Is Behaviourism Dead? Why Does This Matter (or Not Matter)? A Keynote Address

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Abstract

I have been researching the impacts of behaviourism on the wellbeing of autistic and neurodivergent young people for several years now, and it has become the focus of my dissertation. The history of behaviourism is full of taboos and silenced narratives from all sides, making it an excellent topic for this year's 20th Annual York University Graduate Student Conference in Education. It is an honour to be here.

Keywords: behaviourism; stigma; autism; learning theory; Applied Behaviour Analysis

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Good evening, everyone. Thank you so much for your interest in my talk today titled, *Is Behaviourism Dead? Why Does This Matter (or Not Matter)?* For those of you who benefit from a visual description of me, I am a white woman approaching middle age; I am wearing cat eye style glasses and have short bobbed-style brown hair with a fringe.

I have been researching the impacts of behaviourism on the wellbeing of autistic and neurodivergent young people for several years now, and it has become the focus of my dissertation. The history of behaviourism is full of taboos and silenced narratives from all sides, making it an excellent topic for this year's 20th Annual York University Graduate Student Conference in Education. It is an honour to be here.

Figure 1

Noam Chomsky and B.F. Skinner¹



In Figure 1, I have placed two photos of two prominent figures in the history of behaviourism – you may recognize them as Noam Chomsky on the left, and B.F Skinner on the right. In between the two photos I placed an image of a pair of red boxing gloves to symbolize the heated debate levied by Chomsky in 1959 (see Chomsky, 1967) in response to Skinner's highly influential book, *Verbal Behavior* (Skinner, 1957). This is a significant moment in history

¹Images retrieved from: <u>https://simple.wikipedia.org/wiki/Noam_Chomsky</u> https://thechildcareacademy.co.uk/childcare/childcare-heros-bf-skinner/

when many scholars came to believe that behaviorism was dead, largely due to Chomsky's criticisms and evidence disproving Skinner's theories. However, as you will see throughout this presentation, behaviourism has done anything and everything *but* die. In fact, it may be as strong today as it ever was.

By the time Skinner published *Verbal Behavior* in 1957, behaviorism had been gaining momentum since the 1920s. One notable example is John Watson's famous Baby Albert experiment, which classically conditioned fear responses in babies. As educators, I know most of us are aware of these theories so I will not go into detail. What is important here is that Skinner expanded theories of behaviourism to focus on the usefulness of operant conditioning, particularly the use of positive reinforcements, or rewards, to shape human behaviour. Skinner firmly believed that the use of rewards could be an effective means of changing behaviour because behaviour (including thoughts, language, and feelings) is dependent upon the stimuli encountered by individuals in their environments (Skinner, 1957, 1974).

In other words, we do things or, conversely, we avoid things based on what we experience in our environments. For example, a child learns to say "I am hungry" because the word "hungry" communicates the feeling of hunger, which results in the reward of food. This logic led Skinner to believe that by manipulating the contingencies of one's environment, we can predict and control verbal behaviour. For example, if we withhold food from someone, we then increase the likelihood that this person's verbal behaviour of "I'm hungry" will occur.

As a cognitive scientist, Chomsky was deeply troubled by Skinner's "'empiricist' speculations as to the nature of higher mental processes" (Chomsky, 1967, para. 2), including the development of language. What does this mean? The "empiricist speculations" Chomsky was concerned with involved the orthodoxy of Skinner's claims that behaviour, including verbal

behaviour, is entirely predictable. Chomsky's main critique of this theory is that the simplistic taken-for-granted truths about behaviour as dependent upon the environment ignore the natural innate human development of language that derives from things like observing the environment, imitating others in our environment, learning for the sake of learning without external motivators, and so on.

Figure 2



Humanizing and Dehumanizing in Behaviorism

In Figure 2, I have placed a white arrow symbol stretching from left to right with arrow heads on either side labelled "dehumanizing" and "humanizing".

Behaviourism has been viewed as dehumanizing in that it ignores the validity of innate human behaviours driven by curiosity, free will, and self-determination. It has also been described as humanizing as it helps us to understand that some undesirable behaviours, such as criminal behaviours (e.g., stealing, violence, etc.), can be shaped by stimuli in the environment that have resulted from the societal impacts of oppression. In other words, negative behaviours are not caused by an individual's innate tendency toward violence or crime; rather, they are caused by the unfair circumstances in their environment. This becomes important later so please remember these key dehumanizing and humanizing applications of behaviourism at both ends of the theoretical spectrum.

The Chomsky vs. Skinner debate, which can also be characterized as the nature versus nurture debate, has endured through the decades with writing and conversations on the topic continuing to this very day – this keynote being one example.

The taboo in this first part of my discussion of behaviourism lies in the hegemony of behaviourist theory at the time Chomsky wrote his famous critical review (see interview in Virués-Ortega, 2006).

There were certainly many, many critiques of behaviourism beyond Chomsky's criticisms. Some of these critiques became known collectively as the Third Force in psychology and were headed by prominent psychologists exploring humanistic theories of human experiences. These included Rollo May, Carl Rogers, Clark Moustakas, Abraham Maslow, and Gordon Allport. I do not profess to be an expert on this history, nor all the debates or criticisms that have existed. What I do know is that behaviourism has *staying power* despite declining in popularity at times due to very well-researched criticisms. I will touch on some reasons for behaviourism's staying power in a moment.

Figure 3

Piglets Rooting²

² Image retrieved from:

https://commons.wikimedia.org/wiki/File:Rooting_piglets_alongside_the_B3078,_New_Forest__geograph.org.uk_-_590779.jpg



Figure 3shows a photograph of five piglets rooting in the dirt. 'Rooting' is a pig's natural instinctual behaviour to attain comfort, to communicate, and to find food. I place this image here because early behaviourists, under the supervision of Skinner, conducted lab experiments to see whether they could train pigs to pick up a coin and put it in a mail slot when rewarded with edible reinforcements. Their rooting behaviour was not reinforced. Similar experiments were also conducted with pigeons and rats.

What the researchers found was that eventually, the pigs would return to their instinctual behaviors of rooting and ignore the edible reinforcement to the point of near starvation. In essence, the animals' instinct to engage in their natural rooting behaviour took over and the researchers abandoned the experiments. They were unable to prove that reinforcements work to shape behaviour (Chomsky, 2017; Virués-Ortega, 2006). The abandonment of these experiments is not widely known – it is a taboo.

Tabooed and Silenced under the Continued Popularity and Success of Behaviourism

Many studies over the decades have also found that the focus on the use of external rewards by behaviorists has actually *impeded* the natural development of self-determination in

children and diminishes intrinsic motivation to learn (Deci, 1971; Kohn, 2018; Lepper & Greene, 2015; Ryan & Deci, 2000). These studies gained significant momentum and have contributed to the growth of humanistic theories that continue today. These studies, and others, are referenced on the resource sheet provided to you.

For these reasons (among others) many scholars in the fields of education and psychology feel that behaviorism should have died as a valid theory of learning in the 1960s. Yet here we are – behaviourism is alive and well. In fact, the practice of Applied Behaviour Analysis (ABA) in psychology and education is in the process of becoming a regulated profession under the new *Psychology and Applied Behaviour Analysis Act, 2021* with a new PhD program launched at Brock University (Brock University Academic Programs, 2024; College of Psychologists of Ontario, 2023).

One of Skinner's most famous students, Ivar Lovaas, said this: "If they can't learn the way we teach, we teach the way they learn".³ I call attention to Lovaas because he is a key reason why the theory of behaviourism has managed to rebuild and thrive. This quote seems equitable, right? He seems nice, right? But looks are deceiving and a taboo history hides behind this smile.

I always find it fascinating that these particular words could come from a man like Lovaas who is responsible for the dehumanizing use of Applied Behaviour Analysis (ABA) as a treatment and therapy for autistic children. Lovaas also worked closely with psychologist George Rekers on a doctoral research project that used the principles of ABA to treat the "deviant sexrole behaviours in a male child" (see Rekers & Lovaas, 1974, p. 173). This use of ABA as a form of gay conversion therapy has been silenced in attempts to keep the market of behaviourism

³ See AZ Quotes for this image: <u>https://www.azquotes.com/quote/546326</u>

thriving, especially as a treatment for autism. In fact, it has been argued that Lovaas's approach to normalizing the behaviour of autistic kids through methods of reward and punishment procedures is what brought behaviourism back from its near death in the 70s and 80s.

Figure 4

Black and White Robot⁴



In Figure 4, I have placed a black and white line sketch of a robot. This image is a visual representation of another famous quote by Lovaas in 1974:

You have a person in the physical sense — they have hair, a nose and a mouth — but they are not people in the psychological sense. One way to look at the job of helping autistic kids is to see it as a matter of constructing a person. You have the raw materials, but you have to build the person. (p. 11).

As evidenced by this quote, Lovaas did not believe autistic kids were human. His view that autistic children were "close to tabula rasa" (Lovaas & Smith, 1989, p. 23), or blank slates, convinced many psychologists and parents that autistic children needed external reinforcements in order to fill up their 'slates' with more humanistic behaviours. His goal was to condition autistic children to be "indistinguishable" from their "normal" peers using intensive methods of

⁴ Image retrieved from: <u>https://openclipart.org/detail/311808/retro-robot-line-art</u>

positive reinforcements (e.g., food, hugs, praise) and punishment procedures (e.g., skin shocks, verbal reprimands, and physical slaps on the thigh) (LIFE Magazine, 1965; Lovaas, 1981).

As a therapy for autism, ABA gained the most popularity following Lovaas's (1987) randomized control study measuring the observable behaviour change of 19 autistic children. Lovaas rationalised that the operant conditioning procedures were necessary to eliminate what he felt were abnormal or problematic behaviours (e.g., hand flapping, self-injury). Simply by changing the autistic child's outward behaviour in the most efficient way possible, Lovaas and his colleagues felt confident in their theory that they were "building a person where little had existed before" (Lovaas & Smith, 1989, p. 24). Today in Ontario, Lovaas's (1987) methods continue to be cited in recent ABA literature as evidence that ABA is an effective approach to inclusion, quality of life, and overall wellbeing (Ontario Scientific Expert Task Force for the Treatment of Autism Spectrum Disorder [OSETT-ASD], 2017).

Interesting fact, Lovaas's results did *not* provide compelling evidence of ABA effectiveness, nor have many other studies of ABA since this time. Again, this fact is rarely discussed – it is silenced as a taboo subject. References to studies that find limited evidence supporting ABA are listed on your handout.

In the 1980s, Lovaas's approach was viewed by many as the most humane alternative to institutionalization, which was often the only treatment option and resource for families caring for autistic children. Many psychologists and parents became convinced that the efficiency of ABA was the best answer to the deinstitutionalisation of their children (Silberman, 2015; Yergeau, 2018). And thus, behaviourism regained powerful legitimacy.

So how did we get to this place where autistic people were stigmatized to the point of dehumanization and in need of normalization to achieve the right to live in communities outside

of institutions? The answer lies in centuries of stigma and power, which, in the case of North America, ties closely to the value placed on productivity in capitalist neoliberal societies. If a person does not conform to the norms of society in ways that benefit society, they need 'fixing'.

Figure 5

Medical model of disability⁵



In Figure 5 I have placed an image outlining the medical model of disability which states "The problem is the disabled person who ...can't understand instructions; can't hear, see, walk; needs/wants to be cured; can't use public transport; has no value to society; can't communicate; can't live independently; can't understand instructions." (The Wheelchair Skills College, 2022).

The ABA industry remains firmly embedded in this model with little reference to the strengths and abilities of autistic people. To date, no ABA practice certifications include training in the lived experiences of the unique developmental needs of autistic children (Memmott, 2023). Instead, ABA has become a key component of what many refer to as the Autism Industrial Complex (AIC) that capitalizes on deficit-based assumptions of autism with the aim to help them fit into an ableist world (Broderick, 2022).

⁵ Donnelly, P. (2022). *3 societal views of disability*. The Wheelchair Skills College. <u>https://www.wheelchairskills.org/blog/disabilitymodels</u>

As one behaviour analyst, Justin Leaf, put it: "...behavior analysts also have an obligation to best prepare their clients for the world in which they currently live, which is, unfortunately, less accepting than desired." (Leaf et al., 2021, p. 8).

It is generally an agreed upon truth that stigmatized attitudes have persisted to the present day, and that these attitudes are harmful. Unfortunately, some behaviour analysts believe that the best solution to this problem is to change the autistic person rather than change the environment. Clearly, this is problematic and there are calls for a ban of ABA practices by autistic people and allies worldwide. It is wrong to subject autistic people to punishments, and even reward systems, when the objective is forced compliance with antiquated, power-driven, colonial, and capitalist societal norms.

This presumption that autistic children need to be prepared to 'fit into' a less than accepting world has contributed to one of the most problematic assumptions of ABA, which is that autistic children lack internal motivation. Let's explore this a little further.

Figure 6

Golden star⁶



In Figure 6, I have placed an image of a gold star to represent how Skinner's deterministic theory of behaviour sees all behaviour as shaped by external reinforcements (rewards).

⁶ Image retrieved from: https://openclipart.org/detail/262404/cartoon-gold-star

Beside it is a quote from an ABA practitioner in a popular training manual for educators in Ontario. It reads, "Real Story – The Power of Reinforcement: So, I worked with students with Autism Spectrum Disorder for years. One of the things I found was that it was very challenging to get them to do just regular everyday things: putting on a coat or going to their desk. Eventually I realized that there wasn't anything in it for them, so I started using reinforcers and that made a real difference in terms of their willingness to do the things that needed to be part of their daily routine." (Geneva Centre for Autism, 2019, p. 9)⁷. In this example, no attempt has been made to find the reasons why a student would not go to their desk or put on their coat there could be sensory issues related to the coat or difficult emotions related to the desk work. The ABA practitioner seems to have assumed that autistic young people are incapable of learning the skill of putting on a coat or doing desk work without some kind of tangible reinforcement or reward. This assumption, without basis in evidence, is instead based on what the non-autistic practitioner observes. This is common in ABA practice.

Reward systems and gold sticker charts are still largely presumed to be an ethical and positive means of supporting autistic children to gain skills. The problem with this approach is the skills being reinforced are often neurotypical skills. This causes autistic people to camouflage their natural autistic traits and aim to fit into our production-oriented society. This is further reinforced by school systems that are still operating on outdated models of instruction carried over from the industrial era.

Reward systems are also used to reinforce what is viewed as acceptable and 'good' behaviour without first considering the underlying reasons children exhibit behaviours such as avoidance, tantrums, or lashing out. What is missed is that these behaviours can occur due to

⁷ This document is not in the public domain. Contact the author for a copy.

ableism, pressure to perform, and the chronic experience of being misunderstood. This has been described by Ontario autistic researcher and psychotherapist, Gordon Gates, as "invalidation trauma" caused by societal stigma (Gates, 2019).

Remember the humanistic spectrum of behaviourism mentioned earlier? It has been completely forgotten when it comes to autistic children whose 'challenging behaviors' are viewed as an innate characteristic of their autism rather than because of oppression and stigma in society.

A short video clip of B.F. Skinner explains his assumptions of disabled people's lack of motivation.⁸ He said the following: "[disabled people] are not sensitive to contingencies of reinforcement. So, what we need to do is to make the reinforcements more conspicuous. This is done with a token economy ..." (Biophily2, 2016, 9:30).

This assumption that disabled people lack motivation has contributed to the widespread use of token economies (i.e., reward systems), especially as we see now in special education programs nationwide.

Figure 7

Universal rainbow infinity symbol⁹



⁸ Trigger warning: extreme ableist language

⁹ Image retrieved from: https://commons.m.wikimedia.org/wiki/File:Neurodiversity-2013-Flag.png

In Figure 7 I have placed the universal rainbow infinity symbol of neurodiversity with the hashtag #betterwaysthanaba, which emerged as a movement in response to the harm caused by ABA practices due to the compliance-based methods that value conformity at the expense of children's wellbeing (Anderson, 2019; Kupferstein, 2018; Neuroclastic, 2021). Autistic people across the globe have shared their lived experiences of the ways ABA has caused them trauma due to the rigidly applied reward and punishment strategies that were used to make them appear less autistic and more neurotypical (see Ask an Autistic, 2019; Neuroclastic, 2021).

There are many, many neurodiversity-affirming support models available that are grounded in neuroscience and autistic lived experiences. Neuro-affirming approaches uncover genuine autistic needs beyond observable behaviours that are deemed in need of change.

But guess what? These approaches are rarely spoken of in education – they are silenced and, you guessed it, tabooed! I have added resources of these approaches to your hand out. However, what I want to emphasize tonight is this: destigmatizing and decolonizing our approaches to education and care through learning about children's lived experiences is the first most important step no matter what modality we use.

Figure 8

Smiley face¹⁰



¹⁰ Image retrieved from: https://www.cleanpng.com/png-computer-icons-smiley-happiness-clip-art-happy-and-4286461/

In Figure 8 I have placed the happy face emoji to symbolize a growing movement currently happening within the field of ABA. Some ABA practitioners have been listening to autistic people's concerns and have developed newer approaches in treatment rooms and classrooms that adhere to what they call a person-centered model of ABA that emphasizes the need to keep autistic children (and to quote Greg Hanley) "happy, relaxed, and engaged" by creating rewarding learning environments (Hanley, 2021, para. 3). This model is humanistic and an improvement over forced compliance and punishment procedures. As with more traditional ABA, newer forms of ABA continue to rely on the use of positive reinforcements while rejecting Lovaas's dehumanizing methods. Sounds good right? What could go wrong?

One new approach within this reformed ABA is a curriculum called the Accept Identify and Move (A.I.M.) curriculum that is intended to incorporate a focus on mindfulness and human values for the betterment of young people's emotional wellbeing. It adopts Skinner's theories of positive reinforcements to shape verbal behavior, including private thoughts and emotional responses, and is becoming popular for use within special education programs and treatment centres in Ontario.

Here is another interesting taboo- A.I.M is packaged as an approach that increases the wellbeing of autistic children yet was created by non-autistic practitioners. Go figure! Let's have a look at one way it is implemented in the United States (you can watch the "AIM in Action" video here: https://www.youtube.com/watch?v=IzqT1NO4DYg). The video introduces the goals and methods of the A.I.M curriculum at one elementary school in Illinois, teachers described the ways the curriculum is implemented in action (see AIM in Action, 2020). First, the teacher expressed pride in how the whole school is involved in a brightly decorated supportive environment wherein students "can earn rewards and... points to buy opportunities to get out of

the classroom and do really special things in the school" (0.26). Throughout the video, the camera reveals what are known as the six "points of the ACT Hexaflex: acceptance, defusion (i.e., separate yourself from your thoughts), present moment attention, self-as-context, values, and committed action" (Hayes et al., 2006). These Hexaflex reminders artfully decorate the classroom walls with messages for the students such as, "Values: 'What are you working for?'" and "Committed action: 'Change your behavior toward values'" and "Acceptance: 'Be OK with Good and bad things in life" and "I am your thoughts, so just let me PASS BY!" (i.e., let your thoughts pass by without judgement or reaction). There are reward bins for students who follow these Hexaflex reminders, all labelled with point values of 20, 50, 100 etc., and filled with snacks, candies, stickers, and school supplies. Colourful signs around the classroom read: "Ways to earn daily points" with lists of values including "Respect, Responsible, Positive attitude, tasks completed on time/follow directions", etc.-each item is listed using check mark symbols to signify their importance. Another sign reads: "Ways to earn extra points... 'Test grades: A-200 pts, B-100 points, C-50 pts' ... Perfect attendance – 100 points'" etc. In addition, students are reminded they can lose points: "Mindfulness Classroom Points Loss Matrix: Action - 'Talking during class – cost 10 points', 'being disruptive – 50 points', 'sleeping – 50 points', 'Head down - 20 points', 'disrespect staff - 50 points'... 'refusal to follow directions - 100 points'" etc. (AIM in Action, 2020)

Can we see problems with this approach? My own thoughts and experiences tell me that not all young people have the privilege to exhibit what is deemed to be "good behaviour". Imagine being discriminated against due to poverty, racism, homophobia, ableism, or all of these intersectional experiences at the same time on a daily basis. Getting good grades or even getting to school on time would be very difficult; meltdowns would be inevitable; stealing due to

poverty could be a survival strategy, copying other students' grades just so that they can receive their points would be understandable. Again, the humanistic element of behaviourism that understands the impacts of oppressive environments on behaviour has been completely forgotten!

This brings me to my final taboo regarding ABA. As much as I disagree with ABA and its harmful applications, I am not sure it is time to throw behaviourism out with the bath water either.

Tiffany Hammond, a Black mother of Black autistic children is frustrated by singular efforts to ban ABA. As articulated in Hammond (2022):

The ableism you know and face today, was born of the racism Black and brown bodies faced yesterday. Your fight to eradicate ABA in its entirety will fail not only because it is a symptom of a compliant based society, but also because it is a symptom of a racist, compliant based society.... you are focusing your efforts on removing the strongest means by which Black bodies survive in this society, behaviorism, which will leave us more vulnerable than we already are, and are doing nothing about the systems that keep us at a disadvantage, harm us, and birthed ABA in the first place. (p. 8).

What Tiffany is responding to here is the historical efforts to ban ABA (e.g., Autistic Collaboration, 2022), which can miss the root of the deeper systemic problems which include centuries of anti-black racism, colonialism, and pressure to conform (Hammond, 2022; Lewis et al., 2022). Neither Watson nor Skinner nor any other 20th century behaviourists invented behaviourism. They simply put a name to the underlying theories that explain many of the ways power has been exerted over nonconforming, queer, racialized, young, and disabled people for

centuries. Slavery, the residential school system, and other forms of control are all rooted in punishment and reward systems – these are theories of behaviourism.

Erevelles (2000) discussed the ways in which this history has characterised nonconforming bodies as 'unruly' and 'disruptive'. She explained that "In an attempt to control these 'disruptive excesses' of unruly bodies, schools have developed elaborate practices that support the rigid organization of classroom space and time, the overriding emphasis on discipline, and the careful monitoring of the curriculum" (Erevelles, 2000, p. 33). Without dismantling the deeply entrenched biases that form our ideals of 'good', 'moral', 'compliant', and 'normative behaviour', even new 'improved' approaches will reproduce the same oppression. We saw this with the compliance-based application of the A.I.M. curriculum, and we will also see it in other approaches, not based on behavioural models.

Another taboo subject- Yes, ABA remains harmful, no question. At the same time, many autistic families are also left with little choice but to comply with the system that we have, one entrenched in behaviorism. This particular discussion is difficult and requires a deep and nuanced understanding of the ways our systems operate. It is also deeply racist to justify practices like ABA as necessary for Black autistic people's survival.

Cheyenne Thornton (2021), a Black autistic activist and blogger, expressed frustration with the popular "race-based excuses":

There are ABA professionals who push the need for ABA due to dangers faced by autistics of marginalized races and ethnicities. They argue that it's necessary for Black, Indigenous, and other minority neurodivergents (NDs) to learn to mask because it will make life better or safer when facing law enforcement or racial tensions. I can say with 100% certainty that this is complete bullshit– not to mention racist.(para. 12)

The way I see it, what is needed, essentially, is a ban on racism and a ban on the need for compliance. Without this, all approaches to care and education risk becoming implemented in harmful ways.

On this final slide I have placed a leaf alongside Hammond's important point: "... but it was never about *just* ABA. It was about all of it. ABA is a leaf" (p. 3).

This brings me back to my original question—is behaviourism dead? Does this even matter? ABA is big business. Eradicating it may be impossible. And even if it were possible, then what? Would our problems be solved?

I conclude with a final taboo subject of inquiry - when compliance is no longer the goal, and if racism and ableism are eradicated from our approaches to education, can aspects of ABA or behaviourism be salvaged? Is there room for behaviourism in our school systems? Can behaviourism become ethical? Can it become humanizing in practice? These are difficult questions to ask, and is a taboo subject for many, due to the long-lasting effects of trauma as a result of rigid compliance-based behavioural methods.

There are actually some fantastic justice-oriented ABA practitioners, several of whom are autistic, queer, and racialized, who are doing the genuine work of reforming their practices. I have listed these folx on the handout as well.

Is it possible to shift our focus toward working with practitioners, educators, and policy makers of all kinds, including those invested in behaviourism, to destigmatize and decolonize deeply entrenched ableist and racist belief systems? How is this done and what does it look like practically? These are all important questions and discussions which I hope we can continue having together.

References

- AIM in Action (Director). (2020, September 25). *AIM: Accept-identify-move* [Video]. Youtube. https://www.youtube.com/watch?v=IzqT1NO4DYg
- Anderson, L. (2019, March 27). Is ABA really "dog training for children"? A professional dog

trainer weighs in. The Aspergian. https://theaspergian.com/2019/03/27/is-aba-really-dog-training-for-children-a-professional-dog-trainer-weighs-in/

Ask an Autistic. (2019, August 11). The great big ABA opposition resource list. Stop ABA,

Support Autistics. https://stopabasupportautistics.home.blog/2019/08/11/the-great-bigaba-opposition-resource-list/

Autistic Collaboration. (2022, February 16). Ban of all forms of Applied Behaviour Analysis. https://autcollab.org/aba/

Biophily2 (Director). (2016, September 20). B. F. Skinner-Skinner on behaviorism (1977)

[Video]. Youtube. https://www.youtube.com/watch?v=rDi9VdEzpeI

Brock University Academic Programs. (2024). Applied behaviour analysis (PhD). Brock

University. https://brocku.ca/programs/graduate/applied-behaviour-analysis-phd/

Broderick, A. A. (2022). *The autism industrial complex: How branding, marketing, and capital investment turned autism into big business* [eBook edition]. Myers Education Press.

Chomsky, N. (1967). Review of B. F. Skinner's verbal behavior. In L. A. Jakobovits & M. S.

Miron (Eds.), *Readings in the Psychology of Language* (Vol. 1, pp. 142–143). Prentice-Hall. https://chomsky.info/1967___/

Chomsky, N. (2017, March 27). Noam Chomsky on behaviorism [Video] Youtube.

https://www.youtube.com/watch?v=OrQ0LfqxABM

College of Psychologists of Ontario. (2023, July 25). Regulations for Applied Behaviour

Analysis receive approval, proclamation date announced. https://cpo.on.ca/regulations-for-applied-behaviour-analysis-receive-approval-proclamation-date-announced/

Deci, E. (1971). Effects of externally mediated rewards on intrinsic motivation. Journal of

Personality and Social Psychology, 18(1), 105–115. http://dx.doi.org.ezproxy.library.yorku.ca/10.1037/h0030644

Erevelles, N. (2000). Educating unruly bodies: Critical pedagogy, disability studies, and the

politics of schooling. *Educational Theory*, 50(1), 25–47. https://doi.org/10.1111/j.1741-5446.2000.00025.x

Gates, G. (2019). Trauma, stigma, and autism: Developing resilience and loosening the grip of shame[eBook Edition.]. Jessica Kingsley Publishers.

Geneva Centre for Autism. (2019). ABA for educators level II: Practical applications of

reinforcement and prompting in the classroom. https://courses.sonderly.io/course_/t22110/s22298-aba-for-educators-level-ii-reinforcing-and-prompting

Hammond, T. (2022, January 19). Autistic voices: This was never about ABA [Facebook]. *The Kisha Project*. https://thekishaproject.com/aba/

Hanley, G. (2021, September 9). A perspective on today's ABA from Dr. Hanley. Practical

Functional Assessment: Understanding Problem Behavior Prior to Its Treatment. https://practicalfunctionalassessment.com/2021/09/09/a-perspective-on-todays-aba-by-drgreg-hanley/

Hayes, S. C., Bond, F. W., Barnes-Holmes, D., & Austin, J. (Eds.). (2006). Acceptance an mindfulness at work: Applying acceptance and commitment therapy and relational frame theory to organizational behavior management. Routledge.

Kohn, A. (2018). Punished by rewards. Mariner Books.

Kupferstein, H. (2018). Evidence of increased PTSD symptoms in autistics exposed to applied behavior analysis. *Advances in Autism*, 4(1), 19–29. https://doi.org/10.1108/AIA-08-2017-0016

Leaf, J. B., Cihon, J. H., Leaf, R., McEachin, J., Liu, N., Russell, N., Unumb, L., Shapiro, S., &

Khosrowshahi, D. (2021). Concerns about ABA-based intervention: An evaluation and recommendations. *Journal of Autism and Developmental Disorders*, *52*(6), 2838–2853. https://doi.org/10.1007/s10803-021-05137-y

Lepper, M. R., & Greene, D. (2015). *The hidden costs of reward: New perspectives on the psychology of human motivation*. Psychology Press.

Lewis, C., Joseph, T., & Hammond, T. (2022, April 7). *ABA, advocacy, and intersections with Chazz Lewis, Tiffany Joseph, and Tiffany Hammond.* NJ Autism Center of Excellence. https://www.youtube.com/watch?v=eZSq1vj4O5Q

LIFE Magazine. (1965, May 7). Screams, slaps, and love. LIFE Magazine. https://bpb-us-

e1.wpmucdn.com/blogs.uoregon.edu/dist/d/16656/files/2018/11/Screams-Slaps-and-Love-Life-Magazine-13javg3.pdf

Lovaas, I. (1974). *Ivar Lovaas interview with Paul Chance* (P. Chance, Interviewer) [Psychology Today]. http://neurodiversity.com/library chance 1974.html

Lovaas, I. (1981). Teaching developmentally disabled children: The me book. Pro-Ed.

Lovaas, I. (1987). Behavioral treatment and normal educational and intellectual functioning in young autistic children. *Journal of Counselling and Clinical Psychology*, 55(1), 3–9.

Lovaas, I., & Smith, T. (1989). A comprehensive behavioral theory of autistic children:

Paradigm for research and treatment. *Journal of Behavior Therapy and Experimental Psychiatry*, 20(1), 17–29. https://doi.org/10.1016/0005-7916(89)90004-9

Memmott, A. (2023, January 22). Ethics and Autism: Rights and responsibilities within Applied

Behaviour Analysis - research by Ann Memmott PgC MA. Ann's Autism Blog. http://annsautism.blogspot.com/2023/01/ethics-and-autism-rights-and.html

Neuroclastic. (2021, August 17). ABA horror stories are far too common.

https://neuroclastic.com/aba-horror-stories-are-far-too-common/

Ontario Scientific Expert Task Force for the Treatment of Autism Spectrum Disorder [OSETT-

ASD]. (2017). Evidence-based practices for individuals with autism spectrum disorder: Recommendations for Caregivers, Practitioners, and Policy Makers. The Ontario Association for Behavioural Analysis. https://www.behaviourinnovations.com/app/uploads/2019/03/ONTABA-OSETT-ASD-Report.pdf

Rekers, G. A., & Lovaas, O. I. (1974). Behavioral treatment of deviant sex-role behaviors in a

male child. *Journal of Applied Behavior Analysis*, 7(2), 173–190. https://doi.org/10.1901/jaba.1974.7-173

YU-WRITE: Journal of Graduate Student Research in Education (2024, vol. 3, no. 2) 23

- Ryan, R., & Deci, E. (2000). Self-determination theory and the facilitation of intrinsic motivation, social development, and well-being. *American Psychologist*, 55(1), 68–78. https://doi.org/10.1037/0003-066X.55.1.68
- Silberman, S. (2015). *Neurotribes: The legacy of autism and the future of neurodiversity*. Penguin.
- Skinner, B. F. (1957). Verbal Behavior. Prentice-Hall.
- Skinner, B. F. (1974). About behaviorism. Vintage.
- The Wheelchair Skills College. (2022). https://www.wheelchairskills.org/blog/disabilitymodels

Thornton, C. (2021, April 18). ABA for creating masking black autistics. NeuroClastic.

https://neuroclastic.com/aba-for-creating-masking-black-autistics/

Virués-Ortega, J. (2006). The Case Against B. F. Skinner 45 years Later: An Encounter with N.

Chomsky. The Behavior Analyst, 29(2), 243. https://doi.org/10.1007/BF03392133

Yergeau, M. (2018). *Authoring autism: On rhetoric and neurological queerness* [eBook edition]. Duke University Press.