

Info-QcABA

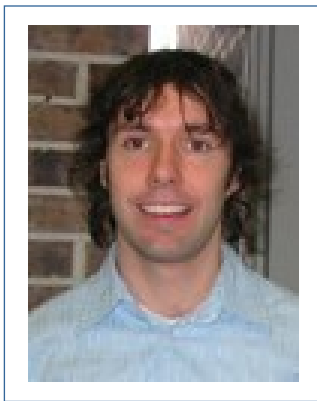
The Québec Association for Behaviour Analysis'
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newsletter@qcaba.org

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Volume 2

New Developments

By Marc Lanovaz, Ph.D., BCBA-D



Marc Lanovaz

Since the publication of the last issue of Info-QcABA in November 2011, there have been several changes in the Québec Association for Behaviour Analysis (QcABA). We became an affiliated chapter of the Association for Behavior Analysis International. This affiliation considerably increases our visibility and credibility to promote the science of behaviour analysis in Québec. Furthermore, we received the authorisation of the Behavior Analyst Certification Board (BACB®) to post our translation of their guidelines for a responsible conduct on our Website. These guidelines will allow us to disseminate responsible practices in applied behaviour analysis to French-speaking professionals and families.

Our Second Annual Conference was a success with approximately 95 registrants. We would like to thank John T. Rapp from St. Cloud State University and the other presenters who have generously offered their time to present at our conference. During the past year, many members of QcABA have participated in activities to promote the association at events for parents and staff of children with autism spectrum disorders. Two members of the Board of Directors also participated in a leadership training offered to affiliated chapters by ABAI in Seattle.

The committees have continued their hard work to improve the services offered by QcABA. The Third Annual Conference, which is planned for early March 2013, is being prepared by the events committee. The Website committee is preparing an update for the near future. Finally, the newsletter committee would like to welcome Mélina Rivard, our new Associate Editor for the French version of the Info-QcABA. We are planning several changes for the newsletter in 2013. If you would like to get involved with one of the committees, you can contact us at info@qcaba.org.

We hope you enjoy this issue

INSIDE THIS ISSUE

- 1 New Developments
- 2 Functional Assessment
- 2 Sustaining Members
- 3 Interview with Sylvie Donais
- 5 Clarifications on IBI
- 7 Modeling vs. Shaping
- 8 Complete References
- 9 Newsletter Team



Myra-Jade Lui

Functional Assessment Versus Functional Analysis

By Myra-Jade Lui, BCBA

The terms “functional assessment” and “functional analysis” are sometimes misused by those working in the field and misunderstood by others. Although they sound similar and both describe ways in which behaviour is assessed, how they differ from each other and their relationship to one another should be clarified for service providers and laypersons alike.

First, it should be understood that a functional analysis can be a part of a functional assessment (sometimes referred to as functional behaviour assessment). Functional assessment encompasses several methods of behavioural assessment of which all or any combination can be used depending on the situation. There are 3 different types of methods that are used as part of a functional assessment: (a) the indirect assessments, (b) the descriptive assessments, and (c) the functional analysis (Cooper, Heron, & Heward, 2007).

Indirect assessments include the use of methods such as structured interviews, checklists, rating scales, or questionnaires with those who know the individual or have observed the target behaviour. A notable example is the Questions About Behavioral Functions (QABF; Matson & Vollmer, 1995), which includes 25 items classified in five categories (i.e., attention, escape, non-social, tangible, and physical). The data may not be as reliable and valid as direct observation, but can be a useful tool when developing a preliminary hypothesis about the behaviour as they are quick and convenient to collect.

Descriptive assessments include methods where behaviour is directly observed and recorded in the natural environment, and these records can be used to identify antecedent and consequential events correlated with the occurrence of target behaviour(s). Such methods include ABC (Antecedent-Behaviour-Consequence) continuous recording, ABC narrative recording, and scatterplots. Although most of these methods have been repeatedly shown to be inadequate to identify causal relations between behavior and consequences (e.g., Hall, 2005; Kahng et al., 1998; Tarbox et al., 2009; Thomson & Iwata, 2007), descriptive analyses may be particularly useful to develop hypotheses about the function of behaviour and to identify antecedent conditions associated with the behaviour.

Functional analysis (sometimes referred to as experimental analysis) involves procedures whereby antecedent and consequences are arranged and controlled for during different conditions to test their effect on engagement of the target behaviour (Iwata & Dozier, 2008). These “analog” conditions are typically divided into four categories: contingent attention, contingent escape, alone (or no-interaction), and play (or control) conditions. Each condition is

Please see *Functional Assessment* on page 3

Sustaining Members 2012

QcABA thanks you for your support!

Sylvie Bernard

Sylvie Donais

Normand Giroux

Marc Lanovaz

Myra-Jade Lui

Nathalie Poirier

Gisela Regli

Functional Assessment from page 2

sensitive to the effects of a specific consequence. Differing frequencies of the behaviour(s) across the conditions allow for a hypothesis regarding the function to be either supported or discarded. The functional analysis is generally perceived as the “gold standard” to identify the function of problem behavior. However, the use of functional analysis is often limited by the dangerous nature of some behaviour (which should not be evoked), the expertise, time, and resources required to complete the assessment, and the absence of the maintaining variables in the contrived conditions.

Thus, the most significant way a functional analysis differs from the other functional assessment methods is that it allows for a clear demonstration of the controlling variables of behaviour through their systematic manipulation. The other methods simply offer a means to examine correlations or hypotheses about the antecedents and consequences controlling the target behavior. Functional assessment methods are crucial to our practice as it differentiates between function versus topography of behaviour, which allows us to design effective interventions that adhere to best practice, address the individual needs of our clients, and allows for the ‘analysis’ in our work that is so fundamental.

Please see page 8 for complete references

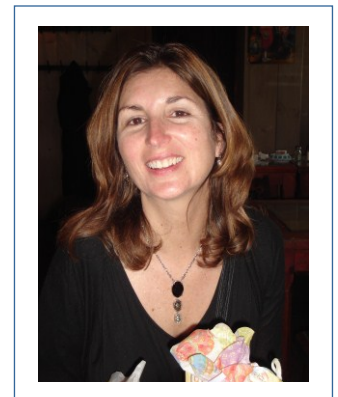
Interview with Dr. Sylvie Donais, psychologist

By Kelly Kerr

If you are an Early Intensive Behavioural Intervention (EIBI) professional in Montreal, the chances are that you already know her, or at least know of her. Dr. Donais is the current President of QcABA and has been connected with a wide range of families, services, and organizations in Montreal for more than two decades. You could say that she is one of the reasons that EIBI exists as it does today in Quebec, as she was one of the key players in bringing the UCLA (Lovaas) model of EIBI to the province over 20 years ago.

When Dr. Donais began her PhD at the *Université du Québec à Montréal* (UQAM) in 1989, shortly after the publication of Lovaas’ pivotal 1987 study, EIBI did not exist in Quebec. She started studying the behavioural approach during an internship with Paul Maurice at *Le centre de consultation psychologique et éducationnelle (CCPE)*. As part of her doctoral work with Jacques Forget, she became interested in Lovaas’ 1987 study. In 1991, with the support of these two professors, she spent 3 months at UCLA learning about EIBI directly with Dr. Lovaas. She returned to Quebec and began offering EIBI out of CCPE while continuing her PhD.

After completing her PhD in 1997, Dr. Donais continued to offer clinic, home, and school-based EIBI in Montreal. In 1996, she worked with Scott Wright on a pilot project with readaptation centres in Montreal. This early work in EIBI laid the foundation for the future public EIBI programs, which started in 2003. Many of the parents who Dr. Donais worked with and trained were the ones who eventually solicited the government for the EIBI funding that we now have in Quebec.



Sylvie Donais

Please see *Sylvie Donais* on page 4

Sylvie Donais from page 3

Presently, Dr. Donais is an active member of the EIBI field in Montreal. In her private practice with the *Clinique d'approche comportementale en autisme* (Clinique ABA), her work is primarily in EIBI, supervising home EIBI programs, and training parents and therapists. She also provides diagnostic and standardized assessments for children, and consults on social skills programs for older children and young adults. Dr. Donais has previously worked as an instructor at UQAM, currently supervises practicum students in the DESS-TED program there, and works for the University of New Brunswick's (UNB) Autism Training Programs. In 2011, Dr. Donais was a part of the Nomination Committee for the Ministry of Health's National ASD Surveillance.

What do you see as the main challenges for EIBI professionals in Quebec? Where should EIBI professionals be focusing their energy?

"I think our main challenge as EIBI professionals in Quebec is to make sure that we are truly providing EIBI treatment as intended. That is, that we are running evidence-based EIBI programs with 40 hours per week, complete with staff and parent training, as well as ongoing supervision. In order to do that, we need more funding than is currently available. We need to use our data to convince both parents and the government that we can create real change.

Another main challenge I see now is making sure that parents are informed and on board with our programs. When we started doing EIBI 20 years ago, parents understood that they were getting involved in an intensive program. Now many seem to think that 10 hours of intervention per week is okay. We need to better inform and train parents so that they understand that it takes many factors to make an effective EIBI program and to produce socially significant changes in their children.

Another challenge that I continue to see is in the transition from EIBI into the school system. Once a child is six years old, public EIBI services end and that's it. All of a sudden we expect these children to be able to learn in a totally different way. It is possible for ABA to be used in schools too! In New Brunswick, they have some very good ABA happening in schools. In Ontario, they have eliminated the cut-off at 6 years old, so that children can continue to receive ABA services in school. I think we as EIBI professionals need to work with teachers and the school boards in order to create better continuity between EIBI services and public school services."

As president of the Québec Association for Behaviour Analysis (QcABA), what do you hope to achieve with the organization? What are your priorities?

"The main goal of QcABA is to promote ABA in Quebec. While there is a lot of great EIBI work being done in Montreal, outside of Montreal practices are more eclectic and not as rigorous. I hope to find a way to gain more QcABA members from outside of Montreal in order to make ABA and EIBI better understood throughout Quebec. Ideally, I'd like the QcABA to be able to bring professionals to Montreal in order to train them and give them access to the EIBI community that we have here.

Another long-term goal I have is to find a way to create Bachelor's and Master's programs in ABA, in Quebec universities. This is especially important in the French universities, since there are no Bachelor's, nor Master's ABA programs offered anywhere in North America in French."

It seems like there is a lot of difficult work ahead.

"Yes, sometimes it is discouraging, but I'll never give up!"

Clarifications on Intensive Behavioural Intervention (IBI)

By Dr. Sylvie Bernard and Dr. Sylvie Donais, psychologists

According to research, intensive behavioural intervention (IBI) programs, which are based on the principles of applied behaviour analysis (ABA), are currently the most effective early intervention programs for children with autism spectrum disorders (ASD; Eldevik, Hastings, Huges, Jahr, Eikeseith, & Cross, 2009; Peters-Scheffer, Didden, Korzilius, & Sturmey, 2011; Viruès-Ortega, 2010). These programs make use of a variety of teaching procedures including discrete trial instruction and incidental teaching. The outcomes of this intervention are correlated with several variables such as the number of hours (intensity) of the intervention received (Makrygianni & Reed, 2010).

Since the first publication by Lovaas (1987), IBI has met with much controversy and critique from around the world by professionals, parents, and individuals with ASD themselves (Dawson, 2004; Mottron, 2011). The idea of recovery of this condition is notably at the heart of this debate. This article will attempt to clarify some of the misinformation that currently exists (Mottron, 2012).

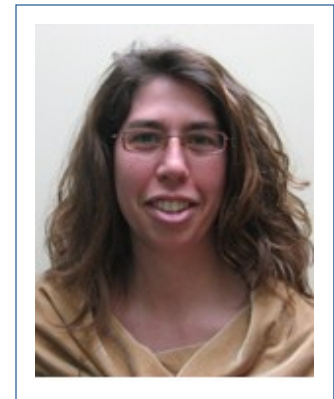
The Québec Association for Behaviour Analysis (QcABA) aims to inform people on the use of ABA to treat a wide variety of problems experienced by children, adults, and this includes those with ASD. QcABA is therefore an important resource for those with questions concerning effective programming for children with autism, such as IBI.

Critics of IBI raise questions about its underlying philosophical values, methodological weaknesses in the supporting research, and certain clinical and administrative aspects of its use. Philosophically, some criticize that the overriding goal of these programs is to teach socially significant behaviours and reduce those that interfere with normal functioning and thus the typical symptoms associated with ASD. It is feared that in this process the unique strengths and advantages of these individuals will be forgotten (Mottron, 2012).

In response to this concern, it is important to explain that IBI programs strengthen behaviours that the child already possesses within the average or above average range. Teaching new skills requires the mobilization of the child's individual strengths such as visual information processing, memory, and motor skills. One role of the clinician is to distinguish the strengths of the child from their knowledge, with this knowledge being sometimes extraordinary. In fact, the philosophy of behaviour analysts is that each child with autism should have the chance to learn, and therefore to use their strengths to teach skills which will lead to independence within our society.

Concerning the criticisms about the scientific and methodological flaws in the supporting research, all of the published research concludes with recommendations that more research is required. Such recommendations do not invalidate the research, but are simply considerations that may strengthen both the underlying science behind, and the empirical knowledge about, these programs. The outcomes from several international replication studies and several meta-analyses' regarding the efficacy of ABA-based, early intervention programs are conclusive: they are to date the most rigorously documented, empirically-validated intervention programs for children with ASD.

It is surprising therefore that many organizations prefer to treat this population with an eclectic approach, often based on the TEACCH model (Mesibov, Shea, & Schopler, 2005) instead of using ABA-based programs. However, eclectic treatments have proven less effective (Eikeseth, Smith, Jahr, & Eldevik, 2007; Makrygianni & Reed, 2010).



Sylvie Bernard

Clarifications on IBI from page 5

The danger in criticizing the methodological flaws of the research is that parents then confuse IBI intervention with interventions that are either pseudo-scientific or anti-scientific (such as facilitated communication or auditory therapy), for which there is no scientific evidence whatsoever.

In regards to the clinical and administrative concerns, critics of IBI state that these programs help only a small percentage of children with ASD who receive them (Motttron, 2011). However, articles that cite the effectiveness of interventions before IBI (in the 1950's and 60's) offer significant gains made in 1.5% of the participants (Rutter, 1970), compared to the gains published currently which, depending on the study, is anywhere between 20-47% (Lovaas, 1987; Smith, 1999). It would seem therefore that IBI programs are superior by 10 to 20-fold compared to these other programs for this population, for which gains were measured using standardized tests. However, there were also children who made gains that may not have been statistically significant, but who, for example, may have learned 10 new words, learned to wash themselves, wait in a line at school, for whom these gains were still clinically significant for the children and their families.

Moreover, it is important to ensure that children and their subsequent services are not penalized by using the argument that IBI is not effective for all. The conscientious professional uses a scientific approach, uses the data collected to direct their clinical decision making and therefore, towards strategies that have been shown to be effective. If quantitative data show that the current strategies are ineffective, that child will be directed towards ones that are. Other critics speak of the secondary effects of this treatment without specifying any in particular. To date there have been no long-term, secondary effects reported in the studies that follow these children into adolescence. On the contrary, it has been reported that all of the participants maintained the gains that they made throughout their childhood and beyond (McEachin, Smith, & Lovaas, 1993). When a person of influence publically offers a criticism of IBI, it seems important to allow the other side to respond accordingly. This ensures that criticisms are fair and well-documented, in accordance with the research, and in this case to avoid reducing accessibility to services for children in need.

What are the possible reasons why then, given all of the supporting research, IBI is not unequivocally recommended for this population? It seems that the comprehensiveness with which these programs must be run could be at the origins of this issue. For this treatment to be most effective, extensive resources and personnel are required. These personnel must be qualified. The recommendations are that parental involvement is consistent (at least 10 hours a week; Larsson, 2003), the staff, family, and the program itself is supervised sufficiently (6-10 hours a week; Smith & Wynn, 2003), data are collected daily so that progress can be tracked, and therefore overall, a huge amount of discipline and effort is required to implement these programs properly (Buch, 2003).

Since the establishment of IBI in Quebec's public services as a pilot project in 1996, IBI has been at the root of many changes in the management of children with ASD. It provoked the mobilization of upper-class families against the government in 2004, which led to higher budgets granted for the treatment of children ages 0 to 5 under the document *Un geste porteur d'avenir* (MSSS, 2003), the closing of early stimulation centers in hospitals in favour of the CRDI-TED's which centralized interventions, and the implementation of a regional training program. Ultimately, IBI disrupted the structure of services that had been in place as well the understanding of autism at the time (that characteristics such as visual learning skills or language and social weaknesses were all permanent conditions).

In order to continue to improve IBI services in Quebec, it is recommended that the service delivery model be adapted to be more flexible to the specific needs of the children and families who use them. It is equally important to increase the number of hours offered to the children, to train those who are responsible for hiring staff, the staff themselves, and the families during their service period, and to create a continuity of services from IBI into the school environment.

Terminology: The Differences Between Shaping and Modeling

By *Mélanie Laberge, M.Sc.*, and *Jacques Forget, D.Ps.*
Université du Québec à Montréal (UQAM)



Mélanie Laberge

One of the challenges with the application of behaviour analysis (ABA) in research and clinical practice is the sometimes confusing nature of the terminology for the layman. The goal of this article is to clarify the terms *shaping* and modeling in the context of ABA. The definitions presented in this article are derived from the *Dictionnaire des sciences appliquées du comportement* (Forget, sous presse) as well as the book *Psychologie de l'apprentissage, termes et concepts* (Malcuit, Pomerleau, & Maurice, 1995).

Shaping and Modeling: Definitions and Clinical Examples

Shaping

The goal of shaping is to teach an individual a behaviour that is not in their current repertoire. It consists of using differential reinforcement to reinforce successive approximations of the target response until the target response is achieved and simultaneously placing all lesser responses on extinction. A shaping procedure consists of following a sequence of steps in order to shape better approximations of a target response. The first step is to choose the appropriate target behaviour. Once this is done, one must then determine a reinforcer for the child which he will be able to earn contingent upon engaging in the target response. Next, the instructor should determine the first approximation of the target response to be shaped, which should be a response that is already in the child's repertoire. This first target approximation of the response should then be reinforced until it is considered mastered after which another successive approximation of the target response will be chosen as the next target and the previous target will be placed on extinction. Then, once all of the target approximations have been successively shaped, only the final target response will meet reinforcement.

Clinical Example: An instructor would like to improve the client's pronunciation of the word "zebra". The first step is to determine what prerequisite skills are needed and whether the child has these skills already in his repertoire. The instructor determines that the child is able to say "eb" when he sees a picture of a zebra or a stuffed toy zebra. Therefore the first approximation to be reinforced would be every instance of the child saying "eb" when presented with the picture or the toy. Once the child is able to consistently say "eb" when in the presence of the item or the picture, that target will be considered mastered. Next, the new target "zeb" will be introduced. The instructor will then reinforce any approximation the child makes towards this target response such as "cheb", "seb" or "ssseb" until the word "zeb" is easily recognisable. During this second step, if ever the child says "eb" this response will no longer be reinforced since it will already be considered mastered and there will be a new target in place ("zeb"). Once the child is able to say the word "zeb" clearly and consistently, the instructor would then be able to add the "ra" at the end of the word as the final target response. Once again, when the word "zeb" is considered mastered, it is important to gradually thin out the schedule of reinforcement that the child receives for engaging in this behavior. It is also important to remember not to thin out the schedule too quickly and to make sure that the child's response is mastered.

Modeling:

Modeling is a type of prompt which increases the likelihood of a person to engage in a behavior that they do not already have in their repertoire. This technique consists of having the client watch a person, either live or on video, succeed in performing the desired target behaviour. The antecedent stimuli as well as the reinforcer that this model receives for engaging in the target behaviour both have an important impact on the observer. In order for the modeling procedure to be successive, the observer must be aware of 3 important elements: the environment, the behaviour and the consequences.

Please see *Terminology* on page 8

Terminology from page 7

Clinical example: A child can learn through modeling to follow the rules of the game of dodgeball in the school yard while watching a friend play. During this observation, the child can see his friend throwing and catching the ball. The encouragement that this child receives from his peers for participating is perceived as positive reinforcement. Therefore, the child that is observing is more likely to engage in the behavior that he has just observed, which may bring him in contact with the same consequence.

Clarifying the Differences

The goal of both shaping and modeling is to teach new behaviors that are not already in the individual's repertoire. It is therefore important to highlight the differences between these two procedures since they both involve different implementation strategies. The modeling procedure involves the presence of a model to prompt the desired behavior in the presence of antecedent stimuli as well as contingencies of reinforcement that are present in the environment. On the other hand, the shaping procedure does not necessarily involve the observation of a model's behaviour as a teaching tool for new behaviours. Instead, it focuses on teaching successive approximations of the target behaviour in order to teach new behaviours.

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Newsletter Team

Editor: Marc Lanovaz

Associate Editor: Méлина Rivard

Contributors: Sylvie Bernard, Sylvie Donais, Kelly Kerr, Mélanie Laberge, and Myra-Jade Lui

Translators: Myra-Jade Lui, Méлина Rivard, and Kirsty Robertson

