcer rates for two stimulus dimensions reported previously by Shahan and Podlesnik, and presents a quantitative model for the effect.

Selective Stimulus Control in Matching-to-Sample. DOUGLAS ELLIFFE (University of Auckland)

Abstract: Six pigeons learned a redundant-relevant-cues identity matching-to-sample task in which the stimuli differed on two dimensions, color and shape. Probe transfer tests in extinction tried to identify whether either element overshadowed the other by arranging choice stimuli that shared one element and differed on the other. The shared element either matched or differed from that element of the sample on different trials. Color generally overshadowed shape, particularly early in testing and on matching common-element trials. However, continued testing produced both increased control by the weaker dimension and a strong tendency to choose the stimulus element that did not match the sample when the common element of the choice stimuli differed from the sample. This suggests that continued probe testing in extinction resulted in a loss of conditional control by the sample, leading to consistent choice of the "wrong" comparison stimulus. Supporting this interpretation, a series of resistance-to-reinforcement transfer tests reversed the trend and produced clear overshadowing of shape by color.

The Element Superiority Effect: An Attentional Phenomenon that Occurs at Input Rather than at Output. THOMAS ZENTALL (University of Kentucky)

Abstract: When pigeons are presented with a compound sample (color and line orientation) and tested with comparisons from either dimension, matching accuracy is poorer than when the sample is either color or line alone (the element superiority effect). We tested the hypothesis that this difference resulted from impulsive choice at test by asking whether the effect would be reduced when (1) choice latency was naturally longer, (2) a delay was required prior to comparison choice (a brief FI or DRL replaced CRF as comparison choice), (3) a more "natural" delay was imposed by presenting the sample at the back wall of the chamber and the comparison choice at the front wall. In all cases a constant element superiority effect was found. Thus, the effect appears to be attentional in nature resulting from a deficit at input rather than at output.

Reinforcement Probability Affects Adjusting Sample Duration in a Divided-Attention Task. TIM A SHAHAN (University of Utah), Stacey Quick (Utah State University)

Abstract: Pigeons responded on a delayed matching-to-sample procedure with intermixed compound (color + line orientation samples) and single-element (color or line samples) trials. Both trial types were followed by element comparisons comprised of either two colors or two lines for which accurate matches resulted in reinforcement with the same probability (i.e., color:line reinforcement ratio always =1). Across conditions, the overall probability of reinforcement was varied while accuracy on compound and element trials was held constant and equal by adjusting sample durations within sessions. Replicating previous work, required sample durations were longer on divided attention trials than on single-element trials (i.e., the element superiority effect). In addition, obtained sample durations for both compound and single-element trials increased with decreases in reinforcement probability. This result is consistent with the suggestion that the effects of reinforcement on conditional discrimination accuracy are mediated by changes in attending to the sample stimuli. However, the impact of reinforcement probability on required sample durations does not appear to depend upon whether attention is divided or not.

A Model for Divided Stimulus Control. MICHAEL C. DAVISON (University of Auckland)

Abstract: Four pigeons were trained on a compound conditional discrimination using two flash frequencies and two stimulus durations. Over a series of 7 conditions, the probability that correct detections of stimuli on each of the two dimensions would be reinforced was varied from 0 to 1.0. Stimulus discriminability measured by log d was a direct function of the probability of reinforcement, replicating previous research by Shahan and Podlesnik. We developed a quantitative model, based on the

discriminative law of effect (Davison & Nevin, 1999) that accounted nicely for the way in which reinforcers produce divided stimulus control.

#521 Symposium

5/26/2009
9:00 a.m. - 10:20 a.m.
North 227 BC
EAB; Experimental Analysis

Human Choice in Naturalistic and Gaming Contexts
Chair: Andrea Newcomer (University of North Texas)

Abstract: This symposium brings together several lines of research from laboratories investigating human choice under naturalistic and gaming contexts. The first presentation will discuss extensions of the Behavioral Ecology of Consumption, a foraging theory model of human decision-making in an online environment, in a replication and extension of previous online foraging research. The second presentation will discuss findings of a study on risky-choice behavior using an analogue of the TV show "Deal or No Deal", a game well-suited for analyzing risk taking. The third presentation will discuss both a laboratory preparation in which human subjects engage in a simulated Rock/Paper/Scissors game against a computer opponent and the extent to which response allocation can be described by a modified version of the generalized matching law. Finally, the fourth presentation will discuss data collected in a token-based iterated prisoner's dilemma social cooperation game.

A Behavioral Ecology of Consumption: Online Shopping, Foraging, Effects of Increasing Delays on Purchasing and Patch Residence. DONALD A. HANTULA (Temple University), Diane DiClemente Brockman (The University of Mary Hardin-Baylor), Carter L. Smith (Temple University)

Abstract: This paper extends the Behavioral Ecology of Consumption, a foraging theory model of human decision-making in an online environment, in a replication and extension of previous online foraging research. Previous research has established that in a simulated music mall in which stores are patches and page load delays are travel times, human choices conform to predictions from foraging theory. However, these studies used comparatively short delay intervals. In the current study participants shopped for music CDs in a simulated internet mall featuring five virtual music stores with delay to in-stock feedback of 2, 4, 8, 16, and 32 seconds. Preference was measured as the proportion of total purchases and shopping time (patch residence) allocated to each store. Consistent with previous research, a hyperbolic decay function provided the best fit to the data. The results further the consumer foraging model and bolster existing evidence of the generality of hyperbolic discounting and matching in human decision-making.

Deal or No Deal? Risk Taking in the Context of a Popular Game. CARLA H. LAGORIO (University of Florida), Timothy D. Hackenberg (University of Florida)

Abstract: Human choice behavior was examined using an analogue of the TV show "Deal or No Deal", a game well-suited for analyzing risk taking. In the game, repeated choices are made between taking a fixed monetary offer ("Deal") or rejecting that offer and taking a risky offer by continuing in the game, with uncertain later payoff amounts ("No Deal"). Using hypothetical monetary amounts, we systematically manipulated in a between-subjects design, the fixed offer in relation to the average offered by the risky alternative. The economic context was also manipulated by altering both the absolute size of the hypothetical payoff and the distribution of the variable payoff amounts. Overall, the studies illustrate a promising set of methods and analytic techniques for examining human risky choice in a relatively short period of time and with minimal instructions.

Concurrent Performance in a Three-Alternative Choice Situation: Quantitative Investigations using a Rock/Paper/Scissors Game. BRIAN D. KANGAS (University of Florida), Jesse Dallery (University of Florida), Timothy D. Hackenberg (University of Florida)

Abstract: In a series of experiments, adult human subjects engaged in a simulated Rock/Paper/Scissors game against a computer opponent. The computer opponent's moves were determined by programmed

probabilities that were manipulated across trial blocks. When given minimal instructions, response allocation was well-described by a modified version of the generalized matching equation, with minor-to-moderate overmatching observed. When given accurate probability-related instructions, subjects exhibited pronounced overmatching, a strategy that yielded higher reinforcement rates and greater maximization of reinforcement. On the whole, the series of experiments has shown that the generalized matching law provides a good description of complex human choice in a gaming context. Moreover, the experimental preparation offers a promising set of laboratory methods and analytic techniques that capture important features of human choice outside the laboratory.

Choices in a 2-Person Game: A Graded Prisoner's Dilemma Game. Howard Rachlin (Stony Brook University), Leonard Green (Washington University), AMANDA L. CALVERT (Washington University in St. Louis), Jesse D. Eisman (Washington University in St. Louis)

Abstract: Pairs of individuals played an iterated prisoner's dilemma (IPD) social cooperation game. On each trial both participants were asked to allocate tokens to 'cooperation' or 'defection' under each of two conditions that differed based on the method of token allocation allowed: All-or-None and Graded. In the All-or-None condition, participants had to allocate all 10 tokens to either cooperation or defection. In the Graded condition, participants could vary the number of tokens allocated to cooperation and defection. Half the pairs of participants completed the Graded condition in Phase 1 followed by the All-or-None condition in Phase 2, whereas the other half completed the All-or-None condition in Phase 1 followed by the Graded condition in Phase 2. Results indicated that participants tended to have higher mean levels of cooperation (greater number of cooperative tokens allocated) in the Graded condition than in the All-or-None condition in both phases. In addition, cooperation increased in the Graded condition in Phase 2, whereas it remained relatively unchanged in the All-or-None condition. These results are consistent with the theory that participants' cooperative responses are in part determined by the extent to which the other player can reinforce (reciprocate) past cooperation and punish (defect against) past defection.

#522 International Paper Session

5/26/2009
9:00 a.m. - 10:20 a.m.
North 225
EAB

Reinforcement
Chair: Joana Arantes (University of Minho and University of Canterbury)

Effects of Varying the Probability and Availability of Water Delivery Under Reversal Conditions in a Temporally-Defined Schedule. (Experimental Analysis) CARLOS WILCEN VILLAMIL BARRIGA(Universidad de Guadalajara), Carlos Torres (Universidad de Guadalajara), Lizbeth Pulido Avalos(University of Guadalajara)

Abstract: One study was conducted to evaluate the effects of varying probability (p) and availability (T) in water delivery when the values of p and T were systematically reversed in a temporally-defined schedule. Sixteen male albino Wistar rats were divided in four groups with values of 30, 60, 120, y 360 seconds at T cycle. Each group were exposed to a three experimental phases with probability set at 1.0, 0.5 and 0.1. Each phase was divided in three blocks of different availabilities of water delivery (T = 1.0, 0.5 y 0.1). Blocks consisted in 20 sessions of one hour. Each block were followed by five reversal sessions with p=1.0 and T=1.0. The results are examined in relation to the temporally-defined schedules parameters and the local distribution response and water distribution delivery.

Differential Reinforcement Controls the Same Rate as its Variable Ratio Equivalent. (Experimental Analysis) JAMES KOPP (University of Texas at Arlington), Denise Lott Arellano (McNeese State University)

Abstract: Leverpressing was reinforced in six rats during 30 minute sessions. An FR1 schedule was in effect for the first 10 sessions. During the next 40 sessions, a differential reinforcement of response duration (DRRD) schedule selectively reinforced response durations between 600 and 700 ms. During the final 25 sessions, responses were reinforced in the same sequential order as the DRRD schedule, but without regard to duration (a "yoked" variable-ratio reinforcement schedule). Interresponse time distributions were typically platykurtic during FR1 reinforcement. During the DRRD schedule, response durations became clearly differentiated, interresponse times became shorter (rates increased), and the frequency distributions of IRTs became noticeably leptokurtic. During the "yoked" VR schedule, interresponse time distributions were not much different from those produced by the differential reinforcement schedule. In other words, the VR schedule seemed to produce changes in duration independent of the response rates it controlled (or vice-versa). When the differential reinforcement component was eliminated from the schedule (and reinforcement continued at the same rate and in the same pattern), response rates remained unchanged.

Human Performance in the Temporal Double Bisection Procedure. (Experimental Analysis)
JOANA ARANTES (University of Minho and University of Canterbury)

Abstract: Machado and Keen (1999) developed a temporal task called double bisection. Since then, several studies have replicated and extended their original results, but always using pigeons as subjects (Arantes, 2008; Arantes & Machado, 2008; Machado & Arantes, 2006; Machado & Oliveira, 2008; Machado & Pata, 2005). In the present experiment we extended the double bisection task to humans. During training, on half of the trials, participants learned to choose a red square after a 1-s signal and a green square after a 4-s signal; on the other half of trials, they learned to choose a blue square after a 4-s signal and a yellow square after a 16-s signal. During test, signals ranged from 1 s to 16 s and participants chose between the blue and the green squares. Results were compared with those from the animal literature, and contrasting predictions of two important models of timing, Scalar Expectancy Theory (SET) and Learning to Time (LeT), were evaluated.

#523 International Panel Discussion

5/26/2009
9:00 a.m. - 10:20 a.m.
North 122 BC
EDC; Service Delivery
BACB CE Offered. CE Instructor: Erick Dubuque, M.A., BCBA

Professional Development Series: Aspects of Being a BCBA
Chair: Erick M. Dubuque (University of Nevada, Reno)

JOSE A. MARTINEZ-DIAZ (Florida Institute of Technology & ABA Tech)
CHRISTINE L. RATCLIFF (BACB)
ALICIA N. MACALEESE (University of Nevada, Reno)
MELISSA NOSIK (TEAM Centers)

Abstract: As our field continues to grow and expand into many more applied areas, it is becoming increasingly important for practitioners to be held to professional standards. Panelists will discuss some of the important aspects of becoming a Board Certified Behavior Analyst.

#524 Panel Discussion

5/26/2009
9:00 a.m. - 10:20 a.m.
North 121 BC
EDC; Theory

Professional Development Series: Going Beyond Academia: How to Be an Effective Student
Chair: Alyson K Padgett (California State University, Fresno)

MARIANNE L. JACKSON (California State Unversity, Fresno)
GINA GREEN (San Diego State University)
SIGRID S. GLENN (University of North Texas)
MARK P. ALAVOSIUS (University of Nevada, Reno)

Abstract: The purpose of the Professional Development Series "Going Beyond Academia: How to Be an Effective Student" is to disseminate what the field of behavior analysis has to offer current students while they are still in school and encourage them to get involved. The panel will discuss how to seek out opportunities at the program level as well as the state, national, and international levels. It will cover topics from how to get to know your professors and their areas of interest, to programs currently active on the international level. Identifying an instructor, ascertaining projects and research of interest, and getting involved is no easy task, but the new and challenging opportunities will both strengthen a student's background in behavior analysis, and allow students to better market themselves to potential graduate schools and employers. These topics will be addressed in this discussion and provide insight for the student on tackling these challenges and becoming an effective student beyond academia.

#525 Symposium

5/26/2009
9:00 a.m. - 10:20 a.m.
North 122 A
EDC/AUT; Applied Behavior Analysis
BACB CE Offered. CE Instructor: Steven J. Ward, M.A., BCBA

Using "The Inventory of Good Learner Repertoires"
Chair: Steven J. Ward (Whole Child Consulting)
Discussant: Judah Axe (Simmons College)

Abstract: This symposium will include 2 papers that present case studies reviewing the use of "The Inventory of Good Learner Repertoires". These presenters work with a young girl with autism, and an adolescent male with multiple disabilities. The presenters reviewing case studies will discuss learner characterstics, such as rate of acquisition, settings available to their learners, and anecdotal reports of their learners' functioning.

"The Inventory of Good Learner Repertoires" measures a learner's: behavioral excesses, quality of performance in regard to tasks, supports required to maintain safe behaviors, and accomodations required to maintain relatively high quality task-related responding. The results have implications for the advancement of learners into educational settings of a less-restrictive nature, and access to the community. It is argued that access to a wide variety of environments facilitates acquisition and generalization of a variety of functional repertoires.

The third presenter will discuss the use of "The Inventory of Good Learner Repertoires" with several learners, as well as the rationale behind the use of this inventory.

Using "The Inventory of Good Learner Repertoires" with a Young Girl with Autism. JOHNNA R. CONLEY (The Chicago School)

Abstract: The presenter will share information regarding the characteristics and progress of a young girl with autism over several years of intervention. Both quantitative and anecdotal reports will be presented. Specifically, this presenter will compare this learner's performance prior to assessment using "The Inventory of Good Learner Repertoires" with performance after programming was influenced by the outcomes of this inventory. Completion of this inventory led to several modifications in programming, such as an increased emphasis on "respecting 'no'" and "'Yes' functioning as a reinforcer". "The Inventory of Good Learner Repertoires" has implications for the ease with which a learner can be taught and the environments in which those learners can participate. This young girl with autism has become easier to teach since programming has been influenced by "The Inventory of Good Learner Repertoires".

Refocusing Behavior Support Plans to Teach "Good Learner Repertoires". JILL MCLAURY (Circle of Friends/Bright Futures)

Abstract: The presenter will share information about the characteristics and history of an adolescent male with multiple disabilities. This learner temporarily attended school in a public setting, and was removed after behavior excesses led to intrusive interventions. He currently participates in a private school setting, and his programming has been influenced by "The Inventory of Good Learner Repertoires".

This inventory guides practitioners to consider not only the quality of their learner's performance, but also the environmental accomodations necessary to maintain that performance. Both quantitative and anecdotal data will be shared regarding this learner's rate of acquisition and level of functioning prior to assessment with "The Inventory of Good Learner Repertoires". These data will be contrasted with this learner's responding after programming was influenced by his scores on the inventory. The presenter will discuss specific learner repertoires that were addressed as a function of using "The Inventory of Good Learner Repertoires".

"The Inventory of Good Learner Repertoires": Rationale and Effectiveness. STEVEN J. WARD (Whole Child Consulting)

Abstract: This presenter will discuss the rationale behind the creation of "The Inventory of Good Learner Repertoires". This inventory measures a learner's behavioral excesses and the quality of task-related responding while considering the accomodations required to maintain this level of functioning. An emphasis is placed on the quality of learner responding, and on the development of learning contexts that are both effective and natural. This inventory measures the ease with which a given learner can be taught, and has implications for the environments in which they can learn.

This presenter will share data regarding instructional efficiency for several learners prior to and following assessment with "The Inventory of Good Learner Repertoires". Progress will be discussed in terms of rate of acquisition and successive approximations to typical learning in natural environments. This presenter will review specific interventions that resulted from assessment with this inventory for several learners. The relationship between these targets and levels of learner functioning will be discussed.

#526 International Symposium

5/26/2009
9:00 a.m. - 10:20 a.m.
North 121 A
EDC/DDA; Applied Behavior Analysis

Establishing Behavior Analysis in the Public Schools; Lessons Learned the Hard Way
Chair: Timothy M. Weil (University of South Florida)

Abstract: The struggle to control and manipulate maladaptive behaviors in the school district has met many obstacles. In the past, a train and hope method was utilized, with little behavior change as an effect. It is our goal to disseminate behavior analytic skills to Washoe County Staff by implementing multiple tiers of ABA services within the district. One approach is to train staff using a pyramidal design, to effectively teach students. Another approach is to provide consultants to classrooms to help with behavior management. Also, behavior analytic approach was utilized to aid in the acquisition of social skills. The last study investigated a school-wide intervention.

Getting Reading to Teach: Teacher Training in the Self-Contained Classroom. BRIGHID H. FRONAPFEL (Washoe County School District), Christine O'Flaherty Miller(Washoe County School District), Kristen Luchetti (Washoe County School Distrtict), Trish Shaffer (Washoe County School District)

Abstract: A tiered system was utilized to train staff on various targets including classroom set-up, behavioral supports, group instruction, data collections, and the conduction of functional assessments. The targets were divided into three training phases, based on their sophistication. Staff began training in Phase 1, and upon demonstrating mastery, entered into Phase 2. When mastery criterion was met in Phase 2, staff entered into Phase 3. Reinforcement for successful completion of each phase was delivered by the experimenters in the form of certificates and group emails. Data was collected on staff behavior (compliance and follow-through), the completion of training phases, and the percentage of appropriate engagement of the classroom staff.

Getting Ready to Learn: Classroom Behavior Management in the Self-Contained Classroom.
THOURAYA AL-NASSER (Washoe County School District), Jody M. Silva (Washoe County School District)

Abstract: Research indicates that effective classroom consultations should include on-site technical assistance two to four times per month (Northup, Wacker, Berg, Kelly, Sasso & DeRaad, 1994), as well as school principal's involvement of visiting classrooms, emphasizing achievement and training as well as supporting the teachers (Gillat & Sulzer-Azaroff, 1994). The focus of staff training worked on including the principals, teachers, and school staff to observe a model Day Treatment program, read the program manual, and implement language specific feedback to the students. The staff were required to record the students' responses on their point sheets. The point sheets also served as a measure of student behavioral change. The consultants also modeled effective strategies in the classroom, as well as provide feedback via email and clinical meetings.

Getting Ready to Interact: Peer-Related Behavior Interaction in the Self-contained Classroom.
KAYCEE BENNETT (Washoe County School District), Timothy C. Fuller (Washoe County School District), Elizabeth Sexton (University of Nevada, reno), Jody M. Silva (Washoe County School District), Thouraya Al-Nasser (Washoe County School District)

Abstract: Second Step is a violence prevention curriculum that integrates academics with social skills training. It was designed for use in classrooms for preschool students through middle school students. While it is evidence-based and has been evaluated by professionals and has been approved for funding by federal agencies, most of the data collected has been survey data. Few studies have evaluated the behavioral outcomes of the program, and those that have operationalized behavioral variables have done so using vague verbal constructions to evaluate the behavioral impact. The present study will evaluate the behavioral outcome of the students in a social intervention program (SIP) classroom who are being taught using the Second Step curriculum. The SIP program was patterned after the day treatment program (an educational setting for students with mental health issues as well as behavioral issues) in the Washoe County School District. Students are enrolled in this program after extensive evaluation. The program is designed to reduce problem behavior (e.g., blurting out in class, out of seat time, verbal aggression, and physical aggression). The present study will look at the use of Second Step in reducing problem behavior in the SIP classroom at an urban elementary school.

Getting Ready to Implement School-wide Strategies.
SHARLET D. BUTTERFIELD (University of Nevada, Reno), Gregory Golvan (Washoe County School District), Donald A. Jackson (University of Nevada, Reno)

Abstract: Investigation of the establishment of School-wide positive behavior support in a public school setting. Data was collected on the number of school suspensions, detentions, and the number of office discipline referrals. Data will also be presented on the extent to which school-wide positive behavior support has been established across schools in the school district.

#527 Paper Session

5/26/2009
9:00 a.m. - 10:20 a.m.
North 221 AB
OBM

Research in Simulated Work Environments
Chair: Scott A. Herbst (University of Nevada, Reno)

Comparing Digital and Paper Checklists with and without Feedback in Simulated Flight (Applied Behavior Analysis) William Gene Rantz (Western Michigan University), RON VAN HOUTEN (Western Michigan University)

Abstract: This study examined whether pilots completed airplane digital or paper checklists more accurately when they received post-flight graphic and verbal feedback. Participants were 6 college student pilots with instrument rating. The task consisted of flying flight patterns using a Frasca 241 Flight Training Device which emulates a SR20 Cirrus aircraft. The main dependent variable was the number of checklist items completed correctly per flight. A multiple baseline design across pairs with reversal was used. During baseline, the average number of correctly completed items per flight using the paper checklist varied considerably across participants, ranging from 6 to 42 out of 70. While the average number of correctly completed items per flight using the digital checklist, ranging from 3 to 44 out of 70. The average number of correctly completed items for both paper and digital checklists increased to near perfect levels for all participants after they were given feedback and praise, and remained high after the feedback and praise were removed. Visual inspection of the data suggests that within individuals, paper checklist accuracy does not differ significantly from digital

Employee-of-the-Month Programs: Do They Really Work? (Applied Behavior Analysis) DOUGLAS A. JOHNSON (Western Michigan University)

Abstract: Employee-of-the-Month (EOM) is one of the most popular forms of recognition in organizations, with numerous popular management books recommending the practice. Despite its popularity in both press and practice, there are a number of individuals who argue against the use of EOM programs. However, both proponents and opponents of EOM programs make their arguments based on assumptions. Proponents claim that being a runner-up will have a motivating effect which will cause employees to try harder in order to obtain the outcomes they see given to the winner. Opponents claim the opposite, stating that employees will become apathetic due to failing to receive the desired outcome. Ultimately, whether EOM inspires or extinguishes performance can best be answered through empirical means. This paper will present two empirical studies that investigated if Employee-of-the-Month as a motivational technique improved performance across time as well as the effects of being a runner-up within an EOM program. A computerized data entry task was used to measure performance using a within-subject multiple baseline across participants design as participants competed for a "Check Processor of the Week" incentive.

The Effects of Job Demands and Job Control on Measures of Strain in a Simulated Work Envirnonment. (Experimental Analysis) SCOTT A. HERBST (University of Nevada, Reno), Ramona Houmanfar (University of Nevada, Reno)

Abstract: The job demands/job control model of occupational strain predicts that increasing an employee's control of his or her work environment will moderate the effects of increased demands on experienced strain. This effect has been shown in large scale survey research as well as experimental group designs. The present study expands on this research by employing a within subject design in a simulated work environment. Experiment I replicated prior findings by employing a 2X2 design in which participants engaged in task in which they ordered puzzle pieces according to a model. In high control conditions, participants were able to choose between the model appearing fewer times for a greater duration each time or more times for a shorter duration each time. Experiment II examined the effects

of awarding points (exchangeable for money) for accurate performance against a fixed time schedule of point delivery. Self report and physiological measures of strain are presented in addition to performance and condition preference data.

#528 International Paper Session

5/26/2009
9:00 a.m. - 10:20 a.m.
North 129 B
TBA

Strategies and Tactics to Teach Behavioral Principles to Public School Educators and Graduate Psychology Students
Chair: Meagan Boyd Medley (Mississippi State University)

Training Teachers to Assess the Challenging Behaviors of Students with Autism Using Video Tele-Conferencing. (Applied Behavior Analysis) WENDY A. MACHALICEK (Portland State University), Mark F. O'Reilly (University of Texas at Austin), Russell Lang (University of Texas at Austin), Mandy J. Rispoli (University of Texas at Austin), Tonya Nichole Davis (Baylor University)

Abstract: We examined the effects of performance feedback provided via video tele-conferencing (VTC) on the acquisition of functional analysis procedures by six teachers. A university supervisor used VTC equipment (i.e., computers equipped with web cameras and Internet) to provide feedback to teachers learning to implement functional analysis conditions (i.e., escape, attention, and play) with students with autism. Multiple baseline designs across teacher-student dyads with embedded multi-element designs were used to evaluate the effects of performance feedback delivered via VTC on the percentage of functional analysis procedures implemented correctly. Results indicated that teachers learned to implement functional analysis conditions following training (M duration of training=75 minutes; range=60-95 minutes). Results were maintained for a number of weeks following the termination of performance feedback (M=5 weeks; range=4-9 weeks), but teacher performance declined thereafter. Video conferencing technology may provide supervisors an efficacious way to deliver performance feedback to teachers learning research-based strategies.

Data-Based Decision Making for RtI Professional Development and Technical Assistance. (Service Delivery) MEAGAN BOYD MEDLEY (Mississippi State University), Holly V. Adkins (Louisiana State University), Kristin N. Johnson-Gros (Eastern Illinois University)

Abstract: This presentation aims at addressing Response to Intervention Professional Development and Technical Assistance methods where data-based decision making influences future assistance. It will examine a method of data analysis to drive changes in Professional Development and Technical Assistance in Mississippi with state policy mandating a three tier instructional model (Response to Intervention). Over 200 educators and administrators participated in the sessions. Data collection included pre and post assessment of knowledge and acceptability. Pre and post data analysis via a MANOVA procedure will be discussed as well as recommendations for change concerning the Professional Development and Technical Assistance institute. Participants will benefit from this session in that they will be presented how an ever-changing series of Professional Development and Technical Assistance effectively uses data analysis in decision making and programming efforts for future training's with an overall goal of teaching educators and administrators and therefore aiding in betterment of the education of children within the state of Mississippi.

Why Behavior Analysis is so Hard for Students to Learn. (Applied Behavior Analysis) JOHN B. CONNORS (Canadian University College)

Abstract: Students often have preconceived notions of how psychology should look from the popular media. My experience in teaching a course on Behavior Modification and one on Learning indicates that students typically think that Behavior Analysis is either too difficult or too simplistic and so find if

difficult to apply concepts to thir own personal life. I will review which concepts are difficult to teach and demonstrate how to help students master the basics and learn how to apply them.

#529 Symposium

5/26/2009
9:30 a.m. – 10:50 a.m.
North 132 BC
DEV; Theory

Using Hierarchical Complexity to Determine How "Smart" Animals Are
Chair: Darlene E. Crone-Todd (Salem State College)
Discussant: Kirsti Rinkus (University of California at Irvine)

Abstract: A problem in comparative psychology is the lack of a good systematic method for comparing how "smart" different animals are. In this symposium we propose a general model for approaching this problem . The first presentation introduces the Model of Hierarchical Complexity and describes its utility in this area. Within the model, tasks can be ordered as to their hierarchical complexity. Stages of the animal may be determined by successful completion of the ordered task in a non-arbitrary manner. An animal species is characterized by the highest stage of performance observed with any amount of training on it best task series. The second presentation examines various animals performing sentential stage 5 actions . The task performance of African grey parrots and crows are used to illustrate the usefulness of the Model of Hierarchical Complexity in determining "how smart" they are. The third presentation examines animals performing preoperational stage 6 sequences. The task performance of Rhesus Monkeys is compared to that of preschool children. Concluding the symposium, there will be a general discussion of the usefulness of the Model of Hierarchical Complexity for comparing animal behavior and it's possible relevance to future endeavors in this area.

Using Hierarchical Complexity to Determine How "Smart" Animals Are. MICHAEL LAMPORT COMMONS (Harvard Medical School), Patrice Marie Miller (Salem State College)

Abstract: A problem in comparative psychology is the lack of good way to compare how "smart" different animals are. Here, we set forth a general and powerful means. The Model of Hierarchical Complexity (MHC) posits that tasks can be ordered as to their hierarchical complexity. The Model also may measure the stages of animal behavior on this absolute scale. It does so by taking the actions that animals and humans engage in, and ordering them. Stage of performance has the same number and name as the corresponding order of hierarchical complexity of the task it correctly completes. An animal species is characterized by the highest stage of performance observed with any amount of training on it best task series. Some animals perform up to the concrete stage, about what 8 to 10-year-old children do. Examples at the sentential stage 5 and preoperational stage 6 show how the Model of Hierarchical Complexity can be used to show how "smart" different animals are.

Sentential Stage 5. MICHAEL LAMPORT COMMONS (Harvard Medical School), Patrice Marie Miller (Salem State College)

Abstract: African grey parrots utter and understand two-word sentences indicating a meaning that cannot be expressed with one word (Pepperberg, 2000). This includes numbers, signs, and utterances that may be said in order. When Alex counted two objects, "one, two" such multi-word utterances reflect a non-arbitrary organization of nominal labels and words. In fact, Alex said numbers up to 6 in order. Weir, Chappell & Kacelnik (2002) observed New Caledonian crows performing a sentential stage 5 sequence of two nominal stage 4 representations. The first nominal stage 4 action is seeing the bend in the tube as an obstacle to using a straight wire. This requires a sensory-motor stage 3 conceptual action of the crow seeing the wire as a pusher of food out of the tube. The crow then looks at the bend in the tube and then bends a wire. Making the bent tool is the second nominal stage 4 task, representing the concept of the bend. Sticking the bent wire into the bent tube and snaking it around the bend is the next

action. Reaching the food and getting it is the last action. The non-arbitrary organization of the nominal stage actions into a more complex action places it at the sentential order of complexity.

Preoperational Stage 6. PATRICE MARIE MILLER (Salem State College), Michael Lamport Commons (Harvard Medical School)

Abstract: Preoperations takes actions that are at the sentential order and organizes them. In some animals or preschoolers this may be seen when they apply ordinal rules to novel numerosities of objects in a line, that is counting, as seen in children and monkeys. In children, the objects in rows may be counted. The last count may be called 5, five, cinco, etc. Brannon & Terrace (1999) trained Rhesus Monkeys to respond to the larger number of symbols (e.g. square, circle in a two line display; displays of different numbers of objects ranged from 1 to 4. Also, at the preoperational order, chimps have been observed to put nuts onto flat stones, called anvil stones, and hit them with smaller stones, called hammer stones, to crack them. This was categorized as being at the preoperational order because it is a (story-like) sequence that is tied to reality: get a stone that would seem to work as a hammer stone, get a stone that would seem to work as an anvil stone, put nut on the anvil stone and whack it with the hammer stone.

#530 Invited Presenter

5/26/2009
10:00 a.m. - 10:50 a.m.
West 301 AB
DDA
BACB CE Offered. CE Instructor: Iser Guillermo DeLeon, Ph.D.

Is Giving Stuff Away such a Good Idea? Translational Explorations on Some Effects of NCR
Chair: Joel Eric Ringdahl (University of Iowa)

ISER GUILLERMO DELEON (Kennedy Krieger Institute)

Iser DeLeon received his B.A. and Ph.D. degrees from the University of Florida, deviating along the way to pick up an M.A. at Western Michigan University. Currently, he is the Director of Research Development for the Department of Behavioral Psychology at the Kennedy Krieger Institute; Associate Professor of Psychiatry and Behavioral Sciences at the John Hopkins University School of Medicine; and holds adjunct appointments at several other universities including the University of Maryland, Baltimore County for which he serves as Co-Director of the Behavior Analysis graduate program. Dr. DeLeon is a Board Certified Behavior Analyst, past president of the Maryland Association for Behavior Analysis, and serves on the editorial boards of several journals including the *Journal of Applied Behavior Analysis*, for which also served as Associate Editor. Dr. DeLeon began his career in behavior analysis conducting non-human laboratory research, later shifted to clinical settings for persons with developmental disabilities, and has been striving to bridge the basic-applied continuum ever since. He is the recipient of several recent NIH grants that reflect the translational nature of this work by importing findings of basic research towards the understanding of clinical concerns in children with disabilities.

Abstract: Response-independent delivery of reinforcers (noncontingent reinforcement or NCR) has grown increasingly popular in our literature on treating the behavior disorders of individuals with developmental disabilities. Positive therapeutic effects are the norm, albeit in the context of circumscribed evaluations using brief treatment sessions. Applied researchers have considered some potential side effects of NCR (e.g. the possibility for adventitious reinforcement, motivational decrements that impede acquisition of alternative behavior), and have suggested ways to avoid them. However, our basic literature suggests a variety of additional ways in which NCR can complicate matters; processes that have only been sporadically investigated by applied researchers. This presentation will lay out implications of several such processes, including: 1) reinstatement effects related to the discriminative function of reinforcers, 2) phenomena related to incentive shifts in which dense NCR schedules can arrange aversive (escape-inducing) circumstances, 3) behavioral

momentum effects stemming from overlaying supplemental reinforcers on ongoing reinforcement for problem behavior, and 4) value-altering effects related to the amount of effort historically required to produce reinforcement. The presentation will then offer a sampling of data from investigations specifically designed to determine the extent to which we should worry about observing such effects in clinical contexts with individuals with developmental disabilities.

#531 Symposium

5/26/2009
10:00 a.m. – 11:20 a.m.
North 131 A
CSE; Service Delivery

A Dream Realized: Indiana's Innovative Approach to Building Community Capacity
Chair and Discussant: William Timothy Courtney (Columbus Org.)

Abstract: Until the late 1990's many of Indiana's citizens with developmental disabilities lived in large state operated institutions. However, Indiana recognized the rights of these individuals to live, work, and play in their communities. By 2001 two institutions had been closed and hundreds of individuals with intellectual and developmental disabilities were now being supported in homes throughout the state. Between 2001 and 2007, an additional 475 persons from the final two institutions moved to community homes, closing these two facilities. These individuals had complex medical and/or behavior needs and, in many cases, presented new and unique challenges to community providers. One of Indiana's approaches to assist community providers to support these individual was the implementation of Outreach Services. A statewide and state-operated Outreach Team combines state and contract staff with expertise in providing services to individuals with intellectual and developmental disabilities through services that include consultation, technical assistance, training and limited back up services. Outreach functions to build community capacity through preventive and proactive strategies.

Developing a State Funded Model to Promote Best Practice. ANN M. BALOSKI (Outreach of Indiana)

Abstract: Stemming from the state deinstitutionalization, which began in 1994, the state of Indiana has undergone much change within the field of developmental disability services: developing legislative and cost sensitive solutions that can serve as a model for other states. The development of Outreach Services of Indiana in 2002 was the first step to building community capacity for individuals leaving the state operated facilities. This program was expanded in June of 2005 to assist anyone with a developmental disability living within the state. Through Outreach Services residents of Indiana can access both free trainings designed to expand the knowledge base of practitioners within the field of I/DD Services and free direct consultation with a Board Certified Behavior Analyst or other specialist. In 2007 Outreach Services tripled its capacity to address the increase in number of individuals referred. With a focus on best practice, this approach has yielded a maximum benefit for individuals and practitioners with in the state. By starting out with funding from the closure of the state operated facilities, utilization of private contracts and federal matching funds, the overall cost of the service is greatly reduced, making this model a cost effective and clinically appropriate option.

The Nuts and Bolts of Outreach Behavioral Consultations and Training. WILLIAM TIMOTHY COURTNEY (Columbus Org.)

Abstract: Outreach Services of Indiana recommends conceptually systematic, and empirically validated, interventions to inter-disciplinary teams (IDT) dealing with difficult behavior. Outreach behavioral consultations include record reviews, interviews, and direct observations. Recommendations are presented directly to the IDT. Staff training and/or additional training for implementing recommendation occurs frequently if deemed necessary by the IDT or the Outreach behavioral consultant. Outreach provides consultative services to teams with or without behavioral services. This paper presents examples of recommendations that improved the quality of life for individuals exhibiting decel behavior. Case analyses, testimonials, and graphed data support Outreach services as an effective

model for supplementing behavioral services and directing inter-disciplinary teams that are not receiving behavioral services. Presented data is based upon ongoing data collection systems in waiver settings, group homes, and family homes. Outreach behavioral referrals have increased dramatically, from 86 referrals delivered between September of 2002 and July of 2007, to 260 referrals occurring between July of 2007 and September of 2008. Outreach's behavioral team consists of 4 BCBAs and 1 licensed psychologist.

A Great Team Outreach Consultation and Behavior Clinicians in the State of Indiana.
KENDALL R. NELSON (Alternative Counseling Associates)

Abstract: Behavior consulting in Indiana has come along ways since its recent beginnings. Outreach behavioral services increases the effectiveness of this service through consultations and education. This paper presents a brief summary of the history of behavior consulting in Indiana, the state of behavioral consulting currently, and a brief discussion about the future. The current plan for the future includes movement toward licensure for behavior clinicians and steps to achieve this goal are currently in process. Outreach consultation is a key aspect of the current model of service delivery. This paper includes case studies in which Outreach behavior consulting improved delivery of behavioral services. Two female participants ages 34 and 39, living in a group home and waiver setting respectively, served as the subjects for the case studies. The case study includes collected data on aggression and verbal aggression that occurred prior to, and following Outreach consultation. The data supports with a fair degree of validity that Outreach is effective at supporting behavior clinicians.

#532 International Special Event

5/26/2009
10:00 a.m. - 11:20 a.m.
West 301 CD
VRB/TPC; Theory
BACB CE Offered. CE Instructor: William M. Baum, Ph.D.

Behavior Analysis of Rule-Governed Behavior: Contrasting Views
Chair: Matthew P. Normand (University of the Pacific)

WILLIAM M. BAUM (University of California, Davis)
HANK SCHLINGER (California State University, Los Angeles)
CARMEN LUCIANO SORIANO (University Almería, Spain)

Dr. William M. Baum received his A.B. in psychology from Harvard College in 1961. Originally a biology major, he switched into psychology after taking courses from B. F. Skinner and R. J. Herrnstein in his freshman and sophomore years. He returned to Harvard University for graduate study in 1962, where he was supervised by Herrnstein and received his Ph.D. in 1966. He spent the year 1965-66 at Cambridge University, studying ethology at the Sub-Department of Animal Behavior. From 1966 to 1975, he held appointments as post-doctoral fellow, research associate, and assistant professor at Harvard University. He spent two years at the NIH Laboratory for Brain, Evolution, and Behavior, and then accepted an appointment in psychology at University of New Hampshire in 1977. He retired from there in 1999. He currently has an appointment as Associate Researcher at University of California – Davis and lives in San Francisco. His research concerns choice, molar behavior-environment relations, foraging, and behaviorism. He is the author of a book, Understanding Behaviorism: Behavior, Culture, and Evolution.

Dr. Hank Schlinger earned his B.S. and M.A. in Psychology from Southern Methodist University in his hometown of Dallas, Texas, and, after living in Europe (mostly Germany) for three years, enrolled in the Ph.D. program in behavior analysis at Western Michigan University where he received his Ph.D. (with Jack Michael), and then completed a two-year post-doctoral fellowship in behavioral pharmacology (with Al Poling). Hank was a

tenured, full professor in the Psychology Department at Western New England College in Springfield, Massachusetts, when, finally fed up with long, gray, dark winters, he moved to Los Angeles, in part to pursue his musical interests (see www.hankschlinger.com). He is now Director of the Graduate ABA Program in the Psychology Department at California State University, Los Angeles. In addition to his scholarly work in behavior analysis, Hank has written and spoken on a variety of topics outside behavior analysis, including behavior problems in children, consciousness, intelligence, evolutionary psychology, and theory and methodology in psychology. He is dedicated to promoting and disseminating the science, theory and practice of behavior analysis. He lives with his wife, Julie Riggott, an editor and writer, in the quiet, serene hills of Burbank, California.

Dr. Carmen Luciano is Full Professor of Psychology (1995-present) at the University of Almeria, Spain, following a long period at the University of Granada from 1979 to 1994. She received her doctoral degree from the Universidad Complutense, Madrid in 1984. She got a Post-doc-Fulbright fellowship at Boston University and the Cambridge Center for Behavioral Studies (USA) to do research on the emergence of novel behavior in 1985. She has published over 100 papers and 50 chapters/books. She has graduated 18 students and has been the director of the research group in Experimental and Applied Analysis of Behavior since 1986. Among the most relevant aspects of her publications are those related to emerging new and complex verbal behavior, the research conducted on transformation of functions related to several complex behavior and those focused in the analysis of clinical methods defining the Acceptance and Commitment Therapy with several books on this advanced approach to Clinical Psychology, (the ACT case-studies book in 2001, the ACT book with Kelly Wilson in 2002, and the ACT book focused on Pain with Dahl, Wilson and Hayes in 2004.

Abstract: The proper analysis of verbal stimuli commonly called "rules" or "instructions" continues to be a subject of debate among behavior analysts. In this panel, three prominent behavior analysts will each briefly present their analysis of rules and rule-governed behavior. A moderated discussion among the panel members will follow, along with an open question and answer period with the audience.

#533 Panel Discussion

5/26/2009
10:30 a.m. - 11:20 a.m.
North 129 A
DDA/OTH; Service Delivery
BACB CE Offered. CE Instructor: Jim Johnston, Ph.D., BCBA

Association of Professional Behavior Analysts Update
Chair: James M. Johnston (Auburn University)

GERALD L. SHOOK (Behavior Analyst Certification Board)
RAYMOND G. ROMANCZYK (Institute for Child Development)
JOSE D. RIOS (BehaviorLogix, Inc.)

Abstract: The Association of Professional Behavior Analysts is an organization with a primary mission of supporting the interests and needs of ABA practitioners. This poster will highlight activities and accomplishments to represent the interests of BACB-credentialed and other professional behavior analysts to provide upport and resources to BACB-credentialed professional behavior analysts; to work with federal, state, governmental, and third party entities to enhance recognition of BACB-credentialed professional behavior analysts; to work with federal, state, governmental, and third party entities to support the needs of BACB-credentialed professional behavior analysts; to provide education opportunities to BACB-credentialed professional behavior analysts to provide resources to professionals in other fields and to consumers of behavior analytic services concerning the practice of applied behavior analysis; to bring professionals, consumers, and vendors together at national and regional meetings; to support improvements in and access to services provided by BACB credentialed professional behavior analysts; and to promote public understanding of the professional practice of behavior analysis.

#534 Symposium

5/26/2009
10:30 a.m. - 11:50 a.m.
North 124 B
AUT/EDC; Applied Behavior Analysis

Interventions to Improve the Language Skills of Young Children with Developmental Disabilities
Chair and Discussant: Peter Sturmey (Queens College, CUNY)

Abstract: The following symposium will examine interventions to improve manding skills of children with autism. The first talk will discuss the efficacy of using prompting, fading, and differential reinforcement on vocal mands in non-vocal children with autism. Results of this study indicate that training was effective in increasing independent vocal mands and decreasing immature immature mands. The second talk examines the effects of behavioral skills training on correct staff implementation of Natural Language Paradigm (NLP) and child vocalizations. The third study that will be discussed is an extension of the second study and examined the effects of Behavioral Skills Training and General Case Teaching on staff performance of NLP with addition of a chaining component and child vocalizations. Both staff training studies found large increases in staff correct performance and decreases in idiosyncratic staff errors following intervention and increases in appropriate vocalizations in most child participants.

The Effects of Prompting, Fading, and Differential Reinforcement on Vocal Mands in Non-verbal Preschool Children with Autism Spectrum Disorders. BENJAMIN R THOMAS (Queens College), Michael Lafasakis (HCHC Inc./Queens College ABA), Peter Sturmey (Queens College, CUNY)

Abstract: There are few procedures to teach non-vocal children vocal mands. This study evaluated the effects of prompting, fading, and differential reinforcement on eye contact, pointing, vocal approximations, independent requests and immature mands in three children with Autism Spectrum Disorders who in baseline emitted almost no independent vocal mands. This procedure resulted in a large and socially valid increase in independent vocal mands, other appropriate responses and near elimination of immature mands.

Behavior Skills Training and Natural Language Paradigm: The Effects of Correct Teacher Implementation of Natural Lanugage Paradigm on Child Vocalizations. STAMATIOS GIANOUMIS (Children's Home Intervention Program), Michael Lafasakis (HCHC Inc./Queens College ABA), Laura J. Seiverling (The Graduate Center and Queens College, CUNY), Peter Sturmey (Queens College, CUNY)

Abstract: A behavioral skills training package was used to train teachers to implement Natural Language Paradigm (NLP) teaching procedures with 3 preschool children with autism. Results indicated training served to increase correct teacher performance and reduce errors systematically across all three teachers during NLP teaching sessions. Correct teacher performance increased with children for whom teachers did not directly receive training. Further, increased correct teacher performance served to increase appropriate vocalization and decrease maladaptive behavior across children they worked with during session. Data indicate that behavioral skills training was effective in training teachers in the generalized implementation of complex NLP teaching procedures across children.

The Effects of Behavioral Skills Training and General Case Teaching on Staff Performance of Natural Language Paradigm and Child Vocalizations. LAURA J. SEIVERLING (The Graduate Center and Queens College, CUNY), Peter Sturmey (Queens College, CUNY), Maria Pantelides (Queens College, City University of New York), Henry Ruiz (Queens College, City University of New York)

Abstract: This study used Behavioral Skills Training (BST) and General Case Training (GCT) with the experimenter simulating child performance to teach 3 staff how to conduct NLP with a chaining component to increase vocal successive approximations in 3 children with autism. Staff increased and

maintained their NLP correct performance during post-training in comparison to baseline. Two out of 3 children showed increases in vocal successive approximations for stimuli following training and when comparing pre-baseline and post-treatment vocal assessments. This study demonstrated that BST and GCT were effective in training NLP with a chaining component. The inclusion of pre-baseline and post-treatment child vocal assessments as well as treatment integrity and social validity measures were also contributions of this study.

#535 Symposium

5/26/2009
10:30 a.m. - 11:50 a.m.
North 126
AUT; Service Delivery

Every Child Deserves a Voice: Increasing Access to Behavioral Interventions for Children with Autism
Chair: Nicole Zeug (Easter Seals North Texas)
Discussant: David A. Celiberti (Association for Science in Autism Treatment)

Abstract: At-risk families often do not access high quality services for their children with autism. This can be due to a myriad of factors (lack of resources, inability to navigate the social service systems, immigration status, etc.). In 2007, Easter Seals North Texas and the University of North Texas were awarded a state contract to provide evidence-based autism interventions grounded in behavioral construct and methods. In particular, the program serves children whose families are considered "at-risk" for a number of reasons (poverty, mental illness, homelessness, etc.). The purpose of this symposium is to present an overview of the program, to describe intervention fidelity approaches, and to present preliminary program evaluation data. Data indicate that the program has been successful in increasing access to effective interventions for children with autism: the voices of children with autism whose families are at risk are being heard.

An Overview of Easter Seals North Texas: The Autism Treatment Program. NICOLE ZEUG (Easter Seals North Texas), Jennifer Friesen (Easter Seals North Texas), Shahla S. Ala'i-Rosales (University of North Texas), Jesus Rosales-Ruiz (University of North Texas), Alicia ReCruz (University of North Texas), Bertina Combes (University of North Texas)

Abstract: This presentation will present an overview of a unique program developed by Easter Seals North Texas and the University of North Texas and funded through an award granted by the State of Texas: the Autism Treatment Program (ATP). ATP began offering behavioral interventions to children between the ages of 3 to 8 years in April of 2008. This presentation will describe qualifying criteria (risk factor analysis and sliding scales), the array of services offered (comprehensive assessments, parent training, individualized intervention plans in multiple domains, EIBI and after school support) and the collaborative approach across interventionists (BCBAs, BCBAs in training, para-professionals, Speech-Language Pathologists, Occupational Therapists, Physical Therapists, and Audiologists). Because of the at-risk population the program also involves active participation of a Social Worker and frequent professional consultation with PhD level behavior analysts. Furthermore, regional needs require consultation with professionals with expertise in cultural context and responsiveness. The nature of the program is collaborative and therefore requires consultation with professionals in public school and special education contexts. All Easter Seals ATP staff and consultants work together to ensure that every child receives interventions dedicated to maximizing his or her abilities to live, learn and play.

Monitoring Intervention Fidelity: Quality and Quantity. MEGAN GEVING (University of North Texas), Claire Anderson (University of North Texas), Nicole Zeug (Easter Seals North Texas), Sara M Weinkauf (University of North Texas), Shahla S. Ala'i-Rosales (University of North Texas), Jesus Rosales-Ruiz (University of North Texas)

Abstract: Early and intensive behavioral intervention outcome research offers a set of descriptions regarding critical intervention elements. This study was designed to develop an observation system that

incorporates and expands on commonly suggested variables that may be important to the success of EIBI programs. These measures include learn units, instructional domains, teaching formats, material access and engagement, and quality of interventionist-child interactions. Additionally, parent, teacher and child evaluation of teaching sessions were assessed using social validity methods. It is proposed that this observation system can be used by supervisors to monitor interventions from a variety of disciplines. It is also an additional step towards insuring that all children, regardless of life circumstances, have access to quality services.

Evaluating Program Effectiveness. LASHANNA BRUNSON (University of North Texas), Malika N. Pritchett (University of North Texas), Shahla S. Ala'i-Rosales (University of North Texas), Nicole Zeug (Easter Seals North Texas), Jesus Rosales-Ruiz (University of North Texas)

Abstract: The results of ATP program effectiveness during the period of May 2008 and May 2009 will be presented. The data include 1) demographics and program features; 2) general functioning, and 3) program progress measures. Program features include client and staff demographics (age, race, ethnicity, risk factors, etc), direct therapeutic contact hours (across all disciplines), indirect support hours (consultation, training), fees for services, staff salaries, costs per hour, staff and community involvement, staff and client attendance and satisfaction, and state auditing results. General functioning includes periodic assessments of children and families in the natural ecology of the home and community and on non-curricular formal assessments. Program progress measures include the number of active teaching programs, the number of SDs mastered, and progress on curriculum-based measures and IPP goals. It is proposed that all programs serving children with autism, regardless of parent ability to advocate, should include accountability methods and are ethically bound to evaluate program effects.

#536 International Panel Discussion

5/26/2009
10:30 a.m. - 11:50 a.m.
North 128
AUT/DDA; Applied Behavior Analysis
BACB CE Offered. CE Instructor: Richard Foxx, Ph.D., BCBA

Residential Program Models for Adolscents and Adults with Aggressive and Other Challenging Behaviors
Chair: Richard M. Foxx (Pennsylvania State University)

SHARON E. BAXTER (The Children's Foundation)
CARLOS V. GONZALEZ (Behavioral Services of Tennessee)
CLAYTON R. CEA (Behavioral Services of Tennessee)

Abstract: Some adolescents with severe aggressive and other challenging behaviors cannot live with their families because of the multitude of problems that they present. Adults displaying these behaviors often fail in residential settings because of low quality behavioral programming. This panel will present two related models for providing high quality residential programming for adolescents and adults. The Canadian model was developed for adolescents with autism and the US model for adults with autism and developmental disabilities. In both models, behavioral principles were utilized to develop comprehensive staff management, treatment, and data collection systems. The discussion will include the factors that led to the creation of the models, the development of the models, the sources of the funding, and an evaluation of each model's success. Special emphasis will be given to difficulties encountered in establishing the models and to the strategy for ensuring their survival. Factors that contributed to success will be identified and discussed.

#537 Symposium

5/26/2009
10:30 a.m. - 11:50 a.m.
North 124 A
AUT/CBM; Applied Behavior Analysis
BACB CE Offered. CE Instructor: Linda Heitzman-Powell, Ph.D., BCBA

Training for Parents of Young Children with Autism
Chair: Debra M. Kamps (Juniper Gardens Children's Project)

Abstract: Early, intensive intervention for young children with autism is essential for improving child outcomes and development. Parents are critical intervention agents and require systematic training. This collection of studies presents four programs of parent training. Training structures consist of (a) distance learning, web-based instruction and experiential training in clinical settings and at job sites, (b) traditional clinical models, and (3) training using in home delivery of intervention. Content and experiences across programs were designed to teach autism characteristics including basic screening information, applied behavior analysis, and parent child interaction strategies including intervention designed to increase eye contact and play behavior and those to decrease inappropriate behaviors. Outcomes vary across programs and include (1) pre to posttest mastery of skills, (2) data on fluency of trainees and parents, and (3) child improvement in skills such as eye contact and compliance, and (4) decreases in inappropriate behaviors. Implications for parent training and increasing the numbers of quality service providers for young children with autism will be discussed.

Disseminating Effective ABA Training to Parents of Children with Autism in Geographically Remote Areas. JAY FURMAN BUZHARDT (University of Kansas), Linda S. Heitzman-Powell (University of Kansas), Todd Miller (University of Kansas), Rachel L. White (University of Kansas), Brian Cohn (Unversity of Kansas)

Abstract: The prevalence of autism in America is reaching epidemic proportions. Training parents to implement ABA interventions can result in positive and sustainable child outcomes. However, limitations imposed by geographical location prohibit many families from accessing effective training. Our 16-week distance training program attempts to remove geographical location as a barrier to effective ABA training. The program combines interactive web-based training modules and assessments with live supervised sessions in which trainees practice ABA techniques with their children while receiving feedback from a trained clinician at a distant site via video-conferencing technology. Training effectiveness was evaluated using a multiple-baseline design across six families with a young child (2-5 years old) diagnosed with an ASD within 12 months of participation. Outcome data include parent outcomes on pre- to posttest skill mastery and knowledge assessments, and intra-training skill mastery and knowledge assessments; child outcomes on the Autism Treatment Evaluation Checklist, Early Communication Indicator, Vineland, and parent-reported challenging behaviors. The implications of disseminating effective distance ABA training for families of newly diagnosed children in remote areas will be discussed.

Web-Based and Experiential ABA Training for Service Providers for Young Children with Autism. LINDA S. HEITZMAN-POWELL (University of Kansas), Debra M. Kamps (Juniper Gardens Children's Project)

Abstract: Early, intensive intervention for young children with autism is essential for improving child outcomes and development. The Autism Training Program at the University of Kansas, Life Span Institute provides a four week training program for service providers for children with autism whose families receive Autism Medicaid Waiver funding from the Kansas Social and Rehabilitation Services. The training structure consists of web-based instruction and independent assignments, classroom lecture, and experiential training in a clinical setting and at job sites with children with autism. Content and experiences are designed to teach autism characteristics including basic screening information; applied behavior analysis (i.e., measuring and recording data, principles of behavior, teaching strategies, conducting teaching sessions, variables that affect behavior, behavior reduction strategies, determining

the function of behavior, peer networks and social skills; and content regarding team meetings and wrap around services. Outcomes include (1) pre to posttest mastery of skills, (2) data on fluency of trainees during training sessions, and (3) fluency data from video recordings of teaching sessions with clients in their home settings. Implications for training and increasing the numbers of quality service providers for young children with autism will be discussed.

The Effects of Parent-Child Interaction Therapy on Problem Behaviors in Three Children with Autistic Disorder. RENE JAMISON (University of Kansas Medical Center), Ronald Matthew Reese (University of Kansas Medical Center), Maura Wendland (University of Kansas), Steven Lee (University of Kansas)

Abstract: Children with autism are most severely impacted in socialization, communication, and repetitive behaviors and restricted interests. These impairments increase the risk for problem behaviors, making children with autism likely to display problem behaviors that warrant treatment. The empirical support for Parent-Child Interaction Therapy (PCIT) in treating disruptive behaviors in young children and the similarities between PCIT and strategies used to manage problem behaviors in children with autism, suggest it is reasonable to evaluate PCIT as a treatment to manage problem behaviors for this population, which was the purpose of the present study. A single-subject, multiple baseline design was utilized to examine the effects of Parent-Child Interaction Therapy (PCIT) on problem behaviors in three children with Autistic Disorder.

Multiple measures, including direct observations of behavior and behavior rating scales, were used to evaluate the effects of the treatment. Results revealed significant decreases in noncompliance for all three participants in the study, with medium to large effect sizes. Ratings of problem behavior severity on a behavior rating scale also decreased following treatment. Parents reported high levels of satisfaction with the treatment process and outcome and showed some decrease in parental stress related to parenting.

Replication of a Short Term Training Program for Parents of Toddlers with Autism. ANDREA NEWCOMER (University of North Texas), Shahla S. Ala'i-Rosales (University of North Texas), Jesus Rosales-Ruiz (University of North Texas), Lashanna Brunson (University of North Texas), Samantha Nelson (University of North Texas), Kellyn Joi Johnson (University of North Texas)

Abstract: This presentation describes the results of a replication and extension of recent research on a parent training program, The Family Connections Project, for three parents of toddlers with Autism. Families received 12-17 hours of training in their home, using toys and materials in that setting. Parents were taught a core set of teaching strategies that included arranging the environment, setting up learning opportunities, and using positive reinforcement. Use of positive reinforcement emphasized shaping and response specific reinforcement. Parents were taught these strategies through a sequence of trainer modeling, role playing, and in vivo feedback and coaching. Parents learned to apply these strategies to increase their childs rate of eye contact. Measures were recorded for both parent and child behaviors and IOA is in the process of being calculated. Parent behaviors included learn units and affect. Child behaviors included facial orientation, vocals, affect, joint attention, social responsiveness, play and social engagement. The results indicate that parents learned to arrange teaching opportunities and children increased eye contact. Furthermore, increases in several additional, non-targeted responses were noted. The results are discussed in the context of similarities and difference to the original research, parent comfort with training procedures, and issues regarding selection of child skills in parent training.

#538 Symposium

5/26/2009
10:30 a.m. - 11:50 a.m.
North 120 BC
AUT/DDA; Service Delivery
BACB CE Offered. CE Instructor: Len Levin, Ph.D.

Evidence-Based Strategies to Address Deficient Repertoires in Young Children with Autism
Chair: Len Levin (Coyne & Associates, Inc.)

Abstract: ABA-based, early intervention services for children with autism, sometimes referred to as Early Intensive Behavior Intervention (EIBI), typically adhere to a scope and sequence of curriculum objectives to promote repertoires in the domains of attention/social pragmatics, functional communication, imitation, language comprehension, and play. These repertoires become the basis for the performance of progressively more sophisticated responses. Most young learners with autism require systematic implementation of teaching techniques that utilize prompting, prompt-fading, and differential reinforcement strategies to promote skill acquisition in these key areas. A percentage of learners, however, do not acquire skills in critical areas such as attending, imitation, and language comprehension even when systematic instruction as described above is used. This symposium will present data on the implementation of innovative techniques with young learners with autism, learners who were not acquiring initial target objectives in some of these critical behavioral domains prior to the implementation of these strategies.

Acquisition of Spontaneous Eye Contact During Teaching Interactions: The Implementation of Shaping Techniques without Prompts. Len Levin (Coyne & Associates, Inc.), KARA LEE (Coyne and Associates), Tiffany Bauer (Coyne and Associates), Jessica Ann Korneder (Coyne and Associates), Melissa L. Evans (Coyne and Associates)

Abstract: Attention to relevant stimuli, especially socially-mediated stimuli, is a common deficit associated Autism Spectrum Disorder. While discrete-trial teaching is designed to facilitate attention to relevant discriminative stimuli, the development of that attending repertoire in children with autism may not always occur. Systematically teaching the learner to establish eye contact with the instructor at critical intervals of the teaching interaction should facilitate optimal attention to discriminative stimuli and promote more efficient skill acquisition in the long-term. Prompting and prompt-fading techniques are often not implemented in a way that facilitates the development of spontaneous eye contact, the learner establishing eye contact with the instructor in the absence of vocal or gestural cues (e.g., Look at me). Consequently, the authors have utilized a shaping procedure without using prompts to promote an attending repertoire during discrete-trial teaching interactions. Data will be presented that demonstrates the efficacy of this technique across a variety of young learners with autism.

Establishing a Beginner Listener Repertoire via Non-traditional Discrimination Techniques. MELISSA L. EVANS (Coyne and Associates), Shireen Kalantar (Coyne and Associates), Megan Lewis (Coyne and Associates), Len Levin (Coyne & Associates), Paul D. Coyne (Coyne & Associates)

Abstract: Deficits in the development of speech and language are ubiquitous in children with Autism Spectrum Disorder. Early Intensive Behavioral Intervention typically addresses prerequisites to language, such as imitation and visual discrimination (e.g., match-to-sample) before working directly on expressive language (e.g., echoics, mands, tacts) and language comprehension (e.g., conditional auditory-to-visual discriminations). For non-vocal learners (e.g., learners without a strong echoic repertoire), language comprehension objectives (e.g., identifying objects when presented with a vocal discriminative stimulus, performing a motor movement when presented with a vocal discriminative stimulus) are typically addressed before expressive language objectives. For some learners, however, acquisition of those initial language comprehension objectives is challenging. Some researchers and practitioners have suggested that the development of an auditory discrimination or auditory matching repertoire may require direct attention for such learners. The current authors will present data to support the efficacy of a technique that utilizes auditory sound discrimination tasks in combination with initial auditory-visual discrimination targets to induce language comprehension.

Facilitation of an Echoic Repertoire via Oral Motor Imitation. Christine Essex (Coyne and Associates), SALLY D MOORE (Coyne & Associates), Nicola Bogie (Coyne and Associates), Celia Newkirk (Coyne and Associates)

Abstract: Newly diagnosed children with autism enter treatment and education programs with a range of skill deficits. One of the most challenging deficits to address is the absence of an echoic repertoire. The procedure described in this presentation was developed by behavior analysts working in collaboration with a speech-language pathologist to instruct learners with limited oral-motor imitation and vocal

imitation skills. Various oral-tactile stimulation techniques combined with instructional techniques based on the principles of behavior analysis were utilized to facilitate the imitation of oral-motor movements. Specific oral-motor targets were chosen based on their applicability to the production of early-developing phonemes. Once the specific oral-motor targets were mastered, phonemic targets were required in combination with the mastered oral-motor targets. Eventually, phoneme production was required in imitation independent of oral-motor targets, and without oral-tactile stimulation. In behavior analytic terms, this was the initial development of an echoic repertoire. The benefits of a strong collaboration between two disciplines, speech pathology and applied behavior analysis, will also be discussed.

Establishing a Beginner Listener Repertoire via Visual Match-to-Sample Discrimination Training. Len Levin (Coyne & Associates), Sally D Moore (Coyne & Associates), TIFFANY BAUER (Coyne and Associates)

Abstract: There is some evidence that it is easier for young children with autism to learn tasks that incorporate a visual discriminative stimulus (e.g., a match-to-sample task with identical items or pictures) than it is for them to learn language comprehension tasks that do not incorporate visual cues (e.g., pointing to a specific object in response to a vocal discriminative stimulus). Motivational issues, deficits in auditory discrimination skills, and the relative salience of the discriminative stimuli may all contribute to this phenomenon. Greer and Ross (2008) describe a procedure to induce language comprehension or specifically, a listener component of naming repertoire. The procedure incorporates the simultaneous presentation of a vocal sample (i.e., a tact) and visual sample as part of the discriminative stimulus in a visual, match-to-sample task. The current authors have adapted that procedure to promote acquisition of initial language comprehension targets (e.g., pointing to pictures of familiar people, colors, shapes). Data will be presented to support the efficacy of this approach with learners who were having difficulty acquiring initial language comprehension targets via traditional discrimination training.

#539 Symposium

5/26/2009
10:30 a.m. - 11:50 a.m.
North 125
AUT; Applied Behavior Analysis

Evaluating Interventions Available for Children with Autism: The Importance of Evidence-Based Treatments
Chair: Marjorie H. Charlop-Christy (Claremont McKenna College)
Discussant: Debra Berry Malmberg (California State University, Northridge)

Abstract: Of the various intervention options for children with autism, most lack scientific evidence. Studies report that 74-92% of children with autism are enrolled in programs that are not empirically validated (Hanson et al., 2007; Harrington et al., 2006). Due to the potential costs of using such interventions, it is important to understand why parents choose such treatments, the sources they report as influential in their decisions, and ways to train parents to choose evidenced based interventions. The research presented in this symposium demonstrates that parents of children with autism are engaging in many types of treatments that are not evidenced based. The first study compared parents of children with autism to parents of children with cerebral palsy and Down Syndrome in their participation in non-evidence based interventions. The second study investigated what interventions parents of children with autism are adopting and why. Lastly, the third study describes a parent education program that was devised to teach parents to effectively use evidence based strategies to evaluate their children's interventions. All three studies demonstrate the growing need for more effective research to evaluate the multitude of interventions that are available for children with autism.

Evidence-Based Treatment: A Comparison of Parents of Children with Autism, Cerebral Palsy and Down Syndrome. MELAURA ANDREE ERICKSON (Claremont Graduate University), Kari Berquist (Claremont Graduate University), Marjorie H. Charlop-Christy (Claremont McKenna College)

Abstract: The use of Complementary and Alternative medicine (CAM) is steadily increasing in the United States. Past studies report that 74-92% of children with autism are enrolled in interventions that are not empirically validated and therefore considered CAM. Although other pediatric populations are engaging in CAM use, it is done so at a much lower rate. The current study investigated the rates of CAM use in children with autism and compared these rates to children with Down Syndrome and cerebral palsy, as well as neuro-typical children. Surveys were administered to 25 parents from each group. Preliminary data demonstrates that parents of children with autism are engaging in more CAM than any of the other groups tested. The sources parents of children with autism report as most influential in their decision to use CAM are recommendations from pediatricians and friends. The parents from the other groups report choosing interventions that would target specific symptoms.

Are Parents of Children with Autism Choosing Evidence-Based Treatments? Kari Berquist (Claremont Graduate University), Marjorie H. Charlop-Christy (Claremont McKenna College), ALISSA GREENBERG (Claremont Graduate University)

Abstract: This study examined parents' adoption of interventions for their children with autism, as well as the factors that influenced what interventions parents used. Surveys were administered to 12 participants who were affiliated with an after school behavior management program. Findings showed a high prevalence of non-empirically supported interventions being used by participants. In addition, results also showed that children were simultaneously participating in multiple interventions, both empirically and non-empirically validated. Given the findings, this study confirmed the hypothesis that parents of children with autism utilize many different types of interventions without scientific support. In addition, this study also investigated reasons why parents choose which interventions to adopt for their children. Out of twenty factors, three of the five factors that were rated most important when choosing an intervention were based on professional recommendations (i.e., autism professional, physician, regional center). These results substantiate the need for decreasing non-empirically supported interventions used by participants.

A Parent Education Program: Teaching Parents How to Evaluate Their Child's Interventions Using Evidence-Based Practices. KARI BERQUIST (Claremont Graduate University), Marjorie H. Charlop-Christy (Claremont McKenna College), Alissa Greenberg (Claremont Graduate University)

Abstract: Given the high prevalence of non-empirically supported interventions used by participants in study 1, this study assessed the effectiveness of a parent education program to teach parents of children with autism to distinguish between non-empirically validated interventions and empirically validated interventions and scientifically evaluate their child's interventions. This study specifically examined parents' acquisition, generalization and maintenance of behaviors related to the evaluation of their child's interventions. Additionally, this study looked at parents' knowledge and attitudes related to evaluation of their children's intervention in comparison to controls. A multiple baseline design across parent participants was used to assess parents' ability to evaluate interventions. In addition, a pre- and post-test design was used to assess for variables related to psychosocial and knowledge of evaluative information, comparing parent participants to a control group. After completion of the parent education parents' evaluative abilities increased in comparison to controls, as well as relative to individual baseline measures.

#540 Symposium

5/26/2009
10:30 a.m. - 11:50 a.m.
North 122 BC
AUT; Applied Behavior Analysis
BACB CE Offered. CE Instructor: Gerald E Harris, Ph.D., BCBA

ABA Specialty Social Skills Training for Children with Autism
Chair and Discussant: Gerald E. Harris (Texas Young Autism Project)

Abstract: Addressing deficits in the social functioning of children with autism is a wide-ranging and complex area. The complexities and subtleties of social interactions often require more exactness and forethought in

the application of ABA procedures. While much success in using ABA techniques to improve social skills has been reported, there are many social skill areas not yet fully addressed or even considered. This symposium presents data and new information on procedures used within an ABA Treatment Center for young children with autism to extend and improve their social functioning. The first presentation focuses on teaching assistance seeking behaviors and generalizing them to natural safety situations (separation form caretakers) in the community. The second presentation, again a safety consideration, looks at teaching children with autism to respond appropriately to police officers in the community. The third presentation offers data on the use of an emotional coding system, using specific facial cues, which can help in teaching children with autism to understand and express emotional subtleties more effectively. Data on differences in facial expression by typically developing and children with autism are presented. Together, these three studies extend our knowledge of, and ability to modify, the social skills of children with autism.

Teaching Young Children with Autism to Seek Assistance When Lost. KRISTEN SALINAS (Texas Young Autism Project), Maureen Childs (Texas Young Autism Project), Gerald E. Harris (Texas Young Autism Project)

Abstract: Ninety percent of families will experience the loss of a child within a public place at some time(Sedlak, et. al. 2002). Children with autism are more likely to become lost or wander away from caregivers (Debault, 2001). Establishing an effective strategy to teach children with autism how to seek assistance when lost is a critical area of community safety.
Taylor, et. al. (2004) using the principles of Applied Behavior Analysis, successfully taught three teenagers with Autism to seek assistance when lost. The current study extends this research to young children with autism. Participants were 3 children, age 7 to 9 years, receiving ABA treatment at the Texas Young Autism Project. All participants demonstrated a lack of assistance seeking behaviors at baseline. Participants were cued by a remote device to follow a task analysis of assistance seeking behaviors. Students were first taught the behavioral sequence in a classroom simulation, and then skills were generalized to the natural environment.
Resulting data from the current study demonstrate that using the principles of ABA, young children with autism can be taught to seek assistance when lost. This study has practical applications in the treatment of Autism, as well as other developmental disorders.

Teaching Children with Autism to Respond to Police. JOHN SALINAS (Texas Young Autism Project), Maureen Childs (Texas Young Autism Project), Gerald E. Harris (Texas Young Autism Project)

Abstract: According to the Office of Special Education and Rehabilitative Services (OSERS) people with autism are seven times more likely to come into contact with police in the United States (Debbauldt, 2001). Responding to novel people can be challenging for many children with autism, making it difficult for an authority figure to obtain identifying information from such a child should they become lost. These children may have a decrease in responding without assistance (Dunlap et al 1987).

A multiple baseline across subjects design was utilized to evaluate if children with autism could answer basic questions in novel situations absent a trained treatment provider. Three children with autism participated who were receiving ABA services at the Texas Young Autism Project. At baseline participants did not respond to police questioning of previously mastered targets such as name and address. The children were then systematically trained to respond to nonvocal stimuli associated with a police officer. For one subject, additional training was needed for generalization to occur.

The results of the study demonstrated that using ABA training procedures, a novel authority figure was able to gain responses to simple conversation questions from a child with autism.

A Comparison of Affective Expression Coding between Autistic and Typically Developing Children. ALEXIS WASHMON (Texas Young Autism Project), Trea Drake (Texas Young Autism Project), Gerald E. Harris (Texas Young Autism Project)

Abstract: Understanding and expressing emotion through facial cues is a prominent characteristic of effective social communication, and is often deficit in children with autism. Using ABA procedures to

teach such social communication depends on adequately operationally defining emotional constructs. This study expanded on a previous study targeting the identification of overt facial characteristics (e.g., brow and nose movement) indicative of seven emotional states displayed by typically developing children. Treatment staff was trained to adequately code overt facial characteristics utilizing the techniques of written description, practice with visual media, and performance feedback. The current study focused on comparing the reliability obtained when coding for autistic versus typically developing children. Overall, agreement between observers was above 80% for both populations, indicating a good ability to use those specific cues to code intensity of affect. These findings indicate that the affective expression coding system can be effectively implemented in a treatment center for children with autism. Using this coding system to operationalize nonverbal communication target behaviors and develop intervention procedures to promote affective communication in children with autism has the potential to greatly improve their social outcome.

#541 Symposium

5/26/2009
10:30 a.m. - 11:50 a.m.
North 120 D
AUT/VRB; Applied Behavior Analysis
BACB CE Offered. CE Instructor: Kim D. Lucker, Ph.D., BCBA

Creative & Collaborative Interventions for Teaching Social Skills & Language Development to Children with Autism
Chair: Kim D. Lucker (Behavior Mgmt. Consultants)

Abstract: This symposium will include 4 presentations which describe unique and creative interventions for addressing core deficits related to autism spectrum disorders, specifically social and language skills deficits. Each of these papers will detail the specialized behavioral procedures used to address common deficits in children with autism and demonstrate the effectiveness of the procedures through graphic presentation of outcomes achieved, as well as other measures of program implementation. Video clips will be used to illustrate some of the intervention procedures used in the studies being presented.

The Saturday Social Club: An Innovative Approach to Teaching Social Skills to Children with Autism. HEATHER R. MUMMAW (BMC, Inc.), Kim D. Lucker (Behavior Mgmt. Consultants), Angela Bradberry (Behavior Mgmt. Consultants, Inc.), Jacqueline Amanda Hoskinson (Florida Institute of Technology)

Abstract: Observation of most classrooms will reveal numerous complex social interactions among peers. It is well known that children with autism often struggle with social skills in the school setting. Not only is it important to build peer relationships, research indicates social skills are important to future school success. Although social groups and therapy sessions addressing these skill deficits are shown to be effective there is debate about the necessary features of a social program. What is agreed upon is that an effective social program should facilitate acquisition of social skills as well as maintenance and generalization those skills.

In this paper we will provide detailed information about an intensive social skills group designed to address the acquisition, maintenance, and generalization of social skills. Created and implemented by behavior analysts, this intensive social skills group is modified from and improved upon the original "Saturday Social Club." Information will include social skill acquisition activities, free choice activities, organization of the session, preparation and integration of peer models, and parent involvement and training. Data on acquisition and generalization will also be presented.

A Social Skills Summer Camp for Adolescents with Asperger's Syndrome and High Functioning Autism. ANGELA MANN (UF-Jacksonville CARD), Katrrina Ressa (UF-Jacksonville CARD), Anthony Rhodes (UF-Jacksonville CARD)

Abstract: This presentation will describe the results of a summer long pilot program for teaching social skills to adolescents diagnosed with Asperger's Disorder and high-functioning autism in inclusive settings. The 6-week long camp took place in a clinical setting and was facilitated by the three staff members from the UF-Jacksonville Center for Autism and Related Disabilities. Eight students participated in the pilot study and ranged in age from 10 to 13 years of age. Sessions were held twice a week for 2 hours each session. Topics were organized into two sections: conversational skills and intrapersonal skills. The session consisted of a 30-minute review where students shared homework assignments with the group; a 20-minute instructional period where students would learn new skills; a 60-minute block of practice and video modeling; and a 10-minute overview of new homework. A baseline of skills was taken through self-report and parent on the Bellini (2007) Social Skills Profile and the Screen for Child Anxiety Related Emotional Disorder Scale –Revised. An observational measure of social skills was also taken via a structured interview based on the Autism Diagnostic Observation Scale interview from Module 3. Responses were coded and interrater agreement taken. Posttest data will be collected and skills will be probed at a later date for generalization and maintenance.

Increasing Social Interactions and Group Participation Skills with a Daily Circle Time Activity.
ANGELA PERSICKE (CSU Fresno), Amanda Adams (California State University, Fresno)

Abstract: Children with autism do not develop social skills in the same way typically developing children do. Exposure and direct training in activities that include social skills may be a naturalistic method of improving these skills and has implication for good generalizability. Circle Time is and activity used in typical pre-school and kindergarten classrooms to develop children's social skills and group attending skills. The objective of this study was to determine if Circle Time used in a center-based autism program might be influential in increasing peer-to-peer and peer-to-adult interactions for children with autism. Fifteen children from the Central California Autism Centered participated in a daily Circle Time activity. Data on free time interactions were recorded to determine if Circle Time had an effect on social interactions as measured by spontaneous eye contact, verbal/vocal initiations, non-verbal initiations, and reciprocations to a peer interaction. Results will be discussed with considerations for future programs.

A Collabortive Effort Between ABA and Speech Therapy Techniques to Bring About Vocal Language in a Child with Autism.
KIM D. LUCKER (Behavior Mgmt. Consultants), Eugenia Kellenberger (Private Practice)

Abstract: ABA/Verbal Behavior (Partington & Sundberg, 1998) techniques have become increasingly accepted for use in developing vocal language abilities in children with autism and other developmental disabilities. Using Skinner's analysis of Verbal Behavior (1957), these procedures address language acquisition from a functional, rather than a developmental model of learning. However, these methods fall short in addressing a specific disorder that is common to many individuals on the autism spectrum, and that is apraxia of speech. This oral motor planning deficit requires understanding and knowledge of training techniques primarily done by Speech & Language Pathologists. This situation allows for an opportunity for an interdisciplinary team of professionals to work collaboratively in developing essential language skills in these children.

The following presentation will investigate the use of combining ABA teaching techniques with a specialized Speech/Language technique knows as the PROMPT method. This study was done with a 5-year old child with a completely defective vocal repertoire due to severe apraxia. At the start of this study he could say 6 words (5/6 were mands) with adequate articulation, but was communicating primarily via sign language, PECS and gestures. Tantrum behavior was observed almost daily across all settings with low frustration tolerance being a primary issue. Therapy sessions were conducted 4 times per week for 1 hour, using a trained ABA therapist and a Master's level Speech Language therapist, working at separate times. Results from the combined teaching approach, carried out over a 6-month period, show that these procedures were effective in developing articulation of almost all appropriate speech sounds used in language production, allowing this child to be an effective vocal communicator. Video clips will be used to illustrate the techniques being discussed and the changes in language skills obtained by the participant.

#542 Symposium

5/26/2009
10:30 a.m. - 11:50 a.m.
North 224 A
CBM; Applied Behavior Analysis

The Contribution of Motivating Operations in the Treatment of Pediatric Feeding Disorders
Chair: William G. Sharp (The Marcus Autism Center)
Discussant: Linda J. Cooper-Brown (The University of Iowa)

Abstract: The treatment of pediatric feeding disorders through consequence manipulation has been well documented; however, interventions involving motivating operations (MOs) have garnered less attention. This omission is surprising given that MO manipulations are often implemented in conjuncture with one or more consequence-based strategies rolled into a larger treatment package. The goal of the current symposium is to address this limitation by focusing on the contribution of MOs in the treatment of pediatric feeding disorders. The three studies include participants treated at interdisciplinary feeding programs for severe food selectivity and/or chronic food refusal. In each study, MO manipulations, including variations in tube feedings, food texture, and meal variety, were components of larger treatment packages aimed at increasing oral intake. Single-case research designs were used to evaluate the relative contribution of each treatment procedure on feeding related behaviors (e.g., oral intake; refusal behaviors). Results suggest MO manipulations have the potential to provide practitioners with an expanded repertoire of treatment methods for addressing problematic eating patterns.

Increasing Intake Through Increased Variety: A Clinical Application for Children with Feeding Problems. KEITH E. WILLIAMS (Penn State Hershey Medical Center), Lynette Martin (Penn State Capital Campus), Katherine Riegel (Penn State Milton S. Hershey Medical Center), Candace M. Paul (Penn State Hershey Medical Center), Bianca Pizzo (Penn State Hershey Medical Center), Sara Doyle (Penn State Harrisburg)

Abstract: While research conducted with adults has shown that providing a wide variety of foods can increase intake, little related research has been conducted with pediatric populations. In the adult research, the implications of the research findings have often focused on limiting intake or weight management. In the single study involving children, increased food variety decreased the rate of habituation and increased energy intake by up to 42%. The current study involved increasing food variety during meals as a component in a treatment package designed to increase oral intake. The participants were two typically developing children with chronic health issues who were dependent upon supplemental tube feedings. Alternating treatments designs were used to demonstrate that an increased variety of food resulted in increased intake for both children. Both children were weaned from their gastrostomy tube feedings and the use of increased variety as a nonintrusive intervention or a component to a treatment package for the treatment of childhood feeding problems was discussed.

Texture Fading to Increase Consumption in Three Children in an Interdisciplinary Feeding Day Treatment Program. JANE MORTON (The Marcus Autism Center), William G. Sharp (The Marcus Autism Center), David Jaquess (The Marcus Autism Center)

Abstract: The use of consequence-based treatment of pediatric feeding disorders have been well documented, including differential reinforcement of appropriate behaviors and escape extinction (EE); however, antecedent manipulations (e.g., bolus size, texture, or variety) often implemented in conjunction with consequence-based procedures have received less empirical attention. In the current study, a texture fading procedure was implemented with three clients enrolled in an interdisciplinary pediatric feeding disorder clinic for the treatment of food selectivity by type and texture. An initial treatment package involving EE was successful in expanding variety, although all foods were at puree texture. Prior to the implementation of fading procedures, texture assessments involving a multi-element design indicated increased problem behaviors associated with foods presented at a higher textures. Systematic texture fading procedures were subsequently employed to increase texture beyond puree. Results from the study

are discussed relating to treatment development and generalization of findings to other children with pediatric feeding disorders.

The Role of Appetite on Food Refusal in Young Children. LACEY LEBLANC (Kennedy Krieger Institute), Charles S. Gulotta (Kennedy Krieger Institute), Melissa Luke Gonzalez (Kennedy Krieger Institute)

Abstract: Pediatric feeding disorders are serious conditions that affect otherwise typically developing, developmentally delayed, and medically fragile children. If these conditions are not effectively treated, the child may experience other serious medical difficulties including problems with growth and development. Research has demonstrated that behavioral therapy provided within an interdisciplinary treatment package is an effective method for treating children with feeding disorders. Despite the large evidence base supporting behavioral treatment for feeding disorders in children, it is an unfortunate reality that some children do not respond to treatment. This may be especially true for select patients with a history of, or current dependence on, gastrostomy tube feedings. Several case studies highlighting potential motivating operations that may impact successful treatment will be presented. These factors include variables that may have an abolishing affect on appetite or caloric intake. Several subject's data were examined along with several target variables such weight gain, food acceptance, and percentage of vomiting across the day. Subjects were previous inpatient and day treatment patients enrolled in the Kennedy Krieger Institute's feeding program to decrease their dependence on tube feeding. Additionally, a future research project designed to systematically investigate the gastrointestinal hormonal profiles of responders versus non-responders to treatment will be discussed.

#543 Symposium

5/26/2009
10:30 a.m. - 11:50 a.m.
North 222 AB
CBM/VRB; Applied Behavior Analysis
BACB CE Offered. CE Instructor: Daniel J Moran, Ph.D., BCBA

Treat 'em Human: ACT in the Community
Chair: Nikki Christine Hernandez (University of North Texas)
Discussant: Daniel J. Moran (Trinity Services)

Abstract: Acceptance and Commitment Therapy (ACT) is a treatment designed to increase flexibility in responding in the service of valued living. Outcome studies comparing ACT to more traditional Cognitive Behavioral Therapy (CBT) suggests that ACT is as effective as traditional treatment modalities. However, ACT appears to produce longer term therapeutic gains. Furthermore, this data also indicate a different mechanism of change in ACT than in traditional therapy. Experiential avoidance (EA), defusion, and valuing are examples of mechanisms that ACT theorists have posited and tested. These mechanisms are utilized to acknowledge and address EA, create psychological flexibility, and identify values and obstacles that may be preventing clients from living in accordance with their values. Three studies were conducted to assess ACT processes in individuals who have received treatment in varying populations including community clinic, college undergraduates, and parents of children with problem behavior. Results of these studies will be evaluated and discussed.

ACT for Parents: Pilot Study of a Group Intervention with Parents. JONATHAN SCHMALZ (University of North Texas), Amy Murrell (University of North Texas), Cicely Taravella LaBorde (University of North Texas), Andrew Scherbarth (University of North Texas), P. Ryan Mitchell (University of North Texas)

Abstract: Ineffective parenting behaviors, including the use of harsh discipline and inconsistent monitoring, rule setting, and/or follow-through, are associated with adolescent engagement in problem behavior. Highly distressed parents are more likely to use these ineffective techniques and often fail to persist in skills learned through parent training. High levels of experiential avoidance are both common in distressed parents and related to increased behavioral inflexibility. Such inflexibility is reflected in rule-

governed behavior that persists despite changes in environmental contingencies and may explain why distressed parents continue to utilize ineffective parenting techniques. Acceptance-based therapies like Acceptance and Commitment Therapy (ACT) specifically target experiential avoidance to increase psychological flexibility: the ability to contact current contingencies and change behaviors when doing so is effective. Increased flexibility may assist parents in implementing and persisting in successful parenting behaviors. The efficacy of ACT interventions has been shown across many domains of problem behavior, but not specifically with parents of adolescents with behavior problems. Data from this pilot study, conducted over ten weekly sessions with three parents, including changes in parenting behaviors, parental distress, and experiential avoidance, acceptance, and mindfulness, as well as changes in adolescent problem behavior, will be presented.

Oh Function!: Functional Application of ACT Processes. AMANDA C. ADCOCK (University of North Texas), Amy Murrell (University of North Texas)

Abstract: Though ACT has been posited as a treatment model based on ongoing functional analysis, many ACT researchers have continued clinical trials directed at specific diagnoses with the standard exclusion criteria (Hayes et al., 2006). ACT needs to be further evaluated in conditions that test its functional approach. One large-scale effectiveness study showed promising results for ACT within the anxiety and depression spectrum (Foreman et al., 2007). Though this study addressed comorbidity, the idiographic and functional nature was not specifically studied. Thus, this study utilized session-by-session data analytic strategy in a community clinic setting with clients without exclusion criteria other than that they are English speaking adults. The Acceptance and Action Questionnaire-2 (AAQ2), Valued Living Questionnaire (VLQ), and Symptom Checklist (SCL-90) were given to each participant pretreatment, as well as at various time points throughout treatment. The functional analyses within and across sessions will be described along with graphs of self-report scores. This study has been reviewed by the UNT IRB.

Works How? ACT Processes and Mental Health Care. TIFFANI ALLISON (University of North Texas), Amanda C. Adcock (University of North Texas), Nikki Christine Hernandez (University of North Texas), Cicely Taravella LaBorde (University of North Texas), Amy Murrell (University of North Texas)

Abstract: Data suggests little or no difference in treatment effectiveness based on type of treatment or treatment provider, with the exception of more change occurring when clients chose their own therapist (Seligman, 1995). More recently, studies on Acceptance and Commitment Therapy (ACT), a therapy that targets experiential avoidance (EA) and encourages the process of valuing, has been shown to produce therapeutic outcomes that occur via different mechanisms of change than previously studied therapies (Hayes et al., 2006). Data will be presented from two studies that suggest individuals who have been seen by a mental health professional differed from those who have not on EA and valuing. The Personal Values Questionnaire (PVQ) and Acceptance and Action Questionnaire (AAQ) were administered to a large sample of undergraduate students. Results indicated that individuals with treatment experience reported greater EA and less valuing than those without such experience. Data from a larger sample indicated differing results. There was a trend towards more valuing and less EA in participants with treatment histories than those without. The discrepancy between the samples will be discussed. In addition, the second sample suggests that length of treatment is significantly negatively correlated with EA.

#544 International Symposium

5/26/2009
10:30 a.m. - 11:50 a.m.
North 228
EAB/OTH; Experimental Analysis
BACB CE Offered. CE Instructor: Simon Dymond, Ph.D., BCBA

Contemporary Behavioral and Neuroscience Perspectives on Transitive Inference, Relational Reasoning and Instructional Control
Chair: Simon Dymond (Swansea University)

Abstract: This symposium brings together leading researchers from behavior analysis, neuroscience and cognitive science to present their work on relational reasoning, transitive inference and neurocomputational investigations of instructional control. The four papers each address a specific topic from these dynamic, multi-disciplinary research areas. The first presentation provides a critical review of nonhuman research on transitive inference, which, it is argued, is best explained in terms of reinforcement history. The second presentation describes the findings of a brain imaging study conducted with a novel paradigm drawn from research on derived relational responding and relational frame theory that was designed to examine human transitive inference-like performance. The third presentation describes a series of studies aimed at establishing patterns of relational responding in accordance with derived comparative and opposition relations through multiple exemplar training. The final presentation describes the findings of a neurocomputational study on the effects of instructional control on human probabilistic reinforcement learning.

Transitive Inference Without the "Inference" in Non-Human Animals. MARCO VASCONCELOS (University of Oxford)

Abstract: Research with non-human animals shows that learning a relatively small number of partially overlapping simultaneous discriminations can immediately lead to other novel and apparently transitive discriminations. These findings have prompted a flourishing empirical and theoretical search for the mechanism(s) mediating this ability. I will critically analyze the most prominent models proposed to explain transitive-like behavior in non-human animals. Some models are cognitive, proposing for instance that animals use the rules of formal logic or form mental representations of the premises to solve the task; others models appeal to reinforcement mechanisms to explain such behavior. I will argue that transitive inference in non-human animals is best considered as a property of reinforcement history rather than of inferential processes.

fMRI Study of Relational Reasoning with Derived Comparative Relations. SIMON DYMOND (Swansea University), Elanor Hinton (Cardiff University), Ulrich von Hecker (Cardiff University), Anita Munnelly (Swansea University)

Abstract: Considered a hallmark of human reasoning, "transitive inference" is typically studied either with procedures that train overlapping simultaneous discriminations or that present premise pairs based on pre-existing stimulus relations. Contextually controlled derived comparative relations (more than/less than) may provide a model of the behavioral processes involved in this complex behavior. The present study describes the findings of two experiments designed to test this relational reasoning model by synthesising procedures from research on relational frame theory with behavioral neuroscience research on "transitive inference". First, a behavioral study compared the effects of two training schedules on subsequent novel performance. Next, the neural correlates of this behavior were examined with fMRI. Results demonstrated no differences between training schedules on subsequent novel probe performance, but an overall improvement in accuracy and decrease in response latencies from trained to tested relations in both groups. Imaging findings broadly supported those of previous studies. Hippocampal activation was correlated with accuracy on some test trial-types, and activity in PFC and parietal cortex showed the same trend as the behavioral data (i.e., 'distance effect'). Implications of the relational reasoning model for behavior-analytic accounts of complex human behavior are discussed.

Acquisition and Fluency of Arbitrarily Applicable Derived Relational Responding in Accordance with Opposition and Comparison Contexts. ROSA MARÍA VIZCAÍNO (University of Almeria), Carmen Luciano Soriano (University Almería, Spain), Vanessa Sánchez (University of Almeria), Francisco José Ruiz Jiménez(University of Almería)

Abstract: The aims of the present study were twofold. On the one hand, to implement a brief multiple-exemplar-training (MET) to establish derived responding according to opposition and comparison. On the other hand, to show the process to establish fluency and flexibility across several relational responding. The study was conducted with a single four-year-old child whose language and cognitive abilities were evaluated before and after the implementation of MET. The process began with the evaluation of derived relational responding according to coordination. Secondly, brief MET involving different dimensions was implemented to establish derived relational responding according to the

opposition contextual cue which was followed by a similar multi-dimension but brief MET to establish derived relational responding according to comparison. In addition across these phases, fluency and flexibility was promoted using new examples for arbitrary application contextual responding. Results showed the emergence of complex relational specific patterns that involved the transformation of functions across many examples and different contextual cues. Results are discussed in terms of the novelty and effective of this procedure to establish not only the contextual relational responding of opposition and comparison but, most importantly, to promote fluency and flexibility.

Instructional Control Over Reinforcement Learning: Behavioral and Neurocomputational Investigations. BRADLEY DOLL (University of Arizona), Michael J Frank (University of Arizona)

Abstract: Humans learn how to behave directly through environmental experience and indirectly through rules and instructions. Research has shown that instructions can control behavior, even when such behavior leads to sub-optimal outcomes (Hayes, 1989). We examine the control of behavior through instructions in a reinforcement-learning task known to depend on striatal dopaminergic function. Participants selected between probabilistically reinforced stimuli, and were (incorrectly) told that a specific stimulus had the highest reinforcement probability. Despite experience to the contrary, instructions drove choice behavior. We present neural network simulations that capture the interactions between instruction-driven and reinforcement-driven behavior via two potential neural circuits: one in which the striatum is inaccurately trained by instruction representations coming from prefrontal cortex/ hippocampus (PFC/HC), and another in which the striatum learns the environmentally based reinforcement contingencies, but is "overridden" at decision output. We attempt to distinguish between the proposed computational mechanisms governing instructed behavior by fitting a series of abstract "Q-learning" and Bayesian models to subject data. The best-fitting models support the network model in which the PFC/HC system trains the striatal reinforcement system.

#545 International Symposium

5/26/2009
10:30 a.m. - 11:50 a.m.
North 227 BC
EAB/CBM; Experimental Analysis

RFT Methods Applied to Clinical & Health Psychological Issues
Chair: Liv Kosnes (University of Wales Swansea)

Abstract: Relational Frame Theory has suggested that language and cognition may be analyzed as derived relational responding, and over the last decade RFT researchers have been exploring a variety of linguistic and cognitive phenomena based on this theoretical interpretation. The present symposium presents a selection of recent studies that demonstrate the application of RFT-based methods to empirical issues in areas of health and clinical psychological interest. Paper 1 investigated the transformation of thought suppression functions; Paper 2 investigated the transformation of health risk functions of pseudo-food names; Papers 3 and 4 employed the Implicit Relational Evaluation Procedure to examine implicit versus explicit anti fat attitudes and future thinking in depression, respectively.

Thought Suppression and the Transfer on Stimulus Functions. NICHOLAS HOOPER (Swansea University), Louise A. McHugh (University of Wales Swansea), Jo Saunders (Swansea University)

Abstract: Thought suppression is the attempted removal of unwanted thoughts. A number of empirical studies have linked suppression attempts to psychological disorders. However, the mechanism involved in unsuccessful suppression is still underrepresented in the research field. One theoretical approach that might usefully account for unsuccessful suppression is the derived stimulus relations literature. From the derived stimulus relations perspective the relational properties of language are fundamental to difficulties in suppressing unwanted thoughts. In order to test this prediction, participants were trained to relate three sets of three stimuli together using a match-to-sample procedure. Subsequently, participants were instructed to suppress all thoughts of one target word. If the suppression attempt was hampered by both

the target word and the nonwords related to the target word the relational quality of language would become apparent. The results indicated that both the target word and related words interfered with the suppression attempt. The clinical implications of the novel demonstration of the mechanism behind generalization of thought suppression via derived relations is discussed.

Transformation of Health Risk Functions of Pseudo-Food Names. EMILY KENNISON SANDOZ (University of Mississippi), Chad Drake (Portland Psychotherapy Clinic, Research, and Train), Kelly G. Wilson (University of Mississippi)

Abstract: Match to sample (MTS) procedures were used to establish arbitrary relational functions for three pseudo-food names. In the presence of pseudo-foods A, B, and C, participants were trained to select the smallest, medium, and largest member, respectively, of 3-comparison arrays. Next, health risk functions were directly trained to food B. Derived relational responding to pseudo-foods A and C will be examined using a self-report measure of perceived health risk. Based on pilot findings, participants are expected to exhibit greater negative attitudes, psychological rigidity, and avoidance to pseudo-food C. These effects are expected to be larger in participants exhibiting disordered eating patterns. Implications for contributing to the understanding of dieting behavior will be discussed.

Comparing IRAP, IAT and Facial Electromyography (EMG) as Measures of Implicit Attitudes Towards the Overweight. SARAH RODDY (National University of Ireland, Galway), Ian T. Stewart (National University of Ireland, Galway)

Abstract: The aim of this study was to compare implicit attitudes towards the overweight as measured using the Implicit Relational Assessment Procedure (IRAP), a recently developed RFT-based methodology and the Implicit Association Test (IAT), a more traditional measure of implicit attitudes, and to correlate both performances with facial electromyography (EMG) output. Facial EMG provides reliable information as to the valence and intensity of emotional reactions by recording discrete muscle movements. In addition to these comparisons, the correlation of these measures with behavioural intentions towards an overweight target was also assessed, providing evidence for the relationship between implicitly and explicitly measured affect and cognition and behaviour. 64 participants completed the IRAP, IAT and EMG followed by explicit measures of anti-fat attitudes and behavioural intentions towards the overweight. Results will be discussed, particularly with regard to the relationship between the IRAP and other implicit and explicit measures.

Implicit Future Expectations and Autobiographical Memory in Depression. LIV KOSNES (University of Wales Swansea), Louise A. McHugh (University of Wales Swansea), Jo Saunders (Swansea University), Robert Whelan (University College Dublin)

Abstract: Reduced positive expectancies and a lack of specificity in describing past events have been linked to depression. The current study compared the Implicit Relational Assessment Procedure (FT-IRAP), an implicit measure of positive and negative future thinking, and the Autobiographical Memory Task (ATM), the presentation of positive and negative cues to measure Autobiographical Memory Specificity (AMS). 40 undergraduate volunteers participated. Participants were grouped as high or low depressed based on their Beck Depression Inventory scores. The FT-IRAP results indicated that the high depressed group paired themselves with negative future expectancies and less with positive future expectancies when compared to the low depressed group. While on the AMT the high depressed group indicated reduced AMS in response to the AMT cues. The results suggest a link between increased negative future expectancies/ decreased positive future expectancies and an overgeneral autobiographical memory. The findings are discussed in terms of how future expectancies might necessitate the retrieval of overgeneral autobiographical memories.

#546 International Paper Session

5/26/2009
10:30 a.m. - 11:50 a.m.
North 225
EAB

Complex Contingencies
Chair: Andrew D. Hucks (University of Canterbury)

A Test of the Mathematical Principles of Reinforcement Using a Gambling Simulation: It's Bitonic! (Experimental Analysis) ROD ALEXANDER ARMOUR (Southern Cross University), Lewis A. Bizo (Southern Cross University)

Abstract: Predictions of the mathematical principles of reinforcement (MPR: Killeen, 1994) were tested with humans on ratio schedules of reinforcement using a simulated gambling task. Participants earned points for gambling on a simulation of a simple three wheel electronic gaming machine. Bets were reinforced according to variable ratio schedules of reinforcement. In both Experiments 1 and 2 two groups of participants experienced ascending series of ratio values between the values of VR 3 and VR 48, or VR 3 and VR 192, respectively. One group experienced a large loss and the other a large win early in their experimental session. Participants' rate of responding was well described by a bitonic function: rate of responding increased with increasing ratio values before decreasing at large ratio values. Participants that experienced a large loss responded at higher rates and for longer than participants that experienced a large win, and this was accounted for by changes in estimates of the parameter specific activation. This research supports the utility of MPR to quantitatively analyze human behavior on variable ratio schedules. Implications for gambling research will be discussed.

Reward and Punishment in a Concurrent Schedule Gambling Task. (Experimental Analysis) BRENT L. ALSOP (University of Otago), Susan Victoria Baxter (University of Otago)

Abstract: Two concurrently available, but mutually exclusive, simple "slot machines" were presented on a computer. Experiment 1 compared the effect of three different relative frequencies of reward on behavior allocation between the two games. Experiment 2 compared the effect of different relative frequencies of "near wins" (i.e., the first two "slots" were the same, and the third differed) against a background of equal rates of "real wins" on the two games. In Experiment 3, a trio of one of the symbols led to a loss of accumulated points. The effect of these punishers on performance were compared to the predictions of two competing models of punishment in concurrent schedules. Simulated gambling tasks appear a useful procedure to study the experimental analysis of human behavior, especially as independent variables seem to affect behavior relatively rapidly.

Independence of Relative Terminal-Link Entry Rates and Reinforcer Probability in Concurrent Chains. (Experimental Analysis) ANDREW D. HUCKS (University of Canterbury), Randolph C. Grace (University of Canterbury), Anthony P. McLean (Canterbury University)

Abstract: Four pigeons responded in a multiple concurrent-chains procedure in which the terminal-link schedules in each component were fixed-time (FT) 15 s schedules that ended in reinforcement with either 67% or 33% probability. A single variable-interval (VI) 15 s operated during the initial links. Across components, the relative terminal-link entry rates were 2:1, 1:2, or 1:2, and across conditions, each lasting 40 sessions, the relative probability of reinforcement or blackout in the terminal links was varied. There were two sets of conditions, in which a flashing houselight accompanied terminal-link stimuli that ended in blackout (signaled) or the houselight illumination was constant during all terminal-link presentations (unsignaled). Results showed that sensitivity to reinforcer probability was greater in unsignaled than in signalled conditions. Sensitivity to terminal-link entry did not vary between signalled and unsignaled conditions and was independent of reinforcer probability. Results support the assumption of the concatenated matching law that effects of different reinforcer variables are additive and independent,

and, taken together with results of Mattson, Grace and McLean (under revision), suggest that signalling effects are limited to variables which affect terminal-link value.

#547 International Paper Session

5/26/2009
10:30 a.m. - 11:50 a.m.
North 226 AB
EAB

Experimental Anlaysis of Human Behavior III
Chair: James S. MacDonall (Fordham University)

Mind Reading: The Role of Quality and Duration of the Relationship in Predicting Novel Behavior of Another Person. (Experimental Analysis) GENEVIEVE M DEBERNARDIS (University of Nevada at Reno), Emilie Wark (University of Nevada Reno), Josh Pritchard (University of Nevada, Reno), Linda J. Hayes (University of Nevada, Reno)

Abstract: It has been shown that the nature of the relationship between persons is a determinant in the capacity of each to predict the other's behavior, otherwise known as "reading the mind of the other". In particular, the quality and duration of the relationship appear to be critical factors. Using a stimulus equivalence paradigm, the effects of varying degrees of relationship quality and duration on the transfer of rules derived from a shared history to novel stimulus sets are examined. The methods employed for this investigation and the results obtained will be presented.

The Effects of Alternative Reinforcers on Say-Do Correspondence in Self-Control Situations. (Experimental Analysis) Edhen Laura Lima (Universidade de Brasília), JOSELE ABREU-RODRIGUES (Universidade de Brasilia)

Abstract: The present research attempted to investigate the effects of alternative reinforcers on say-do correspondence in self-control situations, comprising delayed and uncertain reinforcers. Ten students were exposed to four conditions. During the two delay phases, the participants had to state their following choice (say) and then choose between a smaller and less delayed reinforcer and a larger and more delayed reinforcer (do). During the two probability phases, they had to state their following choice (say) and then choose between a smaller and more probable reinforcer and a larger and less probable reinforcer (do). Alternative reinforcers were available only in one delay and one probability phase. In those phases, the lack of correspondence (i.e., choosing the alternative reinforcer) would produce less, equal or more reinforcers than the occurrence of say-do correspondence across conditions. High levels of correspondence were observed during baselines phases. In the alternative-reinforcer phases, however, correspondence was not always observed. That is, when a greater number of reinforcers was obtained by choosing the alternative reinforcer than by presenting correspondence, the levels of correspondence were smaller than in the other two conditions. These results indicated that competing contingencies might affect the occurrence of correspondence even when there is reinforcement for correspondence.

The Effects of the Presence of an Observer Upon Instruction Following. (Experimental Analysis) Andréia Kroger (Universidade de Brasília), JOSELE ABREU-RODRIGUES (Universidade de Brasilia)

Abstract: The goal of the present study was to investigate the role of the presence of an observer upon behavioral sensitivity to contingency change. In the Training Phase, college students were exposed to two schedules (DRL and FR), and in the Testing Phase, to an FI schedule. For the NO-NO and NO-YES groups, inaccurate instructions were given before each schedule. Those instructions described response rates opposed to those commonly produced by the schedules in effect. For the NO-YES group, there was an observer in the experimental room across the testing phase. For the control group (CT), there were no instructions and the observer was not present in both phases. In the Training Phase, all participants showed low rates during the DRL, and high rates during the FR in spite of the presence or absence of instructions. In the Testing Phase, the most efficient FI rates were obtained with the NO-NO

group and the least efficient with the NO-YES group. The CT groups presented intermediate FI rates. These results indicated that (a) contact with the discrepancy between instructions and schedules favors sensitivity to contingency changes, and (b) the presence of an observer adds a competing social contingency that strengths instructional control.

#548 Panel Discussion

5/26/2009
10:30 a.m. - 11:50 a.m.
North 121 BC
EDC; Service Delivery
BACB CE Offered. CE Instructor: Kenneth MacAleese, M.A., BCBA

Professional Development Series: How to Start and Run Your Own Behavior Analysis Business
Chair: Rachel Robertson (Vanderbilt University)

KENNETH MACALEESE (University of Nevada, Reno)
MEETA R. PATEL (Clinic 4 Kidz)
KIMBERLY NIX BERENS (Center for Advanced Learning, Inc.)
GINGER WILSON (The ABRITE Organization)

Abstract: During this event, panelists will discuss their experiences and will answer questions about starting and running a behavior analytic business.

#549 International Panel Discussion

5/26/2009
10:30 a.m. - 11:50 a.m.
North 121 A
EDC; Service Delivery

Professional Development Series: Advice from the Recently Hired
Chair: Jason C. Vladescu (Central Michigan University)

MARIANNE L. JACKSON (California State University, Fresno)
RUTH M. DEBAR (Sam Houston State University)
CRISTIN D. JOHNSTON (Behavioral Solutions, Inc)
CORINA JIMENEZ-GOMEZ (University of Michigan Medical School)

Abstract: Panelists from a variety of different educational backgrounds and professional domains will provide information and advice on making the transition from graduate school to the professional community. Attendees will be encouraged to ask questions and participate in the discussion.

#550 Paper Session

5/26/2009
10:30 a.m. - 11:50 a.m.
North 122 A
EDC

Relations Between Rate Building and Engagement in College Students
Chair: Grant Gautreaux (Nicholls State University)

An Experimental Analysis of Preference For Rate Building. (Applied Behavior Analysis) ANDREW LIGHTNER (West Virginia University), Philip N. Chase (Cambridge Center for Behavioral Studies)

Abstract: Behavioral educators claim that a rate criterion, or rate building, results in beneficial outcomes when compared to traditional methods. Along with performance outcomes, such as endurance and application, preference for rate building is also reported. However, this claim has not been experimentally evaluated using a behavioral measure of choice. In the current study, four female undergraduate students completed addition problems during one-minute timings in a rate condition and a practice condition. The rate condition had a correct response per minute criterion, and the practice condition had a cumulative correct response criterion. Both conditions had the same accuracy criterion. Participants were also exposed to a preference condition, in which a choice between the rate criterion and practice criterion was available. Measures of endurance and application were taken after each condition, and a retention test was given two weeks after the final condition. Results suggest that the rate condition was the less-preferred condition. However, performance data were varied across participants.

The Effects of Fluency Training for Students Receiving Accommodations Enrolled in a Teacher Training Course on Weekly Quizzes. (Applied Behavior Analysis) GRANT GAUTREAUX (Nicholls State University), Martha Morvant (Nicholls State University), Natalie J. Boudreaux (Nicholls State University)

Abstract: Students with documented disabilities are typically eligible to receive accommodations in higher education classes. Some of these accommodations include extended time and testing arrangements. Students receiving extended time may conceivably fail to acquire fluent repertoires simply because they have an instructional history of performing without time constraints. However, accommodations are traditionally provided to students on basis of psychological or cognitive reasoning such as claims of "processing time" limitations attributed to native disabilities. From a behavioral analytic perspective such an explanation is mentalistic and fails to account for the role environmental contingencies. By altering the instructional history of the individual through targeting fluency based instruction the need for extended time may cease to exist. The effects of explicit rate training during lectures was tested on students who qualified for extended time on quizzes and their performance on weekly quizzes. Students were selected based on low scores and slow completion rates on quizzes. A counterbalanced multiple baseline design across participants was used incorporating either rate training or non-rate based training for teaching technical vocabulary. The results are reported in terms of elapsed time and accuracy on quizzes and the impact of extend time accommodations on student performance.

Increasing Low-verbal Students Participation in Class Discussion. (Applied Behavior Analysis) LISA N FOSTER (University of Tennessee at Knoxville), Katherine R. Krohn (University of Tennessee), Robert Williams (University of Tennessee)

Abstract: In managing discussion in large classes, one fundamental challenge is achieving a balance in discussion across students. Offering an incentive, such as points toward a course grade, to increase participation from less verbal students may be one way to accomplish this goal. In the current study, students in 6 sections of a large undergraduate class were asked to record their class comments on notecards in all course units. Additionally, in some units they received points toward their course grade based on their reported comments in class discussion. The study was conducted over a 2-semester period, with slight variation in both the recording and crediting procedures across semesters. The goal of the study was to determine the effects of these 2 arrangements on initially low-verbal students' subsequent participation in class discussion (first semester n = 47, second semester n = 45). Students reliably recorded their participation in class discussion with minimal overstatement of their participation. Recording for credit led to more low-verbal students' reported engagement in class discussion than did the non-credit phases. Nonetheless, some low-verbal students participated minimally across all phases of the study.

#551 International Panel Discussion

5/26/2009
10:30 a.m. - 11:50 a.m.
North 221 AB
OBM/AUT; Service Delivery
BACB CE Offered. CE Instructor: Daphna El-Roy, Ph.D., BCBA

Application of OBM Strategies in Service Settings for Individuals with Autism: Promoting Quality Outcomes
Chair: Joanne Gerenser (Eden II Programs)

JOANNE GERENSER (Eden II Programs)
EILEEN HOPKINS (Eden II Programs)
DAPHNA EL-ROY (Eden II Programs)
NIALL JAMES TONER (Eden II Programs)

Abstract: The incidence of autism has increased considerably during the past decade. A corresponding development of programs serving individuals with autism has occurred. While these programs are essential to meet the needs of the autism community, attracting, training, and retaining a qualified workforce becomes very difficult. In addition to the competition among programs serving individuals with autism, these agencies must also compete with employment opportunities that are less stressful and less demanding than working with individuals with autism. Despite the widespread use of empirically-based teaching techniques in the field of special education, few providers apply these same principles to address staff behavior change. Organizational behavior management (OBM), also referred to as Performance Management (PM), is the application of applied behavior analysis to organizational improvement. The purpose of this panel is to address common issues within the field of human services and more specifically, to programs serving individuals with autism. Topics to be addressed include issues of staff retention and turnover, staff development as well as issues of quality assurance and improvement.

#552 Symposium

5/26/2009
10:30 a.m. - 11:50 a.m.
North 127
VRB/AUT; Applied Behavior Analysis
BACB CE Offered. CE Instructor: Gail Wayman, M.Ed., BCBA

Increasing the Mand Repertoire of Children with Autism
Chair: Gail Wayman (Wayman Learning Center)
Discussant: Vincent Joseph Carbone (Carbone Clinic)

Abstract: The mand is crucial to the development of appropriate verbal behavior, yet is often deficient in children with autism. Therefore, teaching mands should be a priority in a behavioral intervention program for children with autism, as mands often serve as appropriate replacement behaviors for many maladaptive behaviors. Additionally, the mand is the only verbal operant that produces reinforcers specific to the motivation of the speaker. This can be beneficial when teaching children with autism, who are often less likely to respond to social contingencies alone. Deficits in the mand repertoire will vary, depending upon the level of the learner. While early learners may be able to mand to an adult for food and items, they may not demonstrate the ability to do so with peers. However, an advanced learner may be able to mand for many toys, items, food and activities, and yet may not be able mand for information. These three studies address a variety of issues in teaching mands to children with autism and should provide practitioners with information that will help them when attempting to increase the mand repertoire of these children.

Evaluating Generalization of a Procedure for Teaching Children with Autism to Mand to Peers.
CALLIE AMANDA SIMMS (Wayman Learning Center), Lauren Schermerhorn (Wayman Learning Center), Michelle Dillon (Wayman Learning Center), Angela Marshall (Wayman Learning Center)

Abstract: Teaching children with autism to mand to their typically-developing peers is a critical step in moving them into a less restrictive environment. Many children with autism demonstrate deficits in manding to peers, even following successful mand training with adults. Effective instructional programming should include procedures for teaching children with autism to mand to neurotypical peers. However, it is sometimes difficult for educators to find neurotypical peers for the purpose of mand training, and, as such, peer-to-peer mand training is often conducted using other children with autism. The current study focuses on teaching three children with autism to mand for three reinforcers from two different peers with autism. The participants have previously demonstrated fluency manding to adults for each selected reinforcer. After each participant has demonstrated mastery in manding for all three items to two peers with autism, a test for generalization in manding to typically-developing peers in a novel environment will be conducted. Data will be collected and discussed.

Teaching Children with Autism to Mand for Information Regarding the Private Events of Others. HOLLY RAMSEY (Wayman Learning Center), Gail Wayman (Wayman Learning Center), Kelly McLendon (Wayman Learning Center), Michelle Dillon (Wayman Learning Center)

Abstract: When analyzing and teaching social skills to children with autism, parents and professionals often overlook the key role of the mand. While it is important to teach early learners to mand for items and activities, as verbal behavior becomes increasingly complex, mands for information become more frequent and essential to social interactions. One of the most complex of social interactions is conversation. Most conversations involve the use of mands, tacts and intraverbals, and children with deficits in manding for information may not be able to fluently engage in appropriate conversation. Manding for information regarding the private events of others, such as "What do you want to do?" or "Are you hungry?" may provide information to the speaker indicating which mands the listener is most likely to reinforce. The purpose of this study is to evaluate a procedure for teaching children with autism to mand to an adult for information regarding the private events of that adult, especially motivation. Data will be collected and discussed.

Evaluating the Implementation of a Picture Selection Communication System when Teaching Mands to a Child with Autism. SHLEY PETTY GOMEZ (Wayman Learning Center), Brandy L. Petrusky (Wayman Learning Center), Angela Marshall (Wayman Learning Center)

Abstract: Many children with autism exhibit no vocal verbal behavior. Therefore, professionals designing behavioral interventions are often faced with teaching more appropriate communication by implementing an augmentative communication system. When deciding upon a communication system, professionals may decide on a topography-based communication system, such as manual sign, or they may decide upon a selection-based communication system, usually involving some type of picture selection or exchange. There is very little information in the behavioral literature to guide professionals when deciding which system would be most appropriate for an individual learner. The purpose of this study is to demonstrate that some children with autism who demonstrate a limited mand repertoire when taught manual sign by well-trained, experienced instructors may, in fact, benefit from a picture-selection system. The study included a 10-year-old boy with autism who had been taught signs as mands for years, yet had only acquired 10 signs. The participant was then taught to mand using a picture selection system. After 3 months of picture selection, the participant acquired 21 mands. The results of this study suggest that individuals who acquire a limited mand repertoire when taught sign, may develop a more extensive mand repertoire using picture selection.

#553 Invited Presenter

5/26/2009
11:00 - 11:50 a.m.
West 301 AB
TBA
BACB CE Offered. CE Instructor: Matthew Hancock, MBA

Building Community Support to Increase the use of Applied Behavior Analysis in Urban Public Schools
Chair: Denise E. Ross (Chicago School of Professional Psychology)

MATTHEW HANCOCK (Center for Polytechnical Education)

Dr. Matthew Hancock is the Assistant Director of the Center for Polytechnical Education (CPE). CPE is a non-profit school operator whose mission is to prepare elementary and secondary students to be leaders in the 21st century knowledge economy. Under Matt's leadership, CPE has developed an educational model that incorporates evidence-based teaching approaches derived from applied behavior analysis. Matt has a background in applied behavior analysis and cooperative economics. Between 1998 and 2003 Matt worked at the David Gregory School (a former CABAS® school) in New Jersey as an instructor for children with autism. Matt also worked with children with autism under the supervision of faculty from the University of Oviedo. In 2005, Matt received a Masters degree in Cooperative Economics from the University of Bologna, in Bologna Italy. Matt received his Bachelor's degree from Skidmore College in 2001. Matt's current research interests include the application of Skinner's functional analysis of verbal behavior and Israel Goldiamond's nonlinear analysis of behavior to the development of a technology of social change. Matt's publications include a recent book, published in Italy, to commemorate the 25th anniversary of the founding of the Cooperative League of Imola: Compete by Cooperating: The Cooperative District of Imola.

Abstract: While the educational issues that confront students in low-income, urban communities are complex, applied behavior analysis has research-based, data-driven systems of schooling that can help address them. Yet, the widespread use of applied behavior analysis in urban schools has been limited for several reasons. In this lecture, Matt Hancock, Assistant Director of the Center for Polytechnical Education (CPE), will discuss barriers to the widespread use of applied behavior analysis in elementary and high schools serving low-income, urban communities. CPE, a non-profit school operator whose mission is to prepare elementary and secondary students to be leaders in the 21st century knowledge economy, has developed an educational model that incorporates evidence-based teaching approaches derived from applied behavior analysis. CPE's first school, Austin Polytechnical Academy (located in one of Chicago's poorest neighborhoods) has achieved national recognition as a model program. Senator Barack Obama recently called Austin Polytech "the kind of model we'll replicate across the country..." CPE has recently gained approval to open a second school in Chicago: the Career Academy for Advanced Technology. Based on his work at CPE, Matt will also present a useful protocol for collaborating with urban communities to successfully introduce applied behavior analysis into public schools.

#554 B. F. Skinner Lecture Series

5/26/2009
11:30 a.m. - 12:20 p.m.
West 301 CD
BPH

Exploring Behavioral Mechanisms of Putative Therapeutic Interventions
Chair: Karen G. Anderson (West Virginia University)

RICHARD W. FOLTIN (CU/NYSPI)

Dr. Richard W. Foltin is Professor of Neurobiology in the Department of Psychiatry at The College of Physicians and Surgeons of Columbia University, and a Research Scientist VII at New York State Psychiatric Institute. He received his undergraduate training at Franklin & Marshall College (1978) and a doctorate from The University of Chicago (1983) under the guidance of Dr. Charles Schuster and Dr. Chris Ellyn Johanson. Following completion of a two-year postdoctoral fellowship with Dr. Joseph Brady at The Johns Hopkins University School of Medicine, Dr. Foltin joined the faculty, where he worked closely with Dr. Marian Fischman. In 1992, Dr. Foltin joined the Department of Psychiatry at the College of Physicians and Surgeons. He was a founding member of the Division on Substance Abuse at the New York State Psychiatric Institute, and is currently the Director of the Substance Use Research Center. Dr. Foltin has been engaging in research on the effects of drugs of abuse for over two decades, and has published extensively on the behavioral pharmacology of cocaine and marijuana in humans and the effects of drugs on feeding behavior.

Abstract: Drug abuse and dependence is characterized by persistent behavior that is resistant to change and often insensitive to dramatic changes in consequences. While contingency management is effective in decreasing and controlling drug use, a medication that could either enhance compliance or even better yet, work in the absence of any behavioral effort, would greatly aid in bringing drug abuse treatment to the masses. Thus, much work has focused on medication development for drug abuse. Our approach has been to use small-scale well-controlled laboratory studies to investigate behavioral mechanisms associated with medication action and behavioral change. Useful behavioral mechanisms for decreasing drug use might include reductions in drug "craving," the positive subjective effects of drugs, drug liking, positive and negative drug reinforcement, stress-induced, drug-induced or craving-induced relapse and increases in cognitive ability, impulse control and perhaps in the negative subjective effects of drugs. Various approaches for measuring the behavioral mechanism of action of pharmacological interventions for cocaine and marijuana abuse will be presented and the relationship between behavioral mechanism and clinical outcome will be discussed. Knowledge about behavioral mechanisms can be combined with knowledge about neurochemical mechanisms to provide a foundation for understanding the neurobiology of drug abuse and other persistent behaviors.

#555 Paper Session

Tuesday, May 26, 2009
11:30 a.m. – 12:50 p.m.
North 131 A
CSE

Community Interventions Paper Session 2
Chair: Mychal Machado (MCLA)

Effects of a Pedestrian Safety Engineering Program on Crashes and Surrogate Measures in Miami Beach. (Applied Behavior Analysis) RON VAN HOUTEN (Western Michigan University)

CANCELLED: Nicotine Cessation Programming in Community-based Settings: Analyzing Outcomes of Human Rights' Concerns vs Empirical Research. (Service Delivery) MICHAEL E. ROHR, Zach Shoemaker, and Felicia Patton (Behavioral and Counseling Services, LLC)

The Effects of Sign Postings on Vandalism in a College Dormitory. (Applied Behavior Analysis) MYCHAL MACHADO and Thomas P. Byrne (MCLA)

Physical Activity in Park Settings. (Applied Behavior Analysis) PHILLIP WARD (The Ohio State University), Deborah Cohen and Terry Marsh (Rand Corporation), Kelly Evenson (University of North Carolina at Chapel Hill), Amy Hillier (University of Pennsylvania), Sandra Lapham (Behavioral Health Research Center of the Southwest), and Thomas L. McKenzie (San Diego State University)

#556 Symposium

5/26/2009
12:00 p.m. - 1:20 p.m.
North 126
AUT/VRB; Applied Behavior Analysis
BACB CE Offered. CE Instructor: Thomas Higbee, Ph.D., BCBA

Using Natural Sources of Stimulus Control To Evoke Social Communication with Children with Autism
Chair: Thomas S. Higbee (Utah State University)

Abstract: Children with autism spectrum disorders (ASD) often demonstrate lower levels of social communication skills than typical peers. This symposium will review four studies that examined the effects of different ways of using natural sources of stimulus control to increase proper social communication skills with preschool aged children with autism. Two presentations will review the use of script fading procedures to increase language during play. One study examined the effects of script fading procedures on increasing variability in language. Finally, one study will review the generalization effects from teaching mands for information in discrete trial training. The results show successful stimulus control of social communication skills using natural sources in all three studies.

Application of Script-Fading Procedures to Teach Naturally Cued Social Comments During Play Activities. MARK P. GROSKREUTZ (Utah State University), Nicole C. Groskreutz (Utah State University), Thomas S. Higbee (Utah State University)

Abstract: Children with autism spectrum disorders (ASDs) generally demonstrate lower levels of social communication than their typical peers. This study examined the use of scripts and script fading procedures to teach preschoolers with ASDs to make comments to others during play activities. Three different script frames, (e.g., "Look, I have a ____ ") were taught in isolation, and if necessary, participants were taught to tact at least 20 different aspects of a toy, (e.g., names of items, locations, and figures using a jungle toy set with animals). Following pretraining, five copies of each of the three script frames were attached to known aspects of the toy. Across training sessions, the location of the scripts was varied, so script frames were not consistently associated with any one aspect of the toy. Training consisted of prompting to read one script every 30 s. Each training session continued until all 15 script frames were read. Reinforcement consisted of reciprocal play-related comments from the trainer. Results indicate that when scripts were completely faded, participants made more comments than in baseline and generalization occurred to novel play situations, toys, and social partners. Participants also showed use of untrained comments and combinations of script frames.

Using Script Training Procedures to Promote the Generalized Use of Complex Language Targets of Children with Autism. TRINA D. SPENCER (Utah State University), Thomas S. Higbee (Utah State University)

Abstract: Children with autism often use newly acquired language targets in restricted contexts and with limited variability. Instructional tactics that embed generalization technology have shown promise for increasing spontaneity, response variation, and the generalized use of language across settings, people, and materials. This study investigates the strategic use of textual scripts to facilitate functional conversation skills of children with autism. Specifically, the generalized use of complex language skills

such as prepositions and conjunctions were targeted within the context of natural conversation with teachers, parents, and peers. The generalized and variable use of complex targets occurred without script fading conventions. Results are discussed in terms of specific instructional tactics that may facilitate spontaneity, response variation, and generalization.

The Application of Script Fading and Extinction Procedures to Increase the Variability of Mand Frames in Children with Autism. ALISON M. BETZ (Utah State University), Thomas S. Higbee (Utah State University)

Abstract: A primary deficit often seen with children with autism is repetitive and rote verbal behavior. This study examined the effects of script-fading an extinction procedure on the variability of verbal behavior with young children with autism. More specifically, we examined the effect of these procedures on the variability of mand frames (i.e. "I want ____") used by young children with autism during snack time.

An Evaluation of the Generalization of Mands for Information Taught During Discrete Trial Training with Preschoolers with Autism. ALISON M. BETZ (Utah State University), Thomas S. Higbee (Utah State University)

Abstract: Children with autism often lack the ability to mand for information about a preferred item. This is especially seen when the preferred item is absent. This study examined the generalization of mands for information using "where" when taught during discrete trial training. We tested the generalization of using "where" to mand for information with novel toys, in novels settings, and in the natural environment using an interrupted chain procedure. Results indicate that when taught during discrete trial training, manding for information using "where" generalized to novel toys and environments. However the skill did not generalize to the natural environment without explicit training.

#557 Symposium

5/26/2009
12:00 p.m. - 1:20 p.m.
North 120 BC
AUT/EDC; Applied Behavior Analysis
BACB CE Offered. CE Instructor: Christina Whalen, Ph.D., BCBA

Evidence-Based Computer-Assisted Instructional Programs for Autism Spectrum Disorders
Chair: Shannon Cernich (Jigsaw Learning)
Discussant: Christina Whalen (Jigsaw Learning)

Abstract: Despite the large number of interventions for Autism Spectrum Disorders, there are few treatment approaches that focus on increasing the accessibility of intervention and that focus on increasing the quality of implementation. Without accessibility and proper implementation, even the best behavioral intervention will not be successful. Computer-assisted interventions may be able to address some of these issues, but most of these programs are not evidence-based and may not offer enough to result in outcomes that one might expect from another type of intervention. In this symposium, several interventions which take advantage of the accessibility and implementation benefits of computers, will be discussed along with research findings, future directions for computer-assisted interventions, making treatment more available to children, and making implementation more realistic for families and for over-burdened schools. Research studies include descriptive data collected automatically through computers, single-subject designs, case studies, and larger group designs. Studies were conducted remotely via the internet, in homes, and in schools across the U.S.

Enhancing Narrative Language Skills Using Timo Stories Computer Animated Tutor. MOLLY ROBSON (Jigsaw Learning), Christina Whalen (Jigsaw Learning), Shannon Cernich (Jigsaw Learning), Manya Vaupel (Jigsaw Learning)

Abstract: Narrative language skills are critical for communication and social skills. By the time a child is in kindergarten, it is expected that they will be able to use these skills to re-tell or even make up a story to tell to others. Children with Autism Spectrum Disorders often have a great deal of difficulty acquiring and using these skills. Timo Stories is a software program which utilizes ABA, scaffolded learning, and Narrative Based Language Intervention (NBLI) to teach narrative, language, reading, and listening skills to children. In this study, a multiple-baseline design was implemented to teach 3 children to use narrative and other language skills. All 3 children demonstrated progress and showed enjoyment using the software. Results from this study will be reported including generalization data. Teaching narrative skills is difficult for many parents and teachers. This study shows that having a computer program to help guide the child and adult teacher through this process may result in positive outcome.

Building Research and Intervention Programs Through a Computerized Lesson Creator. SHANNON CERNICH (Jigsaw Learning), Christina Whalen (Jigsaw Learning), Manya Vaupel (Jigsaw Learning)

Abstract: Many excellent programs are available for educating and treating children with Autism Spectrum Disorders. One of the types of programs that is gaining in popularity in home programs and schools is the use of computer-assisted instructional programs. Some of these programs are "edutainment" and are more for fun than for intervention, others are good intervention programs but may not allow for enough customization to meet the individual needs of each student. Timo's Lesson Creator is a computer program that allows for complete customization including the ability to upload images that are personal to the child or that are very motivating for the child. This program also allows for building research studies quickly to test a variety of language or social skills to children or adults through an animated tutor (which can also be customized to say what you want it to say). In this presentation, this program will be demonstrated along with several examples of how single-subject or group designs can be built and tested quickly and effectively.

Efficacy of TeachTown Basics Intervention: A Research Overview. MANYA VAUPEL (Jigsaw Learning), Christina Whalen (Jigsaw Learning), Shannon Cernich (Jigsaw Learning)

Abstract: TeachTown Basics is an intervention program designed for children with Autism Spectrum Disorders, but with proven benefits for other language and cognitive disorders. The program includes content for developmental ages 2-7 years but is used with all ages depending on developmental appropriateness. Significant content areas such as language, cognitive, academic, and life skills are covered on the computer, along with the inclusion of other critical skills such as social interaction, play, imitation, joint attention, self-help skills, and motor skills in the off-computer activities. The program includes computer-assisted instruction, automatic data collection and reporting, session note storage and sharing, and naturalistic activities for enhancing generalization in the home, community, clinics, and schools. Several studies have been conducted including a published single-subject study with 4 children with ASD and 4 children with cognitive delays, a large-scale descriptive study with over 1,000 students using the program all over the U.S. and in other countries, and a clinical trial with over 50 children in a public school setting. Data from all of these studies will be reported as well as a discussion of the future directions of research with this intervention.

#558 International Symposium

5/26/2009
12:00 p.m. - 1:20 p.m.
North 124 A
AUT/EDC; Applied Behavior Analysis
BACB CE Offered. CE Instructor: Susan Ainsleigh, Ed.D, BCBA

Video Modeling: Novel Applications
Chair and Discussant: Russell W. Maguire (Simmons College)

Abstract: Video modeling has been used in combination with other procedures to effectively teach a variety of skills, including social pragmatic and language skills, to individuals with learning challenges. The use of

video modeling is particularly prominent in the specialty area of autism and has been documented as effective in teaching social interaction, conversation, and play skills. This symposia documents the use of video modeling in a number of novel contexts. First, video modeling is applied to the instruction of physical education skills, specifically, the teaching of a component of a cardi-exercise routine (jumping jacks) to young children with autism. Second, video modeling is used as part of a treatment package to increase the food selection choices and amount of consumption of a young male with autism. Lastly, video modeling is used to teach undergraduate special education students to implement a variety of assessment techniques in a classroom setting. These papers demonstrate the range of contexts applicable to the use of video modeling and address the challenges of generalization often discussed in the behavior analytic literature.

Video Modeling and Reinforcement: A Treatment Package for Increasing Food Selection and Consumption. VICKI NETT (HMEA), Russell W. Maguire (Simmons College), Michael J. Cameron (Simmons College)

Abstract: The purpose of this study was to evaluate the effectiveness of a video modeling and reinforcement treatment package to treat food selectivity. The subject was a four-year-old male diagnosed with autism and a history of refusing to consume a variety of foods. The goal was to increase acceptance of three different foods: a preferred food, a semi-preferred food, and a non-preferred food. A video of a peer eating the same food the subject was targeted to eat was shown prior to each meal. The video also showed the peer receiving praise and access to a toy item, preferred by the subject, for consuming the targeted food. The results of this study not only demonstrated reliable acceptance of increased amounts of preferred, semi-preferred, and non-preferred foods, but also noted an increase in the duration of time the subject sat at the dining table. The results are discussed in terms of the benefits and limitations of video modeling in applied settings.

Teaching Cardio-Exercise Skills Using Video Modeling. CLAUDIA M. ROMERO (Simmons College), Susan Ainsleigh (Dar Al-Hekma College)

Abstract: In this study, three young children with autism were taught to perform a common exercise skill, jumping jacks, using a treatment package consisting of video modeling and reinforcement. Previous live modeling and physical prompting had not been successful in teaching this skill. Using a multiple baseline design, the children were shown a video of a peer demonstrating the required skill, for a 5-minute duration. Following this, the individual was requested to perform the skill and given feedback regarding their performance. Results show that each of the individuals acquired the skill, and each demonstrated the skill in the presence of multiple instructors and in multiple settings. The implications of teaching physical education skills to children with autism and the practicalities of the use of video modeling are discussed.

Video Modeling in Higher Education. SUSAN AINSLEIGH (Dar Al-Hekma College)

Abstract: In this study, undergraduate students in a special education program in Saudi Arabia were taught to utilize formal assessment tools via a treatment package consisting of video modeling and performance feedback. Using an alternating treatment design across similar assessment tools, the use of video modeling and feedback was compared to the use of live modeling and feedback, and the use of written review of directions and feedback without modeling. The results demonstrated a decrease in errors in implementation in both modeling phases, with a slightly superior effect with the video modeling treatment package. The use of video modeling in higher education settings is discussed, with a focus on challenges for implementation and promoting of generalization.

#559 International Symposium

5/26/2009
12:00 p.m. - 1:20 p.m.
North 125
AUT/EDC; Applied Behavior Analysis

The Use of Technology to Promote Independence and Social Acceptance in Adolescences with Autism
Chair: Gloria M. Satriale (PAAL)
Discussant: Peter F. Gerhardt (Organization for Autism Research)

Abstract: A variety of technological devices are commonly utilized in the natural environment to improve our productivity and organization. However, there are limited number of studies conducted to assess the effectiveness of such technology for people with autism, particularly for adolescents and adults with autism and especially targeted to promote greater independent functioning within the community. This session is designed to introduce three studies in which authors plan to examine the effects of assistive technology in order to promote independence and increase social acceptance in the community of adolescents with autism. Participants will be adolescents with moderate to severe autism between the ages of 15 to 21. All three studies will use multiple baseline treatment designs across students, across environments, and/ or across behaviors. The data will be collected 3 to 5 times per week over 2-months periods. The authors hope to demonstrate the effective use of assistive technology for adolescents with autism and to promote the widespread use of technology for people with autism and other disabilities.

Use of Bluetooth Technology to Promote Independent Responding in the Community: Reducing Stigma of Prompting. Gloria M. Satriale (PAAL), AVI GLICKMAN (PAAL), Kaori Nepo (PAAL), Emily E. Genter (Teacher - PAAL), George Jennings (PAAL)

Abstract: The use of technology is one of great ways to improve our productivity and organization. Although there are not many studies available about the use of technology, especially in the community, it is hypothesized that people with developmental disabilities can benefit from current technology. The proposed study is designed to replicate the study by Satriale, Nepo, & Chance (2007) to evaluate the effects of technology to promote independence and social acceptance in the community for adolescents with autism. Participants in this study will be two male students diagnosed with moderate to severe autism between the ages of 15-21. Verbal prompts to complete tasks will be delivered through Bluetooth Technology and a remote cell phone. Multiple baseline treatment designs across behaviors/ environments will be used. The data will be collected 3-5 times per week over 2 month period. Social validity data will be also collected to assess the use of technology being perceived as less stigmatizing. Authors hope to demonstrate the positive effects of Bluetooth technology on reducing stigma, increasing social acceptance, thereby improving independence.

Use of Visual and Auditory Prompts via Watchminder and IPod to Promote Independent Engagement in Leisure/Exercise Routines. EMILY E. GENTER (Teacher - PAAL), Gloria M. Satriale (PAAL), Kaori Nepo (PAAL), Avi Glickman (PAAL), Lisa Boccio (PAAL)

Abstract: Advancement of technology has made implementation of assistive technology across environments easier, especially in the community due to the improved portability. The visual schedule can be programmed in the portable watch-like device (Watchminder) and the auditory prompts with music can be recorded on MP3 players such as IPods. The present study is designed to examine the effective use of technology (Watchminder and IPod) to promote independent functioning of adolescents with autism in the community. Two students diagnosed with moderate to severe autism between the ages of 15 to 21 will participate in the present study. Students will receive visual prompts through Watch Minder and/or auditory prompts through IPod to follow their exercise routines at the local fitness center. The data will be collected 3-5 times per week over 2 months period. Authors plan to demonstrate the effects of the use of current technology to promote independence and social acceptance of adolescents with autism by delivering visual prompts via a Watchminder and auditory prompts via IPod.

The Use of Video Modeling to Promote Independence in Self Caring Skills of Adolescents with Autism. KAORI NEPO (PAAL), Gloria M. Satriale (PAAL), Emily E. Genter (Teacher - PAAL), Avi Glickman (PAAL), Jess Zawacki (PAAL)

Abstract: The video modeling has been used as an effective teaching method to teach various skills including academic skills and social skills for children with autism. Despite the proven effectiveness, there are limited number of studies have been conducted for adolescents with autism. Now, more modes of technology are available to implement video modeling across environments including portable DVD players and digital picture frames. This study was designed to assess the effects of a video modeling via digital picture frames and water proof portable DVD players to enhance independence of adolescents with autism during showering and hygiene routines. The multiple baseline treatment design will be used across students diagnosed with moderate to severe autism. The data will be collected 3 to 5 times per week over 2 months. Authors hope to demonstrate the effectiveness of video modeling via digital picture frames and water proof DVD players to enhance independent functioning of students with autism and to increase social acceptance in the community.

#560 Symposium

5/26/2009
12:00 p.m. - 1:20 p.m.
North 124 B
AUT/EAB; Applied Behavior Analysis
BACB CE Offered. CE Instructor: Cheryl Davis, M.S.Ed., BCBA

Preference Assessment: Where Have we Been? Where are we Going?
Chair: Mary Rosswurm (Crossroads School for Children)
Discussant: Thomas L. Zane (The Center for Applied Behavior Analysis at The Sa)

Abstract: Preference Assessment has been a widely researched topic in the practical application of applied behavior analysis. This symposium will review the current literature on preference assessment, and two current research projects regarding assessing preferences. The first research presentation will be on assessing both the efficiency and accuracy of preference assessments. Can we assess students' preferences in a more timely manner and still find potential reinforcers. The second research presentation will present a study that compares multiple stimulus and forced-choice formats along two dimensions-duration to complete assessment, and the identification of stimuli verified to function as reinforcers.

A Review of Preference Assessment Literature. KEVIN HARDY (Crossroads School for Children), Ben Bruneau (Crossroads School for Children), Cheryl J. Davis (Consultant), Mary Rosswurm (Crossroads School for Children), Michele D. Brock (Crossroads School for Children), Thomas L. Zane (The Center for Applied Behavior Analysis at The Sa)

Abstract: Determining individual preferences has been researched throughout the years. From Pace to Fisher et al, we have studied how to best assess individuals preferences to determine likely reinforcers. This presentation will review all preference assessment literature to date to discuss the history and progress of assessing individuals' preference and what areas researchers still need to study. This presentation is designed to give an overview for the two latter presentations of actual preference assessment research to look at both the efficiency and accuracy of preference assessments with individuals with disabilities.

Efficiency with Forced Choice Preference Assessment: Comparing Multiple Presentation Techniques. CHERYL J. DAVIS (Consultant), Michele D. Brock (Crossroads School for Children), Mary Rosswurm (Crossroads School for Children), Kristen Walston (Crossroads School for Children), Bonnie Abbey-Waren (Crossroads School for Children), Thomas L. Zane (The Center for Applied Behavior Analysis at The Sa)

Abstract: Many advances have been made through the years on how to accurately assess preferences in individuals with disabilities thus increasing performance in both academic and behaviorally programming. Yet the techniques currently used are time and resource intensive. This symposium will review all literature published thus far on preference assessment, as well as two current research projects with children with autism and related disabilities. The research present is a comparison of different preference assessment techniques, comparing time to complete, accuracy of the preferences to function as reinforcement and the different presentation techniques. Additional data will be collected prior to the presentation to determine the most efficient and accurate method for forced choice preference assessments. Since time is of the essence with our clients, utilizing the most efficient means of assessing preferences will enhance best practices for all individuals.

The Clinical Utility of Two Reinforcement Preference Assessment Techniques: A Comparison of Duration of Assessment and Identification of Functional Reinforcers. SEAN FIELD (School at Springbrook), Jen Hanson (School at Springbrook), Brandon Nichols (School at Springbrook), Traci Lanner (Springbrook), Thomas L. Zane (The Center for Applied Behavior Analysis at The Sa)

Abstract: In order to maximize the learning of skills, it is crucial that the most powerful reinforcers be used. The research literature has described several different methods of reinforcement preference assessment, including forced choice, free-operant, and multiple stimulus array, to name but a few. Researchers have also tested many variables to determine their potential impact on identification of reinforcers, including setting events, duration of exposure to tested stimuli, and differing schedules of delivery. From a clinical perspective, an important question is what is the most efficient preference assessment that will produce the most valid identification of potential reinforcers? The purpose of this study was to compare multiple stimulus and forced-choice formats along two dimensions-duration to complete assessment, and the identification of stimuli verified to function as reinforcers. Several children diagnosed with developmental disabilities/autism served as subjects. Upon selection of several stimuli that could potentially have been reinforcing, experimenters conducted two types of preference assessments per subject – multiple stimulus array with replacement, and forced-choice, using the same items. When the three most preferred stimuli were identified in each format, experimenters then verified the reinforcing power by making each contingent upon a task that the subjects had not yet learned. Results will be presented in terms of duration of each procedure and to what extent each preferred stimulus functioned as a positive reinforcer.

#561 International Symposium

5/26/2009
12:00 p.m. - 1:20 p.m.
North 228
EAB/VRB; Experimental Analysis

Experimental Analysis of Equivalence Classes Formation and Transformation of Functions Through Analogical and Hierarchical Relations
Chair: Maria Sonsoles Valdivia Salas (University at Albany, State University of New York)

Abstract: This symposium brings together different topics from equivalence responding and Relational Frame Theory (RFT) fields. The first paper address the level of reinforcement and trial presentation as contributing factors in the formation of equivalence classes. It provides evidence of the importance of these factors using evoked potential and reaction times. The second presentation provides evidence of the contextual control over equivalence class formation. Specifically, this study explores if equivalence classes are more easily formed when contextual cues are held constant or varied over time.
The third presentation tries to provide a RFT account of the use of metaphors as clinical methods. Specifically, this study shows the conditions under which transformation of functions occurs through analogical relations. The fourth study provides evidence of the transformation of functions through hierarchical relations, distinction and equivalence relations. Participants were trained to respond to arbitrary stimuli as several relational contexts and then a complex relational network was formed. Functions were given

to some stimuli and the transformation of functions was observed according with the specific relational context.

The Relative Contribution of Level of Reinforcement and Trial Presentation of Equivalence Class Formation. TING WANG (Swansea University), Louise A. McHugh (University of Wales Swansea), Robert Whelan (University College Dublin)

Abstract: Level of reinforcement and trial presentation have been proposed as contributing factors in the formation of equivalence classes. The current study involved training 40 participants using a match-to-sample procedure to relate two- four member equivalence classes, while level of reinforcement and trial presentation was manipulated (i.e., high vs. low reinforcement; high vs. low trial presentation). Subsequently, the participants were exposed to a lexical decision task involving pairs of novel stimuli and pairs of stimuli from the trained equivalence classes. Event related potentials and response time on the lexical decision task were recorded. The findings indicated that an evoked potential waveform typically associated with semantic priming (N400) was shown to be more sensitive in the high reinforcement high trial presentation condition, rather than low reinforcement low trial presentation condition. Additionally, faster response times emerged when related equivalence class pairs were presented. The importance of reinforcement and trial presentation in training for equivalence class formation is discussed.

Contextual Control Over Equivalence Class Formation and Recall. PATRICIA BACH (Illinois Institute of Technology), Kevin Zalizniak (Illinois Institute of Technology)

Abstract: Contextual cues influence arbitrarily applicable derived relational responding. What is learned in one context may be more or less easily recalled in a similar or different context. The present study was designed to explore whether equivalence classes are more easily formed when contextual cues facilitate class formation and are subsequently more or less easily recalled when contextual cues are held constant or varied over time. A total of 30 subjects will complete the experiment in one of three conditions. Subjects were trained using a matching to sample procedure to relate three four member equivalence classes with one contextual feature related to members of a trained equivalence class. Participants returned a week later to test the previously learned equivalence classes with either no change in the contextual cue or with the contextual cues changed and also related to a different one of the three previously learned equivalence classes. Data collection is ongoing and we expect to show that initial contextual cues and contextual cues at follow-up differentially affect both response latency and number of trials to equivalence class formation. The implications for training and education will be discussed.

Transformation of Functions Through Analogical Relations: An Experimental Analysis of Metaphors as Clinical Method. FRANCISCO JOSE RUIZ-JIMENEZ (Universidad de Almeria), Carmen Luciano Soriano (University Almería, Spain)

Abstract: This paper presents a Relational Frame Theory account of the use of metaphors as effective clinical methods. A number of third wave therapies have shown increased interest in the use of metaphors (specially, Acceptance and Commitment Therapy), which have been successfully applied as part of the treatment of several psychological disorders. However, the conditions under which metaphors are useful and have a real impact on psychological functions have not been studied systematically, thus are not well understood. Most of the advances in behavior analysis to understand metaphors have been done under the umbrella of Relational Frame Theory (RFT). However, there was not any published study showing the conditions under which transformation of functions occur through analogical relations. The empirical study here presented attempts to provide a preliminary account of this issue, indicating some of the conditions under transformation of functions are more easily to occur and, subsequently, which metaphors can be more effectively used in therapy.

Transformation of Functions tThrough Hierarchical Frames. ENRIQUE GIL (Universidad de Almería), Carmen Luciano Soriano (Universidad de Almería), Francisco Jose Ruiz-Jimenez (Universidad de Almeria), Vanessa Sánchez (Universidad de Almeria)

Abstract: The Relational Frame Theory (RFT) literature has shown the transformation of functions in accordance with the relations of coordination, opposition, distinction or comparison. However, the published evidence concerning the conditions given rise to the transformation of functions in accordance with the relational frame of hierarchy is almost absent. The present study aims to show to advance in pursuing such a goal. Adults participants were involved in several phases where they learn to respond to arbitrary stimuli as the relational context of SAME, DISTINCTION, and HIERARCHY. Then, they were trained to acquire three-four members equivalence classes. Then, two relational networks of hierarchy among new stimuli and the stimuli of the equivalence classes were established. Then, different functions were given to the stimuli of the hierarchy and, finally, testing proceeded to see if they respond in accordance with the derived relations of hierarchy will emerge. An additional experiment followed to control for some internal threats. Results obtained showed that the procedures were appropriate as conditions for the emergence of derived transformation via the hierarchical relational context.

#562 Paper Session

5/26/2009
12:00 p.m. - 1:20 p.m.
North 221 AB
OBM

Organizational Training Methods
Chair: Barbara R. Bucklin (Accelerated Multimedia Education)

When Self-Pacing Goes Wrong: A Comparison of Two Methods for Reducing Computer-Based Racing. (Applied Behavior Analysis) DOUGLAS A. JOHNSON (Western Michigan University), Alyce M. Dickinson (Western Michigan University)

Abstract: Computer-based instruction (CBI) continues to grow as a training solution for business and industry, despite the fact that many other corporate training expenditures have remained fixed. A frequently cited benefit of using computer-based instruction is the ease of implementing learner self-pacing. However, self-pacing can also result in an important problem, namely, computer-based racing. Computer-based racing is a phenonemon where learners respond so quickly within CBI that mistakes are made, even on well-known material. Such racing undermines the effectiveness of CBI by eliminating meaningful responses on the part of the learner and can prevent CBI learning environments from reaching their true potential. This paper presents findings from a study designed to compare traditional CBI with two forms of CBI designed to reduce computer-based racing: incentives/disincentives and postfeedback delays. All three formats are evaluated in terms of both performance and satisfaction using a between group repeated measures design with pretest and posttest.

Applying Fluency in Automotive Retail Settings. (Applied Behavior Analysis) BARBARA R. BUCKLIN (Ardent Learning, Inc.), Lori H. Diener (Ardent Learning, Inc.)

Abstract: The purpose of this session is to demonstrate real-world examples of fluency training in automotive retail settings and to illustrate how these examples were created. The presenters will start with a brief overview of the fluency concept (accuracy plus speed of responding that leads to long term retention and application) as well as a discussion of research that supports its benefits. Following this overview, the examples will be provided along with a description of how each was designed, developed, and evaluated. As the presenters describe their process for creating the fluency examples, they will provide a fluency-building job aid that serves as a step-by-step guide. This job aid includes: (1) how to gather up front assessment information (i.e., environment and learner variables), (2) considerations for designing the knowledge-building portion of fluency training, (3) how to effectively design fluency activities, and (4) the elements of a measurement system to confirm on-the-job application of the trained knowledge and skills.

A Comparison of Three Training Methods on the Acquisition and Retention of Automotive Product Knowledge. (Applied Behavior Analysis) RHIANNON M. FANTE (Stephen F. Austin State University), Alyce M. Dickinson (Western Michigan University)

Abstract: The purpose of this study was to compare the effects of a traditional (non-fluency) web-based training program with and without study objectives with a web-based fluency-building training program on the acquisition and retention of automotive product knowledge. The effects of the training conditions were assessed by how accurately and quickly participants responded on a product knowledge test immediately after training, four weeks after training, and eight weeks after training. A three-group between subjects design was used with 20 college students in each group. Results indicated that participants in the fluency training group were more accurate and fluent immediately after training, and four and eight weeks after training than participants in the other two training groups. Although these results suggest that fluency-building training leads to higher levels of performance and retention, practice was not controlled. This study extended previous studies because it examined the effects of fluency training with adult learners who completed training programs that were designed to train actual sales representatives in the automotive industry.