



the ANALYST

Featured Article:

**A Case Study
 Developing a Helping Repertoire in Three Learners with Autism
 By: Tara Weir**

Introduction

The purpose of this study was to replicate similar results to those found in (Buffington-Townsend, Reeve, Reeve, & Poulson, 2007), in three individuals diagnosed with autism spectrum disorder. A multiple baseline across participants was used to determine if these three individuals could increase their level of spontaneous helping behaviour when presented with a variety of discriminative stimuli. The individuals in this study were able to acquire and maintain responses to a variety of situations and stimuli in order to display appropriate helping behaviour. Throughout the treatment phase, the participants were provided verbal or gestural prompts as appropriate, on a trial by trial basis.

Children with autism often display a great deal of difficulty in social interactions and communication skills (Neisworth & Wolfe, 2005). For this reason it is important as practitioners to introduce programming that is socially significant and relevant for them. By increasing correct helping responses to occur under varied verbal and non-verbal stimuli, and across a variety of locations, with a variety of people, we are able to create a generalized helping repertoire that is similar to that of their typically developing peers. The ability to pick up on non-verbal or environmental cues would also be an important part in teaching empathy or other pro-social behaviours. A study that has been successful at teaching individuals with autism to respond to others' cues when they indicate that assistance is needed was done by Harris, Handleman, & Alessandri, 1990.

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From the President's Desk

Greetings from the President's Desk!

It has been a busy summer for ONTABA and it continues to be an exciting time as we move forward and attempt to foster a culture of excellence, integrity and expertise for the advancement and promotion of behaviour analysis in Ontario.

It is the time of year again when our conference is almost upon us! We are fortunate to have an excellent program this year that will span three days from November 10-12 at the Metro Toronto Convention Centre. We are pleased to welcome our invited speakers; Dr. Gregory Hanley, Dr. Timothy Vollmer and Dr. Nicole Luke. We also have had an increased response to our call for papers and it has helped us fill the three days with behaviour analytic content that will showcase some of the great work being done throughout the province. We will once again be offering a selection of CEU's to members free of charge however this year there will be a charge of \$10.00 per credit for non-members. In the future, we will need to begin charging at a package rate for everyone wanting to collect credits to help cover the administrative costs but that will not take effect until 2012. For more information on the conference, please visit our website at www.ontaba.org.

We are also very pleased to have some new features and an update of our website ready. You will have received an email with a username and password allowing you access to a members only section of the site. We have been working hard to enhance our web capabilities and make it easier for members to register for the conference, find information related to the field and also access job postings and past editions of the newsletter.

The Professional Regulation Committee has also been hard at work over the summer and is currently working with The Pathway Group in the exploration of title protection in Ontario for behaviour analysis. There is more information available in

the member's section of the website, including a letter and a question and answer page from the committee. We are also hoping to have representatives from The Pathway Group present at the conference to inform membership of the next steps required in this pursuit. Please make this a priority in your conference planning as there is information relevant for all members and also an explanation of what the next steps in the process will entail.

Finally, I am pleased to say we have had a good response to our nominations for upcoming board positions. You will be receiving information regarding elections very soon and I hope that you will take the time to get to know a little about the potential board members and also the time to vote for those you wish to see on the upcoming board of directors.

As this will be my last message, I would like to take the opportunity to thank the board for all their hard work and dedication over the past two years. It has been an exciting time for our field and it has meant a lot of work for the members of our board. I look forward to what the future holds!

I look forward to seeing you all at the conference!

Regards,

Darryl Nurse



ONTABA Updates

ONTABA CEU Committee

We are excited to announce that ONTABA will be offering CEUs at the Annual Conference this year! There will be a fee of \$10 for each CEU for non-members. Exact change or cheque would be greatly appreciated.

Conference Committee

It's almost that time again! The ONTABA Annual Conference 2011 is just around the corner. The conference will be held at the Metro Toronto Convention Centre (Room 205 & 206AB) from November 10-12th. This year ONTABA is pleased to announce three fantastic keynote speakers.

Dr. Greg Hanley will present a talk titled *Ten Common Mistakes Made by Applied Behavior Analysts When Addressing Problem Behavior and Ways to Avoid Them*. He will also be conducting our Saturday morning workshop titled *Understanding and Addressing Sleep Problems of Children and Young Adults with ASD*.

Dr. Timothy Vollmer will present two talks. The first talk is titled *The matching law: implications for differential reinforcement*. The second presentation is titled *Some suggestions for parent training*.

Dr. Nicole Luke will also be presenting two talks. The first is titled *The CABAS Model Schools-How teaching as applied behavior analysis can inform school programs*. The second presentation is titled *Staff Training-Thinking of our teachers as strategic scientists*.

ONTABA is also pleased to inform the members that we have received many wonderful calls for papers, both presentations and posters!

Conference registration is open! Early bird pricing will be in effect from October 3rd to October 15th, 2011, followed by regular registration fees. The cost for registration and conference brochure is posted on ONTABA's home page. Please be aware that payment must be received prior to entering the conference.

Hotel information can also be found on our home page under the hotel link.

If you have any conference inquiries feel free to contact the conference committee at conference@ontaba.org. We look forward to seeing you in November!

The Conference Committee

Membership Committee

This has been another successful year for ONTABA membership. As of October, 2011, the total number of members registered totals 363, with 187 renewing members, 43 returning members, and 187 new members! There are many benefits to joining ONTABA, including discounted rates at our annual conference, being held at the Metro Toronto Convention Centre from November 10th to 12th.

In addition, members receive our quarterly newsletter with information on job posting and training opportunities. We welcome those interested in the field of Applied Behavior Analysis to become a member and help membership numbers continue to grow.

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The way positive reinforcement is carried out is more important than the amount.
- B.F. Skinner



I cannot emphasize enough the importance of a good teacher.
- Temple Grandin

ONTABA Updates Continued

Recruitment Committee

The ONTABA Board of Directors is pleased to provide the membership with an update on professional liability insurance. Members of Applied Behavior Analysis International, of which ONTABA is an affiliate chapter, are offering a competitively priced rate based on a per-person basis. Members can receive a quote in 5 minutes by filling out their information online through their membership portal. As always, ONTABA is pleased to address the needs of its members by offering information that the membership may find helpful.

Sincerely,

The Recruitment Committee, ONTABA

Website Committee

As many of you have noticed we have launched our member portals. Members can now renew their membership and sign up for the conference all from within the portal. This new functionality will allow us to continue to add to the benefits of membership. A new front-end facelift is also on the horizon with a cleaner more professional edge. If you have issues with your member portals please email website@ontaba.org.

ONTABA's Vision: Fostering a culture of excellence, integrity, and expertise for the advancement and the promotion of the science of behaviour analysis.

ONTABA's Mission: To demonstrate leadership, knowledge, and innovation in education, training, and research for the ethical and effective application of behaviour analysis

www.ONTABA.org

Featured Article Continued...

The study employed a similar design using a multiple baseline across three participants. It found that individuals with autism could learn responses to various helping situations. Pro-social skills benefit children with autism as they are generally viewed by others as more socially competent (Eisenberg, et al., 1996).

Method

Participants and setting:

Three young males with a diagnosis of autism spectrum disorder participated in this study Tom age 6, Adam age 13, Marcus age 15. Tom attended an IBI centre for half of the day, and attended a private school for the latter half. Adam and Marcus both attended an IBI centre for a full day. For all three participants a 1:1 instructional model was used each day. Prior to the study the participants seldom emitted spontaneous helping behaviour. This was determined from direct observations with instructional staff, and each of the participants' skills assessments (Verbal Behaviour Milestones Assessment and Placement Program-VB-MAPP). All three participants showed a deficit in this area, but had prerequisite skills required to emit helping behaviour. Each of the participants could imitate the basic echoic and motor skills required to help, and with the exception of Marcus, could echo almost any word or phrase. With Marcus, an individual with a limited echoic repertoire, a modified two component sign was used (the ASL sign for 'help' followed by the index finger pointed toward the individual needing help- As in "Help you?") This was used as according to his assessment, Marcus had a strong imitative and visual perceptual and matching to sample repertoire.

Response Measurement/Interobserver agreement:

A correct response was scored if the participant used some form of verbal request (such as "Can I help you?" or, "Do you need help?"), waited for the appropriate response from the individual needing assistance, and then helped as appropriate. There was a slight variation with Marcus who is non-verbal and used sign prior to assisting. A response was recorded as incorrect if the participant began helping without any form of verbal communication, prior to the assistance being given, or if no assistance was offered. For each trial two instructors took separate data on the correct or incorrect display of helping behaviour, as indicated above. Interobserver agreement data was taken for at least 50% of the trials, with some session days receiving data for 100% of trials. Interobserver agreement was calculated by dividing the total number of agreements by the total number of trials presented and multiplied by 100. This was done for each session day both during baseline and intervention phases.

Procedure:

A multiple baseline across participants was used to show the appropriate increase in independent helping behaviours. Various situations were presented in which help would be required, such as a large mess to be cleaned up, or a staff member carrying a large item or amount of items. For each situation the staff presented a variety of verbal and non verbal stimuli for the participants to respond to. These included phrases such as "Oh, what a mess!", "Wow, this table is such a mess!" and non verbal cues such as rolling their eyes, sighing, and shaking their head. A minimum of 10 trials per each session day were used, and the daily percentage was calculated and graphed accordingly. Interobserver agreement continued to be taken to ensure procedural integrity throughout the intervention phase.

Baseline data was taken for all three participants prior to the intervention to establish the level of appropriate helping behaviour that was displayed. Staff at the IBI centre took trial by trial data for every opportunity presented and recorded a check mark or an "x" indicating whether correct helping behaviour was displayed. The percentage of correct helping behaviour displayed daily was graphed. Each of the participants scored 0%, which along with discussions with staff and evaluations of assessments showed a deficiency in this particular area, and a need for further programming.

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Featured Article Continued...

During the treatment phase, the first participant Tom, received verbal and gestural prompts from a secondary staff member, for each scenario presented. The participant was given 2 seconds to respond (with the same correct responses as described above) before a prompt was given. Staff used the least intrusive most effective prompts necessary in order to achieve the desired response; systematically fading their prompts on successive trials. Baseline data was continuously collected with the remaining participants Adam, and Marcus. Following a multiple baseline design, the treatment phase was not implemented with the second participant (Adam) until such a time that Tom had shown a steady increase in his skill acquisition. Furthermore, the treatment phase for Marcus was introduced after Adam had shown steady increase in his skill acquisition.

The treatment phase was conducted in the same manner as baseline, taking place in many different rooms in the centre, throughout different times during the day, such as group learning opportunities, snack/lunch times, and gross motor play. A variety of staff were used, and each was trained on the specifics of the treatment program prior to its implementation. The purpose of this was to ensure generalization across locations and people. Mastery criterion for all participants was 90% correct helping responses per session day across three consecutive session days.

Results

Reliability:

Interobserver agreement continued to be recorded and calculated in the same manner throughout the intervention phase, with all three participants receiving 100% for each session.

Performance:

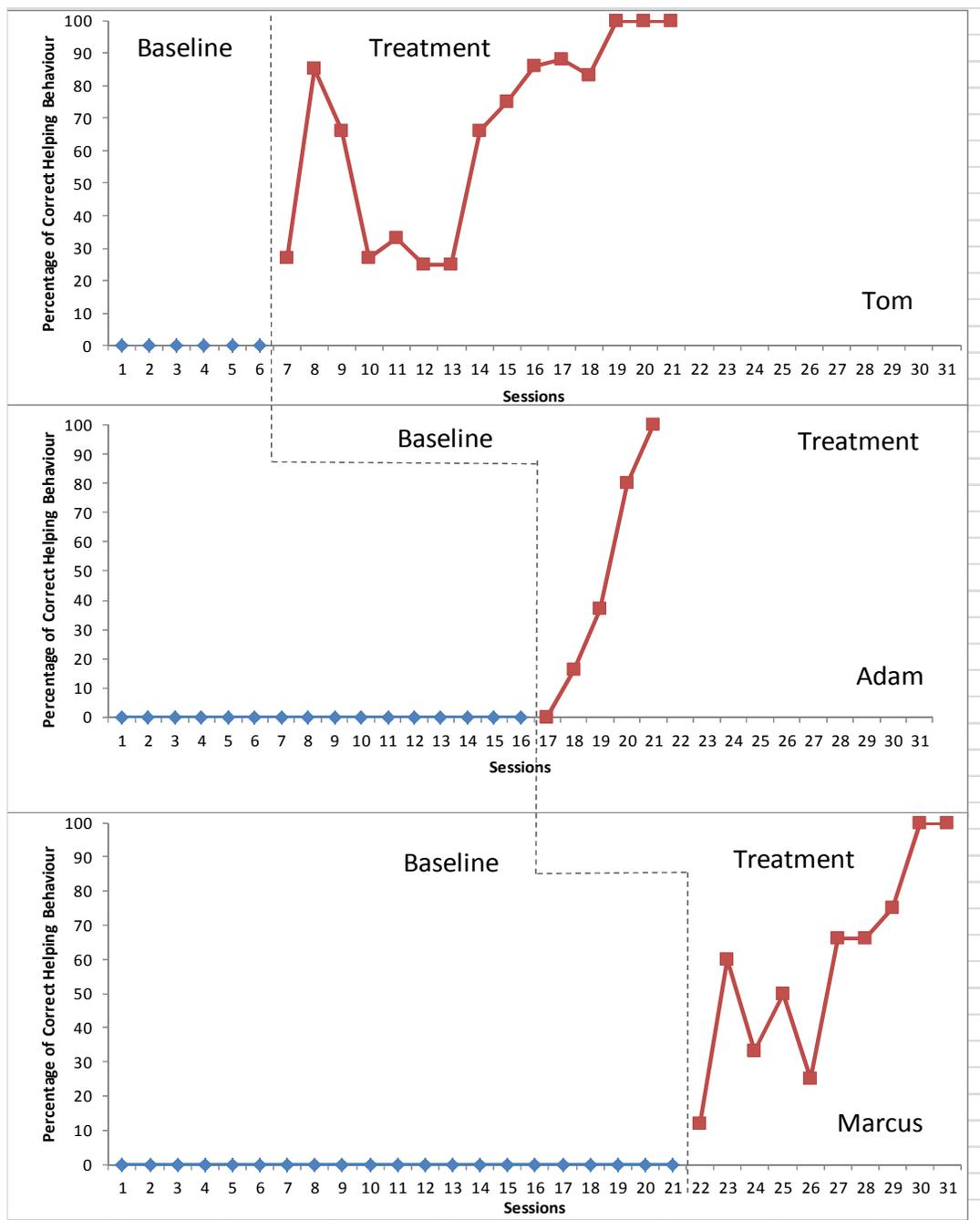
The attached graphs show the percentage of correct helping behaviour displayed per session day. During the baseline phase, none of the three participants displayed any correct helping behaviour as described above. For each of the participants as the treatment phase was introduced, each began to show an increase in correct helping behaviour as a response to specific verbal and non-verbal stimuli. For Tom, correct helping behaviour increased from 0% to 100% across 12 teaching sessions. Adam increased from 0% to 100% across 5 teaching sessions, and Marcus increased from 0% to 100% across 9 teaching sessions.

The graphs show a steady increase in the acquisition of pro social helping behaviour. Although the graph does indicate some fluctuation in daily percentage, it has shown a consistent increase for all participants. The use of novel staff and environmental stimuli throughout the treatment phase has increased the spontaneous helping behaviour of all three participants. On one occasion Adam had asked a novel staff member for assistance when he saw her loading things into her car. Neither the staff member, nor the use of loading items into a car had been used during the treatment phase. This shows the extent to which generalization across environments, people and discriminative stimuli had occurred.

Discussion

Preceding this study, none of the participants exhibited any appropriate helping behaviour, as described above. Through the introduction of the treatment program, each of the three participants was able to acquire a generalized helping repertoire in response to various verbal and non verbal discriminative stimuli. Despite the different response topography all three participants were able to acquire the skill of helping others in response to the discriminative stimuli listed above. Marcus was able to learn and retain the skill similar to the other participants. He initially displayed some difficulty putting the two component sign together; this could have been facilitated by teaching the sign as a prerequisite skill prior to implementing the treatment program. However, when the initial treatment program was designed his assessment scores indicated a strong imitative repertoire currently existed. This could indicate that Marcus was able to imitate in isolation, but was unable to do so in the form of a request. Nonetheless, he was still able to spontaneously respond to varied helping situations when presented.

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Future study could potentially include the use of further testing and teaching of generalization. The more circumstances in which the individual with autism is able to respond appropriately, the greater their helping repertoire will be. This study has shown that individuals have the capacity to learn this skill, and with an appropriate intervention it will develop.

It is important to teach children with autism a variety of social skills as it is relevant to future skill acquisition and inclusion into less restrictive environments. A child who is able to engage in appropriate pro-social situations is more likely to have both peer and adult interactions, thus resulting in future opportunities for that child to further develop skills.

References

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St. Lawrence College Behavioural Science Technology Celebrates its.... *40th Anniversary*

In 1971, St. Lawrence College introduced a program called Behavioural Science Technology (BST). BST was designed to capitalize on the wave of empirically based behaviour analysis which was being published in the late sixties. Journals such as the Journal of Applied Behavior Analysis (JABA) and Journal of Experimental Analysis of Behaviour (JEAB) were informing best practices in what was then called Behaviour Modification.

At approximately the same point in history (1972), the Sunland Miami scandal (Florida) exposed systemic abuses in institutional care. The need for data based, empirically supported, least intrusive procedures reverberated throughout the entire helping profession. The BST program, originally conceived as a two year program was quickly changed to a three year advanced diploma to meet the growing needs of the community. The program has grown, evolved and improved since its inception forty years ago.

St. Lawrence College alumni services note that with last year's graduating class, over 1600 BST students have successfully passed through the program and into the community. Both student and graduate satisfaction ratings are at an all time high – 85% for students and 95% for graduates; and graduate employment rates demonstrate that students from this program are in demand with 90% finding employment post graduation. Graduates find careers throughout Eastern Ontario and beyond. Many continue their education by pursuing post diploma programs such as the Autism and Behavioural Science program at St. Lawrence or Bachelor degrees at universities across the province. An articulation agreement with Brock University specifically allows BST graduates to fast track toward a degree.

The full time faculty is: Kim Trudeau-Craig (coordinator), Dave Clark (professor), Janet Ritchie (professor) and Katrina McDonald (professor). All four are one-time graduates of the BST program, and all are passionate about training tomorrow's human services professionals. The faculty comes from previous vocations in Education, Forensics, Behaviour Therapy, Acquired Brain Injury, Mental Health and Developmental Disabilities. Today's faculty are proud to carry on a teaching tradition which builds on the expertise and passion for applied behaviour analysis that began with the original program faculty: David McKay and Bill Kirby.

The faculty invites you to say hello at this year's Ontaba conference in Toronto, November 10-12, 2011 and also at the St. Lawrence College Behavioural Solutions conference in Kingston - April, 2012. We are very proud to have the distinction of being Canada's senior behavioural program. Please join us in celebrating 40 years in the business of behaviour.

BST faculty

Celebrating the program's *40th Anniversary*



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