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# NYSABA NEWS

New York State Association for Behavior Analysis, Inc. Paving the Way for ABA

# Winter 2014

### President's Message

By Debbi Napolitano, PhD, BCBA-D, 2013-2014 NYSABA President

2014 is here and we have so much to celebrate! I want to begin with a big THANK YOU! You all deserve a huge pat on the back. You made this happen. I would be remiss if I did not also acknowledge the huge contributions of our legislative committee, headed by Dr. Kimberly Shamoun, with much support from Drs. Vicki Madaus Knapp, Steven Anderson, David Roll, and Dennis Mozingo. Also, the folks on Long Island, with leadership from Debora Thivierge, who have worked diligently with one of our incredible sponsors, former senator, Charles Fuschillo. Mr. Fuschillo and Assembly Leader Joseph Morelle were honored this year with NYSABA's legislative leadership award for their tireless advocacy on behalf of the consumers of behavior analysis services. Finally, we must recognize the incredible support of the



Association of Professional Behavior Analysts (APBA) and Dr. Gina Green, the Behavior Analyst Certification Board (BACB) and Dr. Jim Carr, Autism Speaks and our legislative council, Kevin Quinn! Kim will continue to keep everyone informed of next steps. I'm beginning to think we can do anything. I think obtaining licensure is a bit like that lore about having a baby—that as soon as it happens you forget all the pain (well almost).

No rest as they say, and in that vein the board met in January for a day of strategic planning. The good folks from Binghamton University hosted us for the day. This is such an exciting time for our field in NY and across the country. We need to be sure we are focused on what is most important for behavior analysis and behavior analysts in NY. We started with the feedback we received from you at the conference and began organizing it into general categories. We left the meeting with working plans for NYSABA moving forward. Look for many exciting new areas of leadership and support to come from NYSABA for programs of higher learning, for practitioners, and for consumers.

We received a great response and great feedback about our 24<sup>th</sup> annual conference in Saratoga Springs and are using it as we plan our 25<sup>th</sup>! We are looking so forward to the conference this year as we approach our silver anniversary. We are hoping to honor our history while continuing to look toward the future. Dr. Vicki Knapp, our past president, Dr. Frank Cicero, our president-elect, and Shari Schatzman, Director of Training for Eden II are the primary steering committee, with much support from a great group of volunteers! We think this is going to be our best year yet! Look for more information and the call for papers as the year progresses.

Continued on page 2

# NYSABA NEWS

# Message from the President continued

This year we added a new representative at large, Bobby Newman. Elections for next year's new positions will occur in the early fall. We will have several seats to fill, including our president-elect as Frank steps into the president's role and I step down into the past-president role. Please keep your eyes out for the announcements, which will be posted on our website, Facebook, Twitter and eblasted to everyone on our mailing list. You can make a real difference for behavior analysis in NY through participation on the NYSABA board!

Looking forward to another productive and exciting year!

Kindest regards, Debbi

### We Have a License, Now What?

By Kim Shamoun, PhD, BCBA-D, Legislative Committee Chair



On January 10th, 2014, Governor Cuomo signed the bill to license behavior analysts into law, making NY the 13th state to have licensure for behavior analysts. This was a major accomplishment for NYSABA and the field of behavior analysis that will surely benefit many individuals with autism and their families. NYSABA is truly grateful for the leadership of lobbyist, Kevin Quinn, Esq. of Whiteman, Osterman, and Hannah. Kevin Quinn worked tirelessly with the sponsors of the bill, Assemblyman Joseph Morelle and Senator Charles Fuschillo, as well as Autism Speaks who has been a tremendous advocate for the passage of this bill. This law would not exist if it wasn't for the passage of the autism insurance law in 2012 and the efforts of these individuals to ensure that this law be implemented properly.

Now that we have the new law, there are many questions regarding the process of becoming licensed. NYSABA has posted a Q and A page on its

website which will hopefully answer some of these questions, but there are several questions that we don't have answers to yet. While a new Behavior Analyst Licensing Board will need to be established in NY, who will be tasked with developing the process and requirements for becoming licensed, there will be a provision for immediate licensure. Immediate licensure will require BCBAs to fill out the form (soon to be made available to us) for the character and fitness requirement, submit proof of BCBA certification, and pay the \$200 fee. Immediate state certification of BCaBAs will require BCaBAs to fill out the character and fitness form, submit proof of BCaBA certification, and pay the \$170 fee. The immediate licensure option will be available to BCBAs until January 10th, 2016. This is the case for anyone who obtains national certification by the BACB, meets the character and fitness requirement, shows proof of certification, and pays the fee prior to January 10<sup>th</sup>, 2016. Continued on page 4

### NYSABA 2013-2014 **EXECUTIVE COMMITTEE**

Deborah Napolitano, PhD, BCBA-D President

Frank Cicero, PhD, BCBA-D President Elect

Vicki Madaus Knapp, PhD, BCBA-D Past President & Conference Chair

Linda Matey, MS, BCBA Treasurer

Dana Reinecke, PhD, BCBA-D Secretary

#### **BOARD OF DIRECTORS**

Rachel N. S. Cavalari, PhD, BCBA-D Student Activities Chair

Sheila Jodlowski, PhD, BCBA-D Representative at Large

Emily Jones, PhD, BCBA-D Representative at Large

Traci Lanner, MA, BCBA Representative at Large

Dan Lesinski, MS Consumer Representative

Denise M. Lombardi, CPA Finance Chair

David McAdam, PhD, BCBA-D Education Chair

Bobby Newman, PhD, BCBA-D Representative at Large

Kim Shamoun, PhD, BCBA-D Legislative Chair

Niall Toner, MA, BCBA Membership Chair

Heather Walker, MS, BCBA Marketing Committee Chair & Newsletter Editor

### **NYSABA Mission Statement**

NYSABA is the official representative for behavior analysis across New York. NYSABA is the state affiliate of the Association for Behavior Analysis International, an international organization devoted to the study of the experimental analysis of behavior. NYSABA also is an affiliate organization of the Association of Professional Behavior Analysts whose mission is to promote and advance the science and practice of applied behavior analysis.

NYSABA represents scientists, scholars, and practitioners in behavior analysis and related fields. NYSABA hosts statewide and local conferences, offers resources, provides social networking and communication to support behavior analysis. NYSABA supports the ethical, humane, and effective application of behavior analysis.

# Celebrate 25 years of NYSABA!!

# Join us for NYSABA's 25th Annual Conference



# **SAVETHE DATE** October 16-17, 2014

Pre-Conference workshops October 15, 2014

The Saratoga Hilton in Saratoga Springs, NY



# NYSABA Student Activities Committee Update

By Rachel Cavalari, PhD, BCBA-D, Student Activities Committee Chair

Happy New Year from the NYSABA Student Activities Committee! We look forward to a productive and exciting year in 2014. Before we move forward we'd like to take a few moments to look back at our events and activities of 2013.

At our 24th annual conference, we were proud to present the inaugural Jeffery P. Hamelin Student Research Award for Effective Dissemination of Behavior Analysis in Research to two of our student members. Congratulations to our winners:



First place (left) - Maya Madzharova from The Graduate Center and Queens College, CUNY for her poster entitled, "Effects of Modeling and Feedback on Mother's Implementation of Peer-to-Peer Manding."

Second place (right) - Mariam Chohan from The Graduate Center and Queens College, CUNY for her poster entitled, "Using Visual Prompts and Reinforcement to Teach Facial Expressions and Gaze Shift with Eye Contact to Respond to and Initiate Joint Attention."

We would also like to personally thank our NYSABA Student Ambassadors who volunteered their time to make the conference a success: Angela Ariza, Lisa Cutrona, Meghan Donovan, Theresa Fiani, Caitlin Jelinek, Laura Krstovska-Guerrero, Lauren Kryzak (2013-2014 Student Representative), Adrienne Marchese, Katherine McGowen, Jaimie Sarubbi, and Zhichun Zhou. As our student membership continues to grow, we look forward to developing more resources for our student members. We are actively

incorporating your feedback from the NYSABA Student Survey into our plans for the coming year to create more opportunities to promote student member professional development. What can you do to contribute to NYSABA in 2014?

- Renew your membership
- Encourage other students in your program or supervised work setting to join NYSABA
- Apply for the NYSABA 2014-2015 Student Representative Student Activities Committee position (application requests to be released in March)
- Participate in NYSABA events by attending or presenting at our conferences, applying for the student research competition, or
- Provide input about activities or resources you would like to see made available to student members in 2014, by emailing your NYSABA Student Activities Chair, Dr. Rachel Cavalari

# We Have a License, Now What? continued

With this new licensure, we believe that this is the time for behavior analysts in NY who are not currently members of NYSABA to join. Not only is NYSABA the state chapter of ABAI and affiliate of APBA, we are also the state organization that will be working diligently on developing resources for behavior analysts, such as: forms, webinars, and a public policy section of our newsletter that will function to keep its membership informed regarding developments in our field.

This is an exciting time for behavior analysts and I look forward to a productive 2014 along with a very positive "state of our practice" address at our 2014 conference in Saratoga!

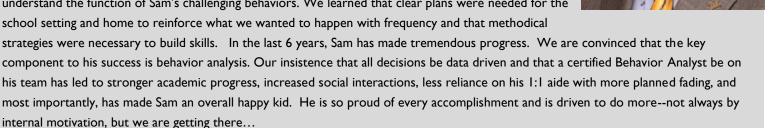
I would also like to welcome the newest member of our legislative committee, Michael Giangregorio, who has been very supportive of NYSABA, in addition to his advocacy work in getting JP Morgan to cover ABA treatment for autism. Welcome, Michael!

#### Consumer Corner: Insist on Science

Dan Lesinski, Sam's Dad and Consumer Representative

The signing of the licensing bill for Behavior Analysts in New York State by Governor Cuomo in early January removes an important obstacle for individuals with autism spectrum disorders (ASD) to access services. This was a piece of legislation needed to fully implement the Autism Insurance Bill that was signed into law in late 2012. Through this licensing bill, individuals will soon be able to receive necessary services in their home from a Behavior Analyst with coverage from their insurance company. Individuals and their families will be able to get help with challenges that include wandering away from home, aggression, toileting, eating, developing relationships and much more. Please contact your insurance company for details.

Our son Sam, his sister Sarah, my wife and I are blessed to have had a great Behavior Analyst on his education team 6 years ago. We learned that a critically important piece of our planning was to understand the function of Sam's challenging behaviors. We learned that clear plans were needed for the school setting and home to reinforce what we wanted to happen with frequency and that methodical



We are one of the few families at Sam's school that get behavioral supports from a certified Behavior Analyst. I wish I could tell all the other families to insist on certified (soon to be licensed) Behavior Analysts for their son or daughter's education team. Schools insist (and there are regulations) that teachers be certified in their respective subject area--an English teacher is not competent to teach Biology. However, it is often the case that social workers and many other well intended people try to be Behavior Analysts. Some of these folks have great experience and have facilitated good outcomes. I know many great nurses. They are very knowledgeable about medications, but they are not allowed to prescribe medicines for a reason. Behavior Analysis is a science. We need to insist on a level of knowledge, skill and execution of this science. I am so happy that the licensing bill was signed. It will pave a path for more Behavior Analysts to practice in New York and lay the foundation for licensed people to provide behavior services across all settings. Please tell everyone you can to insist on science--science works.



# Do you have suggestions for newsletter content? Heather Walker and share your ideas. **Email**



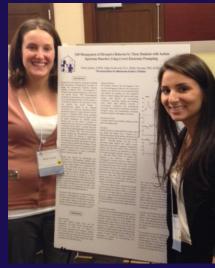
Nicole Pearson and Niall Toner



Brittany Pata



Al Pfadt



Ashley Krokowski and Allison Epstein



Rachel Cavalari, Ray Romanczyk, Nate Kruser



Wayne Fisher



Emily Jones and Ivana Krstovska Guerrero



Cathleen Piazza



Amanda Doll, Daren Cerrone, Al Pfadt, Kim Arruda, Frank Cicero



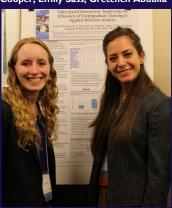
Megan Cooper, Emily Sass, Gretchen Abdulla



Brighid Gordon, Dan Lesinski, Louise Kolz, Korey Rogers, Kristen Arnone, Amy Burkette, Julie Cenzi, and Beth Speares



Lauren Galanaugh and Eric Cruz



Hallie Steinman and Lisa Cutrona

# **Awards: NYSABA Conference 2013**

John W. Jacobson Award



Presented to Dr. Gina Green by Dr. Steven
Anderson (left) and Dr. David Roll (right)

**Award for Human Service in Applied Behavior Analysis** 



Presented to Melissa Slobin, MA, CCC-SLP by Dr. Bobby Newman

**Outstanding Contribution to the Field of Behavior Analysis** 



Presented to Dr. David Roll by Dr. Kim Shamoun

### **Award for Excellence in Legislative Leadership**



Presented to Tim Ellis on behalf of The Honorable Charles J. Fuschillo, Jr. by Dr. Kim Shamoun

### **NYSABA Board Participates in Strategic Planning Retreat**

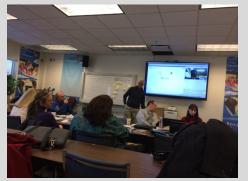
By Vicki M. Knapp, PhD, BCBA-D, NYSABA Past-President and Conference Committee Chair

The NYSABA Board has focused on developing a comprehensive strategic plan to guide our association's activities and focus. To accomplish this, the board asked the 2013 NYSABA Annual Conference participants to identify what NYSABA should Continue to do, Stop doing, and Start doing. On January 24, 2014, the NYSABA board participated in a Strategic Planning retreat hosted by Linda Matey, NYSABA Treasurer, and Rachel Cavalari, NYSABA Student Activities Chairperson, at Binghamton University. Steve Anderson, CEO of Summit Educational Resources and NYSABA Legislative Committee member, led the group in the strategic planning exercises. Kevin Quinn, NYSABA's Legal Counsel, also joined the board for the meeting.

Dr. Anderson led the NYSABA board through a Strengths, Weaknesses, Opportunities, and Threats (SWOT) exercise, where each board member wrote down as many items or examples of each category for each of the SWOT headings as possible. The items and examples within each category were then formed into subcategories of their own. For example, in the area of strengths, the board wrote items including, great annual conference and excellent speakers at the conference. The many responses related to the conference were summarized as the subcategory of "Conference" in the Strengths area. The board then reviewed and added the Continue, Stop, Start responses from the 2013 Annual Conference and rank-ordered each subcategory within the SWOT areas. The top 6 responses were then further analyzed and consolidated to create a list of 3 strategic areas for NYSABA. These areas are (in no particular order):



The NYSABA board included many of the subcategories within those three areas. For example, the important work we need to do to increase our scope of practice was embedded into the Increase Public Awareness of NYSABA area. We separated into workgroups and developed goals and objectives for each area. The board is currently in the process of finalizing the goals, objectives, and associated work plans for each strategic area. The NYSABA Board's final strategic planning documents and progress on these goals and objectives will be reported in upcoming newsletters.







# Perspectives on Behavioral Momentum Theory

By Heather Walker, MS, BCBA, Marketing Committee Chair

If you attended NYSABA's 2013 conference there is a good chance you heard "behavioral momentum" mentioned in a keynote address or presentation. Whether it was a function of the individual behavior analysts giving keynote addresses and presentations, an indication of research being conducted in the field of behavior analysis, or whether it was simply a coincidence, Behavioral Momentum Theory (BMT) stood out as an underlying "theme" of our 2013 conference. Drs. Ahearn, Dube, and Fisher were all kind enough to summarize and share portions of their conference presentations as part of NYSABA's newsletter. The purpose of this series of short abstracts is to provide a brief overview of research on BMT (see Dube, Ahearn, Lionello-DeNolf, & McIlvane, 2009 for an in-depth review), revisit information presented at the conference, provide examples of the broad relevance and application of BMT, and outline implications of BMT for clinicians in applied settings. *Continued on page 13* 

# 2013: A Year to Celebrate Advocacy



Pictured left to right: Ann Cole, Assemblyman Joe Morelle, Debbi Napolitano, Heather Walker, Julie Buick, and Mary Hadley

Mary Hadley, of Hillside Family of Agencies, Debbi Napolitano, President of NYSABA, Heather Walker, Board Member of NYSABA, Julie Buick, of The Advocacy Center, and Ann Cole of AutismUp present the Award for Excellence in Legislative Leadership to Assemblyman Joe Morelle for his tireless legislative work on behalf of children and families living with autism as well as behavior analysts.



The 2<sup>nd</sup> annual Long Island Behavior Analysis Conference (LIBAC) held at the Uniondale Marriott on December 6th and 7th 2013 was a huge success and NYSABA was pleased to be a part of this event. On the 6th, former Senator Charles J. Fuschillo, Jr. presented the 2013 Autism Advocacy in Action Award to Judith Ursitti, Autism Speaks Regional Director of State Advocacy Relations. Judith Ursitti has been a leader in advocacy for the new autism insurance law of 2012 as well as the new law to license behavior analysts and certify assistant behavior analysts at the state level in New York. Additionally, on the evening of the 6th, Judith led a rally to provide an update to attendees on the status of implementation of the new autism insurance law and to answer questions regarding the status of the Bill to license behavior analysts.



Pictured left to right: Bobby Newman, Deb Thivierge, Judith Ursitti, former Senator Charles Fuschillo, Michael Giangregorio, and James Carr.

NYSABA's Legislative Chair, Kim Shamoun, provided a brief update and answered questions regarding the status of the licensure bill. Dana Reinecke, NYSABA's secretary, provided a Legislative update earlier in the day updating attendees on NYSABA's efforts to obtain licensure and most importantly her efforts to obtain signatures on letters to be sent to the Governor was a huge success. We would like to thank former Senator Fuschillo for hand delivering the 90+ letters to Governor Cuomo's office. These efforts, along with ELIJA's sponsorship of the event, allowed for a strong finish to 2013 and a wonderful start to 2014!

# PLATINUM SPONSOR HIGHLIGHT—ELIJA



Long Island Behavior Analysis Conference: December 5<sup>th</sup> & 6<sup>th</sup>

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www.ELIJA.org

#### THE ELIJA SCHOOL

The ELIJA School provides an individualized 12-month educational and treatment program for school-aged children. We serve the needs of our students with science-based treatments, utilizing the principles of Applied Behavior Analysis (ABA). Our program provides an intensive, one-to-one student to teacher ratio in a comprehensive instructional setting within a classroom environment. The ELIJA School focuses on the development of functional communication, academic, social and life skills. To substantiate our progress, the school conducts external evaluations to monitor the quality and effectiveness of our educational and treatment program. The ELIJA School is now accepting applications for the 2014-2015 school year.

#### **OUTREACH PROGRAM**

For those learners not enrolled in the school, The ELIJA School Outreach Program provides support, education and training to parents, family members, caregivers, and professionals—as well as conducting private consultations—within and outside of the school's community.

#### THE ELIJA FOUNDATION

The ELIJA Foundation is a not-for-profit, 501c (3) organization serving parents, educators, professionals, and caregivers of children with Autism Spectrum Disorders (ASD) on Long Island, New York. Since 2002, The ELIJA Foundation has provided the community with educational opportunities that focus on improving the quality of programs and services available to children with Autism. The Foundation's focus is to empower families and improve the competency levels of professionals, by providing training on the most advanced treatment and educational strategies that maximize the potential of those affected by Autism. The Foundation hosts workshops that give the community access to local and nationally recognized Autism professionals who present topics which will allow those with Autism to more fully participate in their families, communities and educational settings. The ELIJA Foundation is committed to offering the most comprehensive information that is geared toward improving the lives of persons with Autism and their families.

# PLATINUM SPONSOR HIGHLIGHT



With a staff of more than 550 – including eight Ph.Ds and 15 Board Certified Behavior Analysts, Summit is Western New York's leading provider of evidence-based programs and services to more than 2000 children and young adults with autism and social or behavioral challenges.

# **Educational Programs**

Early Autism Program Summit Academy (school for ages 3-21)

### Family Support Programs

In-Home Behavioral Supports & Respite Site-Based Respite Community Habilitation Service Coordination

### **Behavioral Health Services**

Diagnostic Evaluations
Summer Treatment Programs
Behavioral Health Clinic
ABAworks Autism Clinic
Consulting Services

#### **Adult Services**

Vocational Services Supported Employment Project Search

Summit is proud to support NYSABA's advocacy and public policy initiatives and serves as a resource in Western New York. We encourage and support our staff who are interested in obtaining the BCBA credential with professional development, mentoring, and supervision. You'll find staff members throughout Summit who have earned their BCBA. We're proud to recognize them:















Pictured from left to right are:

Stephen R. Anderson, Ph.D, BCBA-D, Chief Executive Officer, NYSABA Former President and Former Legislative Chair Amy Armstrong, MS. Ed, BCBA, Assistant Director ABAworks Autism Clinic

Michelle A. Hickman, Ph.D., BCBA-D, Director of Curriculum Instruction and Training

Kathleen Honer, Psy.D, BCBA-D, Director ABAworks Autism Clinic

Amy Jablonski, Psy.D., BCBA-D, Chief Operating Officer

Vicki Knapp, Ph.D., BCBA-D, Director Quality Improvement and Professional Development, NYSABA Past President

Steven K. Verstraete, MA,BCBA, Director of Behavior Support Services

Not pictured are Helen Marie Bateman, BS, BCABA – Occupational Therapist; Mary Erbacher MS Ed., CCC-SLP, BCBA – Clinical Coordinator Communication; Michelle Forte, MS Ed., BCBA - Teacher; Vanessa Patrone, MA, BCBA – Community Consultant and Trainer; Jennifer Rumfola, MA, CCC-SLP, BCBA – ABAworks Autism Clinic Therapist; Johana Shaflucas, MS Ed., BCBA – Behavior Support Supervising Clinician; Carol Shaw, MS Ed., BCBA, Teacher- Early Autism Program; Heather Walker, MS, BCBA, ABAworks Autism Clinic - Therapist, NYSABA Board Member

For more information about Summit, visit www.summited.org

Supporting Behavior Analysis in New York State

# Don't miss the 4<sup>th</sup> Annual APBA Convention

March 27-29, 2014 Sheraton New Orleans

### **Keynote Addresses**

- Critical Thinking in Clinical Practice –Dr. Eileen Gambrill, University of California, Berkeley
- Why Every Behavior Analyst Should be Concerned About America's Gambling Addiction – Dr. Mark Dixon, Southern Illinois University
- Leadership Lessons from Behavioral and Psychological Science: Bringing the Best Out of Yourself and Others – Dr. E. Scott Geller, Virginia Tech

Jerry Shook Award and Address

The Present and Future

History of ABA

James M. Johnston

Auburn University

### Association of



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- ★ Peer-reviewed research symposia, posters, and student papers
- ★ High-value BACB Type 2 CEUs
- ★ Social and professional networking opportunities
- ★ Fantastic venue in the heart of New Orleans, across Canal Street from the famous French Quarter, blocks from the riverfront, and a short distance from wonderful restaurants, museums, art galleries, nightclubs, shops, and theaters
- \* Reduced registration, workshop, and CEU fees for APBA members
  - \* Details, registration, and program at www.apbahome.net

HURRY! EARLY REGISTRATION ENDS MARCH 5

# NYSABA NEWS

# Perspectives on Behavioral Momentum Theory continued

BMT applies Newton's first law of motion to the study of operant behavior. This basic tenet of classical mechanics states that objects at rest tend to stay at rest and objects in motion tend to stay in motion unless acted upon by an external variable (Thomson & Tate, 1867). Momentum or "mass in motion" can be quantified using the product of mass and velocity. From this equation we can conclude that momentum can be large if either or both mass or velocity is large. For example, a bowling ball weighing approximately 10 kg could have the same momentum as a tennis ball weighing approximately .10 kg based on the velocity of the two different objects. In behavioral terms, momentum represents persistence of behavior while the baseline rate of responding corresponds to velocity and resistance to change when disruption is introduced corresponds to mass (Mace, et al., 1990). The equation used to quantify behavioral momentum is less straightforward than that of mechanical momentum. Nevin (1996) cautions us against strict application of the momentum metaphor to behavioral concepts as it requires some speculation; however, BMT offers a framework through which we can analyze variables such as persistence and lack thereof, resistance to change, extinction, and resurgence.

Early research in BMT was conducted in labs using pigeons, rats, and monkeys. In a 1983 study, Nevin, Mandell, and Atak measured resistance to change by analyzing the response rates of six pigeons under multiple variable-interval variable-interval schedules (multiple VI VI). Reinforcement schedules were indicated by distinct stimuli (red versus green light) and varied based on the rate of food availability. When responding under multiple schedules stabilized, a 'disrupter' was introduced (free feeding between schedule components) to test which schedules were associated with greater resistance to change. Results of this study indicated that resistance to change was greater in schedules associated with higher rates of reinforcement. In other words, higher levels of responding within denser schedules of reinforcement established a greater momentum; therefore, behavior was more resistant to change. Subsequent research conducted with human participants in natural settings, such as Mace et al. (1990), measured resistance to change using a procedure similar to that demonstrated by Nevin, Mandell, and Atak (1983). The participants in the Mace et al. (1990) study were two adult men living in a group home and the targeted behavior was sorting colored kitchen utensils. The color of the utensils signaled the schedule of reinforcement in effect and the 'disrupter' was a television on at normal volume. As predicted, for both participants, high levels of responding during the richer schedule of reinforcement persisted when the distracting stimulus was introduced, while responding under the leaner schedule decreased significantly.

Translational research has yielded a greater understanding of behavioral momentum and how it can be utilized in applied settings. One area of focus has been the treatment of noncompliance. The high-probability instruction sequence is based on the concept of building behavioral momentum by increasing response rates and corresponding levels of reinforcement prior to issuing a directive that, in the past, has been associated with low response rates and limited reinforcement. High-probability instructions are those with which an individual predictably and consistently complies, whereas low-probability instructions are those with which an individual rarely complies. Research indicates that for some individuals who display noncompliance, delivering a series of high-probability requests immediately before presenting a low-probability request may increase the likelihood of compliance with the low-probability request. Mace et al. (1988) conducted a series of experiments during which they implemented a high-probability instruction sequence to increase compliance with "do" and "don't" commands. Their results indicated that use of a high-probability instruction sequence was effective in increasing compliance with low-probability requests for most participants; however, the larger the interval of time between the last high-probability instruction and the low-probability instruction the less likely the individual was to comply with the high-probability request.

BMT has been useful in developing treatment options, but is also relevant when considering the side-effects of procedures such as extinction and differential reinforcement. For example, when previously reinforced problem behavior is extinguished and an alternative response is reinforced, there is a risk of resurgence if rates of responding and overall levels of reinforcement associated with the alternative response fall below those experienced prior to intervention. A 2011 study by Shahan and Sweeney examined the phenomenon of resurgence within the framework of BMT. Their results indicated that extinction and reinforcement for alternative behavior both act as disrupters that suppress problem behavior, however; they also serve to strengthen the stimulus-reinforcer relation which can lead to greater behavioral momentum when reinforcement for alternative behavior decreases or ceases during generalization procedures. BMT and models of resurgence can help practitioners understand why problem behavior may persist or even increase despite careful implementation of function-based treatment procedures. *Continued on page 14* 

# Perspectives on Behavioral Momentum Theory continued

To conclude, it is not possible to provide an exhaustive overview of behavioral momentum theory and applicable research in this format; however, this article serves to provide a brief summary of behavioral momentum theory and how it applies to work being conducted in experimental and applied settings. NYSABA's 2013 conference program was filled with quality presentations on a variety of topics relevant to practitioners. This series of articles touches on only a small portion of what could have been highlighted from the conference. To view a selection of presentations made by Drs. Ahearn, Dube, Fisher and others please visit www.nysaba.org.

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# Behavioral Momentum Theory: Implications for Applied Settings

By William Ahearn, PhD, BCBA-D

Applied behavior analysts generally have limited exposure to, and thus understanding of, the behavioral momentum metaphor. Behavioral momentum can be interpreted as a reconceptualization of the notion of response strength. Skinner proposed that the strength of an operant response was well represented by the rate of occurrence of the response class. However, Nevin and colleagues have demonstrated response rate alone is not the best measure of behavioral persistence. Behavioral momentum theory proposes that whereas steady-state response rate depends on response-reinforcer contingencies, resistance to change depends on the correlation between reinforcers and environmental stimuli such as the cues signaling multiple-schedule components (for a thorough review see Nevin &



Grace, 2000). With respect to momentum, resistance to change is proposed as being akin to an operant's mass while rate of responding is analogous to velocity.

There are many possible applied implications that can be drawn from the basic research generated by behavioral momentum. For example, differential reinforcement of alternative behavior is a well-established best practice in treating problem behavior. However, behavioral momentum research suggests that the addition of alternative reinforcers in one component both weakens the relation between target responding and reinforcers and strengthens the stimulus-reinforcer relation in that component. This means that differential reinforcement may decrease the level of occurrence of problem behavior but it might also make problem behavior more persistent overall. This is obviously concerning in that an effective treatment may paradoxically make the problem behavior stronger or more persistent. A solution to this problem, however, may be to introduce unique discriminative stimuli when training alternative responding (see Mace et al., 2010). Though more research is necessary to both demonstrate that DRA can increase the persistence of problem behavior and to determine whether persistence can be effectively dampened, behavioral momentum theory provides a useful concept that clinicians should learn more about. NYSABA, and several other behavior analytic organizations, seek to provide important learning opportunities for applied behavior analysts to learn more about the science of behavior such that they can more artfully apply the principles of learning while providing programming for producing socially significant changes in behavior.

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### Translational Research: Behavioral Momentum Theory

By William Dube, PhD

The goal of translational behavior analysis in intellectual disabilities is to apply the insights gained from basic research to the treatment or prevention of a broad array of behavioral problems; examples include disruptive, aggressive, and self-injurious behavior; stereotypy that interferes with adaptive functioning; educational failures; feeding problems; sleep disturbances; excessive "noncompliance," and others. In my presentation, one of the examples illustrating the translational continuum from basic research to clinical application was taken from behavioral momentum research. The basic science research occurred largely in operant laboratories with nonhuman subjects such as pigeons, with food deprivation and primary reinforcers (e.g., see Nevin & Grace, 2000). "Early stage" translational research took place in human operant laboratories with individuals who had intellectual disabilities, and laboratory-type stimuli and responses,



but with conditioned reinforcers -- tokens later exchanged for a variety of other reinforcers (Dube et al 2000, 2003). A later stage along the translational continuum introduced extra-laboratory stimuli and responses from a special-education classroom (Parry-Cruwys et al., 2011) or residence (Mace et al., 1990). Still further along, the responses and consequences were those of clinically relevant problem behavior, studied in research settings (Ahearn et al., 2003; MacDonald et al., 2013). In aggregate, the results of these (and other) studies showed that the relations between signaled rates of reinforcement and behavioral resistance to change were similar in nonhumans and humans. One message for clinicians is that reinforcer-based procedures such as DRA or NCR may be successful in reducing the frequency of problem behavior, but the introduction of additional reinforcers into the same stimulus situation as the problem behavior may have the unintended side effect of increasing the problem behavior's persistence. A second message for clinicians is that it may take a relatively long history of reinforcement before the socially acceptable alternatives to problem behavior accrue sufficient "momentum" to withstand challenges to treatment (e.g., Wacker et al., 2011).

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Are you a student or do you know a student who would be interested in developing content for NYSABA's newsletter? Contact Heather Walker for more information.

# Behavioral Momentum Theory and Functional Communication Training

By Wayne Fisher, PhD, BCBA-D

Children with intellectual disability often display severe destructive behaviors (e.g., aggression, self-injurious behavior) that pose significant risks to self or others and represent overwhelming barriers to community integration. These destructive behaviors are often treated with behavioral interventions derived from a functional analysis, which is used to identify the environmental antecedents and consequences that occasion and reinforce the target response. One such treatment is called functional communication training (FCT), which involves extinction of destructive behavior and reinforcement of an alternative communication response with the consequence that previously reinforced destructive behavior. For example, a child who displays aggression in order to get adult attention would be taught to get that attention via an appropriate communication response and also taught that destructive behavior no longer produces



attention. Research results indicate that interventions based on functional analysis, like FCT, typically reduce problem behavior by 90% or more and are much more effective than other behavioral treatments.

Although FCT has been shown to be a highly effective treatment when implemented in controlled environments by highly trained therapists, treatment relapse often occurs when a caregiver is unable to accurately carry out the procedures in the natural environment. For example, a caregiver of a child with severe aggression may be unable to deliver the functional reinforcer (e.g., attention) when the child emits the FCT response because the caregiver is attending to a sick sibling. During this time when the FCT response goes unreinforced, the child's aggression often increases; a form of relapse called "resurgence". In prior research on FCT, when attempts have been made to teach children with destructive behavior to tolerate these periods when the FCT goes unreinforced, treatment efficacy was markedly reduced in more than ½ of the cases.

Our current research aims to use behavioral momentum theory (BMT) combined with stimulus control techniques to address these limitations of FCT. BMT is a quantitative theory of behavior that is analogous to the classical mechanics of the momentum of physical objects. That is, in classical mechanics, the momentum of an object is a joint function of its mass and its velocity. If a cannon ball and a beach ball were both coming toward you at equal speed and you could only avoid being hit by one of them, it would be much better to avoid the cannon ball because of its greater mass. In behavioral momentum theory, the baseline rate of a response is equivalent to the velocity of a moving object and the rate of reinforcement for a response is equivalent to the mass of a moving object. That is, a response that produced a low rate of reinforcement in the past would have a level of momentum similar to the beach ball whereas a response that produced a high rate of reinforcement in the past would have a level of momentum similar to the cannon ball, and this latter response would be much harder to stop. We believe that we can use BMT to alter FCT in ways that should decrease the *reinforcement mass* of destructive behavior, which in turn should make it less likely that this behavior will persist or resurge in the natural environment at those times when a parent cannot deliver reinforcement for the FCT response.

The New York State Association for Behavior Analysis (NYSABA) would like to express our deepest sympathy to the family of Avonte Oquendo, a child with autism who died after wandering from his school.

Recently, the Interactive Autism Network reported that children with Autism were 8 times more likely to engage in wandering than their siblings without Autism, documenting the need for the development of additional evidence-based interventions. NYSABA is fully committed to helping both parents and professionals to develop better strategies to address this commonly-displayed, challenging behavior.

Further information on wandering and tips for safety and reducing this behavior can be found on the web pages of the <u>Association for Science in Autism Treatment</u> and the <u>Interactive Autism Network at the Kennedy Krieger Institute</u>. Questions related to NYSABA's efforts to build better capacity within NY State for supporting persons with Autism can be sent to <u>info@nysaba.org</u>.

NYSABA's Education Committee is putting together an article with information, actionable tips, and resources for the next edition of the NYSABA News. If you would like to help, please contact <u>David McAdam</u> or <u>Heather Walker</u>.