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Higher education, behaviour analysis, and autism: time for coalescence

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This special issue represents the cumulation of discussions at the 2nd International Summit on Higher Education, Autism, and Behavior Analysis that was held in Stockholm, Sweden, January 2018. This summit followed the 1st International Summit that was held in Texas, USA, September 2009. At that time, the rapidly rising prevalence rates of autism worldwide and the urgency of consumer protection meant that the summit focused on developing suitable Higher Education programs for behaviour analysts. The proceedings of the 1st Summit were published in a special issue of the *European Journal of Behavior Analysis* (Ala'i-Rosales et al., 2010).

Since then, the discipline has grown exponentially. We now have 306 Higher Education institutes that deliver verified course sequences (VCS) in Behaviour Analysis worldwide. However, most of these courses are located in the USA (n = 217), with only 34 of these courses located in Europe, and the quality of community-based support for families affected by autism remains a major concern (Keenan & Dillenburger, 2018; Roll-Pettersson et al., 2016). The purpose of the $2^{\rm nd}$ Summit was to discuss future directions, requirements, opportunities, and challenges for Higher Education in the field of Behaviour Analysis, specifically with regards to autism intervention.

Globalisation and disciplinary identity

At the end of December 2019, the Behavior Analyst Certification Board (BACB) notified the international community about changes to their certification procedures to come into force by the end of 2022. Up until then, behaviour analysts worldwide could become Board Certified Behavior Analysts (BCBA), based on their training and experience, regardless of their place of residence. After this date, only residents of the USA/Canada will be able to sit the BCBA exam. The reason for this decision was anchored in requirements for recognition by the professional body in the USA/Canada. For obvious legal reasons, professional bodies can only approve a profession within their own country boundaries and jurisdiction. Of course, this is true also for European countries. While the BCBA was not professionally recognised in any European government, it had served as

a useful benchmark for advocacy in the fight for professional recognition of behaviour analysts internationally (Gandalovičová, 2016; Keenan et al., 2014; Kelly et al., 2018). Not surprisingly, therefore, the decision by the BACB sent shock waves across the international behaviour analyst community. In this special edition of the European Journal of Behavior Analysis, the BACB's Director of Internationalisation, Dr Neil Martin, and their Chief Executive Officer, Dr Jim Carr, (2019) outline the history of the BACB and the growth in numbers of BCBAs and Higher Education courses. They make a strong case for professional recognition of European behaviour analysts based on internationally established training and experience standards.

Without high standards, good quality training, and professional recognition, the term "Behaviour Analysis" can be misused and misunderstood and even caricatured into oblivion (Freeman, 2003; Morris, 2009). Therefore, the language we use is important and some have argued that it may be time for a change in the name of our science itself. Carr, Luke, and Arntzen (2019) discuss the trend in rebranding Behaviour Analysis as "Behaviour Science". They caution that terms borrowed from common parlance already have a denotation and, therefore, could add to the confusion. They conclude that efforts should focus on the removal of barriers to dissemination, rather than altering the name of the discipline.

Autism interventions and quality control

There is no doubt that Applied Behaviour Analytic interventions can support children and adults on the autism spectrum and their families effectively (NAC, 2015; Surgeon General, 1999) and that they can have long-lasting effects (Smith et al., 2019). These interventions can address critical needs, accelerate development, and change quality of life for children with autism and their families. Amongst the many interventions that are based on Behaviour Analysis, Early Intensive Behaviour Interventions (EIBI) are probably the most widely used in the field of autism, especially with young children. Eldevik, Titlestad, Aarlie, and Tønnesen (2019) describe the outcomes of community-based early behavioural interventions for children with autism. They found that while children who received more intensive behaviour analytic interventions made more gains than children who received lower intensity behaviour analytic supports, all of these children's outcomes were superior when compared to eclectic interventions.

Educating children with autism together with their typically developing peers is the internationally agreed aim of inclusive education (UNESCO, 1994). However, while the philosophy of inclusiveness, disability rights (UNCRPD, 2006), and the rights of the child (UNCRC, 1990) is beyond question, the actual methods to achieve proper inclusion are largely inadequate (NCSE, 2011) and parents of children with disabilities worry that teachers are not ambitious enough (Lamb, 2010). Engelman (2014) hit the nail on the head when he said that, "If the children aren't learning, we are not teaching". McGee, Morrier, and Ala'i-Rosales (2019) showcase the effectiveness of systematically designed university laboratory schools, such as the Walden School, as a way ahead. Walden offers a comprehensive intervention program for children with autism using environmental design and incidental teaching. Walden also serves as a higher education training and research site for behaviour analysts. The authors offer university-based behaviour analytic research-practice links that are effective and inclusive.

Of course, behaviour analytic interventions are designed not only for the very young child with autism, they focus also on the whole family (Taylor et al., 2019). Parents of children with autism, in particular, need support. Prevedini, Hirvikoski, Bergman, Berg, Miselli, Pergolizzi and Moderato (2020) discuss Acceptance and Commitment Therapy (ACT) and show its usefulness as an intervention for parents who are dealing with emotional stress and the responsibilities of caring for a child with autism. They call educators to include instruction about these interventions in Higher Education programs to ensure that ACT becomes accessible for larger numbers of families affected by autism.

Despite the large amount of evidence in support of behaviour analytic interventions for children with autism and their families, there still is a gap between research, training, practice and policy (Dillenburger et al., 2016). Odom, Hall, and Suhrheinrich (2019) describe Implementation Science and Organizational Behaviour Management (OBM) as methods that promote the adoption of evidence-based interventions into everyday life. They suggest that these methods can be useful tools for behaviour analysts who advocate for recognition of Behaviour Analysis in government policy, especially in regard to strengthening the effectiveness and quality of Higher Education programmes.

Higher education training for behaviour analysts

While the number of Behaviour Analysis courses that are available at Higher Education Institutions in Europe is increasing, the teaching methods on these courses far too often follow traditional Higher Education models that lead to "death by power-point" (Taylor, 2007). It is time for behaviour analyst trainers to use Behaviour Analysis to teach Behaviour Analysis (Keenan, 2020). Keenan, Presti, and Dillenburger (2019) outline how behavioural and digital technologies can be used and combined, including the development of multimedia, cloud-based interventions, and e-learning more generally. They recognise that this is not an easy task for new trainers and therefore call for the development of a database of teaching gambits for teaching conceptual issues and running in-class practicals.

The future of behaviour analysis in Europe

Undoubtedly, Behaviour Analysis has a long history of formal and informal recognition and behaviour analysts' devotion to objectivity has benefitted many (Leaf et al., 2020). However, Todd (2019) warns that the field risks narrowness and isolation through the strong focus on autism. He re-calls the history of Behaviour Analysis emphasising that behavioural principles were operating and being used long before Behaviour Analysis became a science. He uses his love for horses and horse riding to make this point. Behaviour analysts did not invent behavioural principles, they discovered them, but they are not the only ones or the first who apply them. Todd reminds us that "[t]he behavior of man, with all of its refinement and complexity, forms only a part of the behaviorist's total scheme of investigation" (Watson, 1913, p. 158).

The question remains, where does the future of Behaviour Analysis lie in Europe? Using examples from seven European countries, Roll-Pettersson, Gena, Eldevik, Moderato, Sigurdardottir, Dillenburger, Keenan, and Ala'i-Rosales (2019) paint a picture of the present state of play with a focus on autism in Higher Education. They discuss historical developments, challenges, achievements, future plans, and call for the international community to support a unified process that produces high-quality behaviour analysts who will serve families affected by autism and other conditions effectively and with compassion.

Conclusion

The papers presented at the 2nd Summit in Stockholm, Sweden, focussed on the past, present and future of Behaviour Analysis, Higher Education, and autism interventions, not only in Europe but also further afield. Since the Summit was held in January 2018, two crises have elevated the importance of these papers even further. The first crisis occurred late in 2019, when the BACB decided to discontinue certification for behaviour analysts who do not reside in North America (by 2022). The second much more existential humanitarian crisis started around the same time with the Coronavirus pandemic sweeping the world.

The BACB decision forces Europeans as well as other non-US based behaviour analysts to focus their attention on professional recognition in their own countries. This was always an important but often neglected issue as behaviour analysts "sheltered" under the umbrella of the BACB (Kelly et al., 2018). Gaining national professional recognition is a difficult task for any new profession. It demands a huge amount of effort and advocacy on a mammoth scale on the part of the relevant professionals and the population they serve (Gandalovičová, 2016). Behaviour analysts have to do now what they should have done a long time ago and take the "bull by the horns" to fight for national recognition in each of their countries of residence. They can no longer shy away from it. A unified approach, such as that discussed in the papers in this Special Edition, will not only be helpful but necessary to ensure success in this endeavour.

The second crisis is a humanitarian disaster. The COVID-19 pandemic that is sweeping the world in 2020 serves as a wake-up call for everyone. It has never been truer that changing behaviours can save lives. Of course, behaviour analysts are affected personally and professionally in the same way as everyone else (Moderato, 2020; Presti, 2020). As home visits and close-contact work is not possible, unemployment looms large, and annual national and international conferences are cancelled. On the other hand, for behaviour analysts there is much work to be done. At some point in time, it may be interesting to analyse the effects that such rapid and drastic changes in metacontingencies have on human social behaviour (Glenn et al., 1992). However, in the meantime it is even more important that we use our science to help (Skinner, 1987).

There have been some great examples of behaviour analysts doing just that. By engaging in telehealth, families with children with autism are supported (Espinosa, 2020; Ferguson et al., 2019; Gundmundsdottir et al., 2019) and by ensuring adherence to recommended hygiene behaviours, such as washing or sanitising hands, contamination can be controlled, or even prevented (Bördlein, 2020; Walsh, 2020). Behaviour analysts have addressed issues related to stress, isolation, and mental health as well as learning of new skills (O'Donnell, 2019). During the pandemic, behaviour analysts have made their materials and books available free of charge (Bondy & Frost, 2020; Espinosa et al., 2020; Fein, 2020; Hume et al., 2020) or at much reduced prices (Newman, 2020).

The future of Behaviour Analysis will be determined by our decisive actions now. Friman (2017) urged behaviour analysts to concentrate on the big picture:

Skinner promoted behavior analysis as a natural science. By taking this stand, he was promoting a larger idea, specifically that behavior was solely a physical phenomenon brought about, maintained, strengthened, or weakened solely by physical (environmental) events. In other words, he was promoting the idea that behavior is a function of environmental circumstances and their context. This is the most powerful idea ever invented by mankind for understanding, knowing, and approaching human behavior especially when it is a problem. The idea is not well known, understood, or widely used. (p. 176)

Clearly, the time of coalescence is now. Mounting evidence in favour of behaviour analytic interventions should lead to the dissemination of accurate information in the field of autism as well as further afield. While behaviour analysts wrestle with issues such as training and professional recognition, it is important to remember that Behaviour Analysis is a powerful science that has the potential to alleviate suffering and increase well-being, not only for children with autism but also in a global humanitarian crisis. Higher education plays a pivotal role in the training of professionals who do this work. As the educators of future scientists and practitioners, together we create the future of our science and our profession.

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No potential conflict of interest was reported by the authors.

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