Busy Analytical Bee

NEWSLETTER October

Welcome to the October edition. In this edition we are exploring interventions that help reduce escape-maintained behaviours. We are also celebrating the career of Dr. Cathleen Piazza in the 'People who inspire us section'. There is also an NET around carving pumpkins, product wish list for self-help skills, events and much more! Have a great month!

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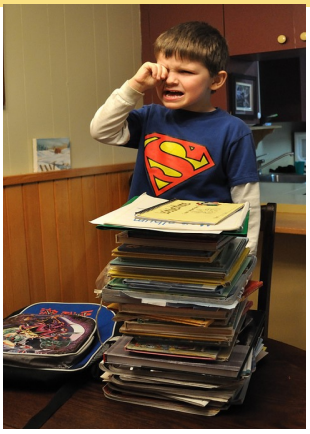
ESCAPE-MAINTAINED BEHAVIOURS

In the field of Applied Behaviour Analysis (ABA), there are four main functions of behaviours. These functions explain the reason for behaviours. People can behave in many different ways, in different situations, with different people, but the behaviours will fall into one of these four functions. These functions are tangible, attention, sensory and escape. Every behaviour leads to or results in a consequence that satisfies these functions. This article will focus on the escape/avoidance function. Behaviours occur under this function to remove something from the environment (something tangible or attention). When a situation becomes aversive because it is very demanding, or is unpleasant, then we typically engage in behaviours that help us escape or avoid those situations. An example of this could be, if there is a live spider in a room (and you are afraid of spiders), we may leave the room, or hit it with newspaper to escape being in the presence of the live spider.

This also applies to many of our learners, who will try to escape situations they find unpleasant. This is particularly difficult when we are teaching important skills, for instance, social skills, academics or self-help and independence skills. Some learners will engage in challenging behaviours that are very difficult to manage when they are presented with these tasks. These behaviours could include anything from not responding to instructions, looking or turning away, laughing, scribbling on their work to property destruction, self-injurious behaviours or aggression. There are many possible procedures that can help our learners and reduce these escape-maintained behaviours.



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Firstly, it is important to conduct a Functional Assessment. This will help us uncover why the behaviour is happening. It is important to ensure that the intervention matches the function, to ensure that it will be effective. A Functional assessment can include interviews, conducting an observation or conducting a Functional Analysis (FA) as devised by Iwata et al (1994). If the behaviour occurs at higher frequency or intensity when demands are place, then the intervention should reflect this.

Within the field of ABA, it is important to focus on increasing functional skills and using reinforcement procedures as opposed to punishment procedures (BACB 2014; 4.08a). Researchers have compared positive and negative reinforcement in regards to escape maintained behaviours (DeLeon et al, 2001; Piazza et al, 1997). In the first study, DeLeon et al (2001) compared giving a crisp for compliance to giving a choice (crisps or break) for compliance. They found that the participant chose the crisps (positive reinforcement) over the break (negative reinforcement) when given the choice, following compliance. Piazza et al (1997) conducted a similar study with similar results, although they found that when task demands were increased escape-maintained behaviours increased, and they introduced an extinction component.

Another way to focus on reinforcement is using functional communication training (FCT), which would involve the learner requesting a break in an appropriate way (using a break card, using a sign or vocal). Lalli et al (1995) observed a relationship between verbal responses (to request a break) and challenging behaviours. As the FCT increased (average increase of 58% across 3 participants), the challenging behaviour reduced. In addition to the FCT, Lalli et al (1995) also used an extinction component.

Extinction is often a component of interventions that relate to escape-maintained behaviours. (DeLeon et al, 2001; Piazza et al, 1997; Piazza et al, 1996; Lalli et al, 1995). Extinction is a procedure when reinforcement is withheld, so in this instance escape from demands is prevented. This usually involves physically guiding or prompting the learner to complete the task. For some learners this can be difficult, as Piazza et al (1996) discussed. They investigated the use of verbal and gestural prompts instead of physical prompts. In addition to this, they used Differential Reinforcement of Alternative Behaviour (DRA) and demand fading. The DRA involved delivery of tangibles and attention for compliance. The DRA with demand fading and continuous prompting resulted in a higher level of compliance (above 90%) than extinction/physically guiding (33.2%).

It is also important to consider other environmental factors and setting events. O'Reilly et al (2000) conducted an FA under three conditions, that manipulated noise levels and found a child with Williams Syndrome engaged in a higher frequency of escape-maintained behaviours when there was background noise. Also, O'Reilly (1995) found that sleep deprivation had a significant impact on the frequency of escape-maintained behaviours. These are important consideration to make when developing behaviour intervention plans for escape-maintained behaviours. If you need support developing an intervention, speak to a Board Certified Behaviour Analyst (BCBA) or Board Certified Assistant Behaviour Analyst (BCaBA).

BACB,. Professional and Ethical Compliance Code for Behavior Analysts. *Behavior Analyst Certification Board*, 2014. http://bacb.com/wp-content/uploads/2016/03/160321-compliance-code-english.pdf

DeLeon, I. G., Neidert, P. L., Anders, B. M., & Rodriguez-Catter, V. (2001). Choices between positive and negative reinforcement during treatment for escape-maintained behavior. *Journal of Applied Behavior Analysis*, **34**, 521-525.

Iwata, B. A., Dorsey, M. F., Slifer, K. J., Bauman, K. E., & Richman, G. S. (1994). Toward a functional analysis of self-injury. *Journal of Applied Behavior Analysis*, **27**, 197-209.

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Lalli, J. S., Casey, S., & Kates, K. (1995). Reducing escape behavior and increasing task completion with functional communication training, extinction, and response chaining. *Journal of Applied Behavior Analysis*, **28,** 261-268.

O'Reilly, M. F. (1995) Functional Analysis and treatment of escape-maintained aggression correlated with sleep deprivation. *Journal of Applied Behavior Analysis,* **28**, 225-226.

O'Reilly, M. F., Lacey, C., & Lancioni, G. E. (2000) Assessment of the influence of background noise on escape-maintained problem behavior and pain behavior in a child with willaims syndrome. *Journal of Applied Behavior Analysis,* **33**, 511-514.

Piazza, C. C., Moes, D. R., & Fisher, W. W. (1996). Differential Reinforcement of alternative behavior and demand fading in the treatment of escape-maintained destructive behavior. *Journal of Applied Behavior Analysis,* **29**, 569-572.

Piazza, C. C., Fisher, W. W., Hanley, G. P., Remick, M. L., Contrucci, S. A., & Aitken, T. L. (1997) The use of positive and negative reinforcement in the treatment of escape-maintained destructive behavior. *Journal of Applied Behavior Analysis*, **30**, 279-298.

EVENTS

Association of Behavior Analysis International (ABAI) is happening on the 14th-15th November 2017, in Paris, France. This is the Ninth International Conference. For more information and to book your place click here. The cost is $700 (£559.64 approximately).

The UK-SBA is holding a workshop on the 9th and 10th of November, in London. They are hosting Prof. Jesse Dallery from the University of Florida, and he will be speaking about Substance Misuse and Contingency management. For more information and to book this event, please go to the UK SBA events page. The cost for non-UK-SBA Members are £175 for one day and £250 for both days. For Members the cost of one day is £100 and both days is £150. If you would like to become a member of the UK-SBA it costs £25 for one year, and you can become a member by registering through the website.

You can study in the comfort of you home with Florida Institute of Technology (FIT). They have a wide range oof courses (costs vary) to help you develop you understanding of the principles of Behaviour Analysis. Continuing Education (CE) Units available on many courses.

TERMINOLOGY

Matching Law: This explains the allocation of responses and choices under concurrent schedules. Behaviour A may result in reinforcement that is better quality or qunatity, or may be delivered faster, or the behaviour may require less effort to obtain the reinforcer, than an alternative. Rates of behaviours match the reinforcement available under each schedule.

NATURAL ENVIRONMENT TEACHING (NET) IDEA

This Halloween offers the perfect opportunity to carve pumpkins with your clients! This takes a bit of skill, so you might want to practise beforehand. This activity also involves using a sharp knife, so be sure this is an appropriate activity for your client. You can get templates to follow, if you want to do something very intricate, but for the purpose of this activity plan we will stick to the traditional eyes, nose and smile. This activity allows you to work on some mands around the pumpkin and tools e.g., small knifes, bowls, scoop, etc. (mand 4M, 5M, 8M, 9M). You child may need a lot of help to cut, to pull out the insides and open the lid, etc. so may ask for help, or for you do complete these actions (mand 7f, 7M). There are also opportunities to work on expressive (tacts and intraverbals) and receptive language aspects of the pumpkin or actions. You could label or identify the pumpkin or the tools by their names, colours (tact 10d LR* 10b), features, functions or class. For instance, asking your child to label the seeds, or asking them to identify the one that is used to cut (the small knife). You can also involve body parts (tact 7a, LR* 4c), or shapes (tact 10e, LR* 10c) in many ways, for instance "The pumpkin needs eyes, can you show me your eyes?", or "What shape is the pumpkins nose?". Also, you could ask the child to draw or trace a shape, that can be cut out and used as a template to follow when you cut the pumpkin (writing 11c, 11M, 12c, 12d, 12M). It's also possible to discuss the smell (tact 10b) and feel of the pumpkin. There are also opportunities for Intraverbal targets for instance, including fill-ins "you cut with a …." [knife], "What is a pumpkin a type of?" [vegetable], "Where do you keep a pumpkin?" [outside] and "What does a pumpkin have?" [eyes/mouth/nose or skin/flesh/seeds] (Intraverbal 7a-7d, 9b-9d, 9M, 10a-10f, 10M, 11b-11e).

Preceding skills reference to the VB-MAPP Assessment tool:
Sundberg, M. L. (2008) Verbal Behavior Milestones Assessment and Placement Program: The VB-MAPP. Concord, CA: AVB Press.

*LR: Listener Responding

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PEOPLE WHO INSPIRE US

This month we are celebrating the career of Cathleen Piazza. Dr Piazza is renown for her influence on behavioural science, in particular feeding problems. She has also published over 100 research papers. Dr. Piazza studied at Tulane University, New Orleans, LA, and completed a Bachelor's degree in 1982, a Masters Degree in 1984 and her Ph.D., in 1987. Dr. Piazza then had many positions at the Johns Hopkins University School of Medicine and Kennedy Krieger Institute, which is where she had previously completed an predoctoral internship and a post-doctoral fellowship. These positions include Director Training, and Director of the Paediatric Feeding Disorders Program. In 1999, she also became the Director of the Paediatric Feeding Disorders Program at the Marcus Institute in Atlanta. Following this, she joined the University of Nebraska Medical Center and became the Director of the Feeding Disorders Program at Munroe-Meyer Institute. Dr. Piazza has also been involved in the Journal of Applied Behaviour Analysis as an Associate Editor, former Book Editor and a Editor.

PRODUCTS

If you're teaching self-help skills, dressing, tooth brushing, shoes, etc., then you may find this wish list, full of a variety of products, helpful.

STUDY TIPS

Visit the BACB website to learn more about the different credentials. It is helpful to know about each as you develop your career with the field. If you plan to become a Board Certified behaviour Analyst (BCBA), you may wish to supervise others, so it will be crucial to know about the different certifications.

Next month we're looking at *Attention Deficit Hyperactive Disorder (ADHD),* so be sure to subscribe so you receive the next exciting edition.

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