



**UK Society for  
Behaviour Analysis**

**BEHAVIOUR ANALYSIS:  
FROM SCIENCE TO PROFESSION**

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## **BEHAVIOUR ANALYSIS**

Behaviour Analysis is a scientific discipline concerned with understanding how people behave and respond to environmental events, and most importantly, how a person behaves with others in their social world. It has theoretical, experimental and applied branches: the Conceptual Analysis of Behaviour (theory), the Experimental Analysis of Behaviour (basic research), Applied Behaviour Analysis (applied research) and practice/service delivery. Just as physics is applicable wherever there are materials and forces, and biology is applicable wherever there is life, Behaviour Analysis is applicable wherever behaviour occurs.

In common with other scientific disciplines Behaviour Analysis has distinct research methods, scientific journals, textbooks, professional organisations and training programmes in the UK, Europe and worldwide. On-going research across all three branches of the science is leading to the development of new applications of Behaviour Analysis as well as strengthening the evidence base of those already established.

Thousands of studies reported in peer-reviewed journals speak to the capability of Behaviour Analysis to produce meaningful improvements in socially significant behaviours. Some of the areas in which Behaviour Analysis has evidenced effectiveness are: mainstream and special education at all levels, intellectual and developmental disabilities, attention deficit disorder, substance abuse, paediatric feeding disorders, anorexia and other eating disorders, brain injury, autism spectrum disorders, dementia, movement disorders, challenging behaviour, sports and health fitness, vehicle and pedestrian safety, organisational behaviour management, home and workplace safety, communication difficulties and delays, parenting and child welfare, gerontology, HIV prevention, language acquisition, littering, depression, anxiety, phobias, conservation of natural resources.

## **BEHAVIOUR ANALYSIS AS RECOMMENDED PRACTICE**

Behaviourally based interventions are increasingly being recognised across the world as recommended practice. In the field of autism education, selected examples include the endorsement of Applied Behaviour Analysis (ABA) in the United States by a number of state and federal agencies, including the U.S. Surgeon General and the New York State Department of Health; in France by the Haute Autorité de Sante; in New Zealand by the Ministries of Health and Education; and intensive behaviour interventions are the publicly funded intervention of choice in most provinces in Canada.

In the UK, behaviourally based interventions have been included in at least ten guidelines from the National Institute for Health and Care Excellence (NICE) covering: Borderline Personality Disorder, Depression, Parent Training, Obesity, Dementia, ASD in adults, the management of ASD in children, and Challenging

Behaviour. The Scottish Intercollegiate Guidelines Network (SIGN) supports ABA based services for individuals with autism.

## **ORIGINS OF BEHAVIOUR ANALYSIS**

The contemporary science of Behaviour Analysis has its origins in the 1930s and 1940s in university laboratories where researchers studied behaviour-environment interactions in controlled experimental settings. Founded in 1958 the ***Journal of the Experimental Analysis of Behavior*** became the first outlet devoted exclusively to publishing research findings in the field.

As the knowledge base expanded so did opportunities to test the efficacy and practicality of applying findings to more complex and more every day, socially significant settings. The ***Journal of Applied Behavior Analysis*** was launched in 1968 to report research on applications of Behaviour Analysis to a wide range of socially relevant behaviours. Both journals continue to report new findings in both the experimental and applied fields of Behaviour Analysis.

## **BEHAVIOUR ANALYSIS KNOWLEDGE BASE: JOURNALS**

Since the launch of journals reporting basic experimental and applied research in the 1950s and 1960s noted above and with the subsequent expansion of research into a range of areas of social behaviour (health, education, speech and language, counselling and therapy, etc.), a further 23 journals devoted to Behaviour Analysis theory, research and application are now available.

- Journal of the Experimental Analysis of Behavior
- Journal of Applied Behavior Analysis
- Journal of Organizational Behavior Management
- Journal of Behavioral Education
- Journal of the Analysis of Verbal Behavior
- Behavior Analysis Research and Practice
- The Behavior Analyst Today
- The Behavior Analyst
- The Journal of Speech-Language Pathology and Applied Behavior Analysis
- Journal of Early and Intensive Behavioral Interventions
- The International Journal of Behavioral Consultation and Therapy
- The Journal of Behavioral Assessment and Intervention in Children
- The Behavioral Development Bulletin
- The Journal of Precision Teaching and Standard Celeration
- Behavior and Social Issues
- Journal of Behavior Analysis of Sports, Health, Fitness, and Behavioral Medicine

- Journal of Behavior Analysis of Offender and Victim: Treatment and Prevention
- Behavioral Health and Medicine
- Behavior Therapy
- Behavior and Philosophy
- Perspectives on Behavior Science
- European Journal of Behaviour Analysis
- Mexican Journal of Behavior Analysis
- Brazilian Journal of Behavior Analysis
- Japanese Journal of Behavior Analysis

Behaviour-analytic research is also published in the following journals:

- American Journal of Psychology
- Journal of Chronic Diseases
- Journal of Experimental Child Psychology
- Current Developmental Disorders Reports
- School Psychology Review
- Psychiatric Research Reports
- Seminars in Speech and Language
- Journal of Autism and Developmental Disabilities
- Journal of Autism and Developmental Disorders
- Psychological Review
- Journal of Clinical and Adolescent Psychology
- Behaviour Research and Therapy
- Journal of Applied Research in Intellectual Disabilities

### **BEHAVIOUR ANALYSIS KNOWLEDGE BASE: CORE TEXTS**

In common with other science-based fields, there are many textbooks devoted to the overall theory, research and application of Behaviour Analysis and a considerable number relating to specific areas of application. Too many to include here, however, the following publications can be considered core texts used to support education and training in Behaviour Analysis.

- Bailey, J. S., Burch, M. R. (2016). *Ethics for Behavior Analysts* (3<sup>rd</sup> edition). New Jersey: Lawrence Erlbaum.
- Chance, P. (2013). *Learning and Behavior* (7<sup>th</sup> Edition). Belmont, CA: Wadsworth Publishing.
- Cooper, J. O., Heron, T. E., Heward, W. L. (2013). *Applied Behavior Analysis* (2<sup>nd</sup> Ed). New Jersey: Pearson.
- Fisher, W., Piazza, C., Roane, H. (eds). (2013). *Handbook of Applied Behavior Analysis*. NY: Guilford Press.
- Grant, L., Evans, A. (1997). *Principles of Behavior Analysis*. London: Harper Collins.
- Johnston, J.M., & Pennypacker, H.S. (2009). *Strategies and tactics of behavioral research* (3<sup>rd</sup> ed.). New York: Routledge.
- Lattal, K., Chase, P.N. (Eds) (2003). *Behavior Theory and Philosophy*. NY: Kluwer Academic/Plenum.

Malott, R. W., Trojan, A. (2007). Principles of Behavior. New Jersey: Pearson.

Meyer, G. R. Sulzer-Azaroff, B. Wallace, M. D. (2011). Behavior Analysis for Lasting Change. (2<sup>nd</sup> Edition). Sloan Educational Publishing.

Pierce, W. D., & Cheney, C. D. (2013). Behavior analysis and learning (5th ed.). New York, NY, US: Psychology Press

Schlinger, H.D., (1995). A Behavior Analytic View of Child Development. New York: Plenum Press.

Vargas, J. S. (2009). Behavior Analysis for Effective Teaching. Routledge.

## PROFESSIONAL ORGANISATIONS

As research findings continued to be shared and interest in the field expanded, a group of academics established the **Experimental Analysis of Behaviour Group** in the United Kingdom in 1963. The group hosted annual meetings to share findings from research conducted in the UK and further afield. The Experimental Analysis of Behaviour Group continues to host meetings in London (currently biennially) with participants working in a range of research and applied areas of the discipline and with worldwide representation.

Also in Europe, The **Norwegian Association for Behaviour Analysis** came into being in 1973. It continues to own the **European Journal of Behavior Analysis (EJOBA)** which is published by The Taylor & Francis group of academic publishers.

In 2000 the **European Association for Behaviour Analysis (EABA)** was established. This group sought to promote Behaviour Analysis across Europe, represent behaviour analysts across Europe, represent Europe in relations with other behaviour analysis organisations around the world and organise European conferences in Experimental and Applied Behaviour Analysis. EABA currently holds biennial meetings on alternate years to that of EABG so that Behaviour Analysts in Europe can attend at least one European based international conference in their field every year.

With the establishment of university degrees in Behaviour Analysis in the United States during the 1960s and 1970s (Arizona State University, Florida State University, University of Illinois, Indiana University, University of Kansas, University of Oregon, University of Southern Illinois, University of Washington, West Virginia University and Western Michigan University) leading to further advances in the knowledge base, the **Association for Behavior Analysis International (ABAI)** was founded in 1974 as a membership organisation to serve the needs of scholars and practitioners interested in the theory, science, application and teaching of Behaviour Analysis. It holds an annual convention in the USA and an international conference biennially. Currently, it has 7,500 members worldwide and affiliated chapter membership of more than 28,000. ABAI also supports the following 36 Special Interest Groups (SIGs) as well as affiliated chapters in the USA and worldwide (see below).

### **ABAI Special Interest Groups (SIGs)**

Autism  
Behaviour Analysis & Selectionist  
Robotics  
Behavior Analysis & Technology  
Behavior Analysis and the Arts  
Behavior Analysis for Sustainable  
Societies  
Behavior Analysis in Military and  
Veterans' Issues  
Behavior Analyst Online  
Behavioral Development  
Behavioral Gerontology  
Behavioral Medicine  
Behaviorists for Social Responsibility  
Clinical  
Crime, Delinquency, and Forensic  
Behavior Analysis  
Direct Instruction  
Dissemination of Behavior Analysis  
Ethics and Behavior Analysis  
Experimental Analysis of Human  
Behavior

Gambling  
Health, Sport and Fitness  
History of Behavior Analysis  
Multicultural SIG: Multicultural  
Alliance of Behavior Analysts  
Neuroscience  
Organizational Behavior Management  
Network  
Pediatric Feeding Disorders  
Positive Behavior Support  
Practitioner Issues in Behavior Analysis  
Rehabilitation & Independent Living  
Sexual Behavior: Research & Practice  
SIG Español  
Speech Pathology  
Standard Celeration Society  
Teaching Behavior Analysis  
Theoretical, Philosophical &  
Conceptual Issues  
Translational Research  
Verbal Behavior

### **ABAI Affiliated Chapters**

In addition ABAI supports chapters worldwide including but not exclusively:

ABA Australia  
ABA Colombia  
ABA España  
ABA Germany  
ABA India  
ABA of Brazil  
ABA of Italy (IESCUM)  
ABA Saudi Arabia  
ABA Switzerland  
ABA Turkey  
Alberta ABA  
Association Française—Les  
Professionnels de l'Analyse du  
Comportement  
Atlantic Provinces ABA  
Australian Association for Cognitive  
Behaviour Therapy  
Behaviour Analysis in Ireland  
Bermuda ABA  
British Columbia ABA

Central China ABA  
Chinese ABA  
Experimental Analysis of Behaviour  
Group UK and Europe  
Hong Kong ABA  
Icelandic ABA  
Israel ABA  
Japanese ABA  
Jordanian ABA  
Kenya ABA  
Korean ABA  
Korean Association of Child and  
Adolescent Behavior Therapy  
Lebanese ABA  
Manitoba ABA  
New Zealand ABA  
Norwegian ABA  
Ontario ABA  
Philippines ABA

Polish Association of Behavioral  
Therapy  
Polish Society for Behavioral  
Psychology  
Québec ABA

Sociedad Mexicana de Análisis de la  
Conducta  
Swedish ABA  
Taiwan ABA

## **CERTIFICATION & ACCREDITATION FOR PRACTISING BEHAVIOUR ANALYSTS**

As an accumulating research base has continued to advance and improve the field of Behaviour Analysis, organisations in both private and public sectors and society at large have become aware of the potential and capabilities of the field in a range of areas involving health and social care. Demand has grown significantly, with consumers and employers increasingly seeking out behaviour analytic services from trained professionals. In response to this demand, specialists in the field have addressed the challenge of how to identify and ensure that quality services – practical and ethical – are delivered to the increasing number of consumers requesting such services.

Much of the early demand for behaviour analytic services originated in the US and, not surprisingly, the first steps taken towards the establishment of Behaviour Analysis as a profession were US based. Based on a certification program developed by behaviour analysts in Florida, the Behavior Analyst Certification Board® (BACB®) was founded in 1998. Its goal was “to develop, promote, and implement a national and international certification program for behavior analyst practitioners” (2007, bacb.com). The BACB® has established and continues to define the knowledge and skills, standards, and criteria for the credentialing process that are designed to meet the “best practice” and ethical standards of the profession of Behaviour Analysis. Although originating in the US, demand for similar training and credentialing standards elsewhere has led to the BACB® being internationally recognised. Whilst regulatory and qualifications frameworks around the world vary and necessitate standards and credentialing systems that map onto local requirements, many training courses and credentialing systems map onto or are based on the standards set by the BACB®.

Details of the education, training and professional conduct standards required of practising behaviour analysts and the processes in place to maintain these can be found in the following documents available from the UK-SBA:

- Standards of Education, Training and Experience for Behaviour Analysis (2019)
- Code of Ethical and Professional Conduct (2019)

## **BEHAVIOUR ANALYSIS IN THE UK**

Behaviour Analysis has a well-established history of basic scientific research, applied science and service development in the UK. As noted above, the Experimental Analysis of Behaviour Group, founded in the UK in 1963, was the first Behaviour Analysis association to be founded worldwide. The group continues to provide a forum for the discussion of research and other professional activities of members, many of whom are also members of the Association for Behavior Analysis International (ABAI), of which the group is an affiliated chapter. The EABG aims to promote closer collaboration between behaviour analysts working in different universities throughout Europe and has been a consistent venue for European behaviour analysts to meet. The group is primarily UK based, but draws on an informal membership across Europe and further afield. The EABG biennial conference has become an important milestone in the Behaviour Analysis calendar, as a forum for discussion and dissemination of new developments. Research interests of the EABG members include: human and animal learning, analysis of verbal behaviour, Behaviour Analysis in education (e.g., Direct Instruction, Precision Teaching), clinical and remedial therapy, information technology, Early Autism Intervention, and staff productivity and operational behaviour management (OBM).

It was not until the 1990s however that consumer demand for behaviourally-based interventions increased – specifically in relation to the education and support of children with autism. The first home-based ABA programme in England was set up in 1994. In 1997 the first ABA schools for children with autism, TreeHouse and Jigsaw Schools, were established. At that time there was no training in the UK in ABA and home programmes, schools and provider organisations relied on specialist support from outside of the UK. In 2001 a group of Behaviour Analysts based in the UK and Ireland set up the ABA Lecturers' Cooperative. In association with the charity behind TreeHouse School, they developed the first BACB® approved course sequence in the UK. As it was not University based (one of the requirements of the BACB®) it was approved through the State of Florida University. It formed the basis of the development of Behaviour Analysis training across Europe, the first of which was the MSc in ABA at Bangor University, Wales, in 2003. Today there are 5 BACB approved courses in the UK from which over 900 students have graduated with an MSc in ABA, with an increasing trend in applications year on year.

It was noted above that expertise for behaviorally based interventions for children with autism in the UK initially came from elsewhere. In 2000 there were no European Board Certified Behaviour Analysts (BCBA®) or Board Certified Assistant Behaviour Analysts (BCaBA®) certificants. In 2001 the first BACB® was awarded in the UK. There are now (March 2019) over 340 BCBA®/BCaBA®s across the UK and 50 Registered Behaviour Technicians®. Whilst we estimate the number of practitioners working in the field to be significantly higher, this does give an indication of a growing field and an associated level of risk around unregulated practice.

The UK Society for Behaviour Analysis (UK-SBA) seeks to contribute to public wellbeing both through the application of Behaviour Analysis and by ensuring that

behaviour analysts practice safely, competently and ethically.

Over the last decade there has been an increasing demand in the UK for professionals in the field of Behaviour Analysis, particularly in providing support to individuals with learning disabilities and challenging behaviour, as well as providing early intervention and on-going educational support for individuals with autism. Behaviour analytic interventions are also increasingly recommended as evidence-based treatments within the UK. For example, NICE guidelines for the management of adults on the autism spectrum recommend the use of functional analysis (a behaviour analytic pre-treatment assessment to identify factors contributing to challenging behaviour and behavioural interventions to treat those behaviours); NICE/SCIE guidance on parent training recommends behavioural parent training approaches; NICE guidelines on treatment of personality disorder and self-harm recommend Dialectical Behaviour Therapy, which is a cognitive behaviour therapy approach with strong roots in Behaviour Analysis.

With the number of trained and professionally credentialed Behaviour Analysts in the UK continuing to grow, the UK-SBA has identified risks to the public of unregulated practice and, as a membership organisation, has created the UK-SBA Register as a way of helping members of the public find practitioners and check qualifications, certification and experience of any individual they are considering employing or working with.