

Moving Forward: Positive Behavior Support and Applied Behavior Analysis

Matt Tincani

University of Nevada, Las Vegas

Correspondence concerning this manuscript should be directed to: Matt Tincani,
Department of Special Education, 4505 Maryland Parkway, Box 453014, Las Vegas, NV,
89154-3014. Email: tincanim@unlv.nevada.edu

Abstract

A controversy has emerged about the relationship between positive behavior support and applied behavior analysis. Some behavior analysts suggest that positive behavior support and applied behavior analysis are the same (e.g., Carr & Sidener, 2002). Others argue that positive behavior support is harmful to applied behavior analysis (e.g., Johnston, Foxx, Jacobson, Green, & Mulick, 2006). Further, some proponents of positive behavior support describe it as a new science, evolved from yet different than applied behavior analysis (Carr et al., 2002). These varying positions have accompanied confusion among behavior analysts about positive behavior support and its impact on the field. This article attempts to clarify this confusion by presenting one perspective on positive behavior support and its relationship to applied behavior analysis.

Moving Forward: Positive Behavior Support and Applied Behavior Analysis

Positive behavior support (PBS) developed in the 1980s and 1990s as an approach to enhance quality of life and minimize challenging behavior (Carr et al., 2002). Founded in 1999, *Journal of Positive Behavior Interventions* publishes both conceptual and empirical articles on PBS using a variety of methodologies (e.g, Baker-Ericzén, Stahmer, & Burns, 2007; Harvey, Baker, Horner, & Blackford, 2003; Vaughn, White, Johnston, & Dunlap, 2005), though single-subject designs are very common. One feature of JPBI that distinguishes it from other behaviorally oriented journals, including *Journal of Applied Behavior Analysis*, is that the vast majority of published studies are conducted in natural settings rather than in clinical settings. This is not to suggest that research in laboratories or clinical settings is not important or valued; rather, it reflects an emphasis within PBS on external validity and contextual fit of interventions.

As noted by Johnston et al. (2006), PBS has been associated with a great deal of federal funding and has been written into policy at the federal level. For example, the Individuals with Disabilities Education Improvement Act of 2004 maintains provisions for “positive behavioral interventions and supports” for children with disabilities who display problem behavior. Some states have also adopted statutes prescribing PBS for persons with disabilities. Further, the Office of Special Education Programs (OSEP) of the US Department of Education has dedicated considerable funding to support PBS intervention, training, and research. Importantly, these developments did not come about as a result of campaigning by researchers within PBS, but rather because consumers (e.g., educators and parents) informed policy makers that PBS was having an important and durable impact on the lives of children.

The PBS Controversy

In recent years, a debate has evolved about positive behavior support and its relation to applied behavior analysis. Origins of the debate may be traced to the position that PBS is a new science, evolved from, yet different than, applied behavior analysis (ABA) (Carr

et al., 2002). Although advocates of this position acknowledge the central influence of ABA in the heritage of PBS (Dunlap, 2006), they argue that the combined elements of PBS comprise a fundamentally new science to reduce challenging behavior. In response, some behavior analysts have countered that PBS is not different from ABA (Carr & Sidener, 2002). Proponents of this view posit that the procedures of PBS are largely, if not entirely, drawn from ABA and that attempts to conceptualize PBS as a new science have potentially harmful ramifications for the field of ABA. Furthering this view, other behavior analysts have described PBS as a direct threat to ABA (Johnston et al., 2006; Mulick & Butler, 2005). Accordingly, they imply that the successful dissemination of PBS as a new science will result in consumers' rejection of ABA. Moreover, because many PBS practitioners lack formal training in ABA, they argue, PBS interventions may result in deleterious effects for consumers.

Diverging views have sparked debate among behavior analysts about PBS and its relationship to ABA. Although little direct evidence has been offered to support the claim that PBS is harmful to ABA, it is not unreasonable for behavior analysts to have concerns given these issues. The purpose of this paper is to allay these concerns by providing one perspective on the relationship between PBS and ABA. Unique contributions of PBS to the field of ABA are offered in conjunction with suggestions of how practitioners of PBS and ABA may work together for mutual benefit.

Are PBS and ABA Different?

PBS is an application of behavior analysis which focuses on the core components of PBS identified in the literature (Anderson & Freeman, 2000; Anderson & Kincaid, 2005; Carr et al., 2002; Horner et al., 1990). These are (a) achievement of comprehensive lifestyle change and improvement of quality of life across the lifespan; (b) incorporation of person-centered values and stakeholder input; (c) ecological and social validity of interventions; (d) a focus on prevention; (e) systems change; (f) functional assessment of problem behavior; (e) multi-component intervention; and (f) empirical validation of behavior change

procedures. None of these components are incompatible or inconsistent with ABA. Rather, PBS is a unique application of ABA which focuses on them. From this perspective, PBS is not fundamentally different than other specialized ABA approaches, such as precision teaching (Binder, 1996) or organizational behavior management (Culig, Dickinson, McGee, & Austin, 2005.). Similarly, practitioners of PBS apply basic behavioral principals to solve human problems by producing meaningful and durable outcomes.

Research in ABA addresses a huge variety of questions, only some of which fit within the rubric of PBS. For example, some research in ABA addresses questions about treatment utility and generality across time and situations (e.g., Pierce & Schreibman, 1995); this research might fit within the PBS framework. Other research addresses more theoretical questions that have important applied implications, such as the principles underlying the efficacy of an intervention (e.g., Goh, Iwata, & DeLeon, 2000). This research does not fit within PBS because it does not immediately address questions about efficacy of methods in real world settings.

Some proponents have characterized PBS as a new science influenced by multiple theoretical perspectives (Carr et al., 2002). Cross-cultural, biological, and community psychology are valuable in that they enhance the effectiveness and durability of PBS interventions (Carr, 2007); however, a survey of the PBS literature suggests a far greater influence of behavior analysis than other theoretical perspectives (Crone & Horner, 2003; Koegel, Koegel, & Dunlap, 1996; Lucyshyn, Dunlap, & Albin, 2002). It is thus important to acknowledge that PBS has and will continue to rely upon behavior analysis for its scientific foundation. Accordingly, experts who practice PBS need high quality training in behavioral principles and application of those principles to human problems.

While the need for expert PBS practitioners to be trained in behavior analysis is apparent, many advocates of PBS are not behavior analysts. Administrators, teachers, early interventionists, parents, and other non-experts use principles of behavior in their everyday interactions with consumers, but are not familiar with the conceptual and empirical basis of

behavior analysis. Indeed, successful application of PBS within service delivery systems, as well as community and family contexts, requires active collaboration of non-experts (Anderson & Kincaid, 2005; Vaughn et al., 2005). PBS provides a framework within which practitioners and parents can become familiar with evidence-based practices that are directly and immediately relevant to their everyday work without the necessity of expert training in behavior analysis.

Some applied behavior analysts may practice in the manner described and call it ABA; others may call it PBS. This is fine. It is more important to focus on developing empirically-driven interventions that produce meaningful outcomes than to debate labels, particularly when such debate has little demonstrable benefit on the people applied behavior analysts serve.

Is PBS Harmful?

Some behavior analysts have argued that PBS is harmful to ABA. One premise of this argument is that PBS is “unscientific” because PBS interventions have been evaluated with non-rigorous designs such as anecdotal observations (Johnston et al., 2006). It is important to recognize that PBS is a developing approach. Unlike many research studies published in the *Journal of Applied Behavior Analysis* and other behaviorally oriented journals, PBS interventions tend to focus on sustained behavior change within naturalistic settings, including the natural social systems in which individuals behave (e.g., Kern et al., 2006). Therefore, some PBS studies do not readily lend themselves to highly controlled, single-subject designs executed in clinical settings. In some cases, quasi-experimental, descriptive, or group designs may prove more adequate (e.g., Scott et al., 2005). This does not diminish the importance of empirically validating behavior change strategies within naturalistic settings; rather, it presents a challenge for PBS researchers to develop and implement rigorous designs appropriate for experimental variables in naturalistic settings.

Another concern raised by critics is that the “non-technical” nature of PBS necessarily diminishes the effectiveness of intervention (Johnston et al., 2006). Specifically, it is argued,

practitioners who lack the “full array of basic competencies in ABA” (p. 56) cannot implement effective interventions. It is important to acknowledge that expert practitioners of PBS will need rigorous training in basic and applied analyses of behavior. However, it seems unreasonable and unrealistic to presume that all intervention agents should have expert ABA training. By this logic, it would be necessary for every school administrator, teacher, and parent to be an ABA expert. There is ample evidence to support the role of non-experts, such as parents, as effective intervention agents given appropriate training and supervision (Lucyshyn et al., 2002). The hard line position that all PBS interventionists should be ABA experts risks alienating large numbers of potential consumers who lack such training or the capacity to receive it. Alternatively, PBS provides a framework for those who lack technical training to conduct effective interventions.

Critics have also expressed the overarching concern that the success of PBS threatens the dissemination of ABA (Johnston et al., 2006), though little more than anecdotal evidence is offered to support this claim. It is interesting to note that while critics have characterized ABA and PBS as essentially the same (Carr and Sidener, 2002), they assert that practitioners who embrace PBS are likely to eschew ABA. Given the procedural and conceptual commonalities between approaches, it seems more likely that practitioners who embrace PBS will also embrace ABA. In this light, the success of PBS presents an opportunity for, not a threat to, dissemination of ABA.

Almost 80 years ago, Skinner (1938) asserted the concept of the operant, distinguishing between the topography and function of operant behavior. Critics of PBS should be mindful of Skinner’s important distinction. PBS, with its differing terminology and strategies, may not always look like ABA. Nonetheless, PBS is an effective approach to minimize challenging behavior through application of behavioral principles. Thus, PBS should be evaluated according to its impact on consumers and potential to enhance behavior analytic service delivery. If judged accordingly, ABA practitioners may find that PBS is an excellent compliment to their work.

In sum, PBS is not a threat to ABA or consumers of effective approaches. Rather, given the apparent commonalities among the approaches, the success of PBS is an opportunity for applied behavior analysts and advocates of PBS to work together for common benefit. Indeed, the purpose for establishing the Positive Behavior Support Special Interest Group (PBS SIG) of the Association for Behavior Analysis is to provide behavior analysts and advocates of PBS a forum for mutual collaboration (see www.pbsaba.org).

What Does PBS Contribute to ABA?

Behavior analysts may still wonder what PBS has to offer ABA. There are at least four significant ways that PBS enhances ABA. They are (a) a focus on prevention; (b) a focus on systems and scaling-up; (c) a focus on contextual fit; and (d) providing a successful model for dissemination. Each contribution is described below.

A Focus on Prevention

ABA has developed an impressive technology of positive, function-based interventions (Cooper, Heron, & Heward, 2007). Much of this literature has focused on strategies to reduce serious behavior problems, with less emphasis on preventing challenging behavior. Alternatively, investigators working within the PBS framework have developed a comprehensive approach to prevent challenging behavior, school-wide positive behavior support (SWPBS) (Anderson & Kincaid, 2005; Sugai & Horner, 2002). Borrowing from the disease prevention model, SWPBS incorporates primary prevention through universal interventions, secondary prevention through targeted interventions, and tertiary prevention through function-based interventions. The success of SWPBS highlights the need for comprehensive prevention models within other service delivery systems, such as community mental health services (Reinke, Herman, & Tucker, 2006). Prevention strategies based in SWPBS provide an excellent compliment to other ABA approaches, and underscore the need for additional research focusing on prevention of challenging behavior.

A Focus on Systems and Scaling-Up

Behavior analysts have lamented resistance to behavioral approaches within social and educational service systems (Axelrod, 1996; Heward, 2003). Unfortunately, little behavior analytic research has focused on strategies for embedding effective interventions within such systems. In contrast, systems change is a core feature of PBS (Carr et al., 2002). Accordingly, PBS researchers have sought to change social systems to scale-up effective behavioral interventions. SWPBS provides an excellent example of system-wide behavior change (Sugai & Horner, 2002); other PBS researchers have examined strategies for extending PBS to respite care provider systems (Openden, Symon, Koegel, & Koegel, 2006) and state-wide service delivery systems (Freeman et al., 2005). The PBS model provides a framework for behavior analysts to embed research-based interventions within a variety of educational and social services systems.

A Focus on Contextual Fit

Research published in *Journal of Positive Behavior Interventions* reflects an emphasis on behavior change within the natural environment. Contextual fit describes the compatibility of an intervention with variables in the natural environment (Albin, Luchyshyn, Horner, & Flannery, 1996). These include (a) characteristics of the person for whom the plan is designed; (b) variables related to the people who will implement the plan; and (c) features of environments and systems within which the plan will be implemented (p. 82). While ABA has developed an impressive technology of behavior intervention, natural setting variables have been neglected in many intervention studies (Snell, Vorhees, & Chen, 2005). It is critical to develop a technology of behavior that is compatible with natural contexts. Thus, PBS researchers have focused on interventions in natural settings, incorporating parents, teachers, and other non-experts as intervention agents (Dunlap, Ester, Langhans, & Fox, 2006; Hieneman, Dunlap, & Kincaid, 2005). This is not to say that research in clinic or laboratory settings is not important or valued, it simply reflects a shift in emphasis to promote durability of interventions within natural settings.

A Successful Model for Dissemination

Finally, PBS has been written into state and federal laws and has been associated with considerable funding at the federal level. Although some critics have suggested that the success of PBS threatens ABA, it is more fruitful to examine what has made PBS successful and attempt to replicate those components in other areas of ABA. For example, legislative advocacy among consumers of PBS resulted in the inclusion of PBS within federal laws. Behavior analysts might encourage similar legislative advocacy and lobbying to promote other behavioral approaches within state and federal statutes.

Moving Forward

The current discussion about ABA and PBS may positively impact the field of ABA in several ways. For example, the 2006 and 2007 Association for Behavior Analysis conferences included excellent presentations on dissemination of behavior analysis by presenters well known to the field. This recent interest may reflect the recent PBS/ABA controversy, which has focused on the need for behavior analysts to more effectively communicate and disseminate ABA to consumers (Johnston et al., 2005). While the notion that applied behavior analysts should more effectively communicate their interventions is not new (Rolider, Van Houten, and Axelrod, 1998), the current debate may encourage more empirically driven strategies for disseminating and scaling-up ABA interventions.

The debate may also encourage behavior analysts to focus on systems interventions, which have been neglected within much of contemporary ABA, but are a core component of PBS (Carr et al., 2002). From a behavior analytic perspective, systems are shared contingencies of reinforcement for behavior of consumers, including parents and educators, who implement interventions. Systems are the focus of school-wide PBS, in which the whole-school is regarded as the unit of analysis (Sugai & Horner, 2002). Prior to intervening, PBS practitioners seek to understand the unique outcomes “valued” by professionals in order to assist them in producing those outcomes. Developing interventions that address the values of consumers is not tantamount to watering down interventions; to the contrary, systematic

assessment of consumer values is necessary for effective interventions to be embedded and sustained in real world settings.

Finally, the success of PBS is an opportunity for applied behavior analysts to lobby in favor of their services. Legislative advocacy of PBS proponents resulted in federal and state statutes mandating functional behavioral assessments for children with disabilities who display challenging behavior. Consequently, school districts have sought and, in some cases, mandated services of Board Certified Behavior Analysts (Shook & Neisworth, 2005) to conduct functional behavioral assessments. Collaborative legislative efforts among applied behavior analysts and proponents of PBS could result in additional opportunities to advocate for services of well qualified behavior analysts who practice PBS at local, state, and federal levels.

Advocates have acknowledged the central influence of ABA in the development of PBS (Dunlap, 2006). The field of ABA may continue to inform PBS in critical ways. For example, although PBS has enjoyed relatively widespread acceptance and funding, recognized national standards would be beneficial. PBS practitioners should look to the Behavior Analyst Certification process for ways to standardize and ensure quality of PBS training and implementation. Given the considerable overlap among ABA and PBS practitioner skills, it would seem critical for both groups to maintain an open dialog on training and standardization issues.

References

- Anderson, C. M., & Freeman, K. A. (2000). Positive behavior support: Expanding the application of applied behavior analysis. *The Behavior Analyst, 23*, 85-94
- Anderson, C. M., & Kincaid, D. (2005). Applying behavior analysis to school violence and discipline problems: Schoolwide positive behavior support. *The Behavior Analyst, 28*, 49-63.
- Axelrod, S. (1996). What's wrong with behavior analysis? *Journal of Behavioral Education, 6*, 247-256.
- Baker-Ericzén, M. J., Stahmer, A. C., & Burns, A. (2007). Child demographics associated with outcomes in a community-based pivotal response training program. *Journal of Positive Behavior Interventions, 9*, 52-60.
- Binder, C. (1996). Behavioral fluency: Evolution of a new paradigm. *The Behavior Analyst, 19*, 163-197.
- Carr, E. G. (2007). The expanding vision of positive behavior support: Research perspectives on happiness, helpfulness, hopefulness. *Journal of Positive Behavior Interventions, 9*, 3-14.
- Carr, E. G., Dunlap, G., Horner, H. R., Koegel, R. L., Turnbull, A. P., Sailor, W., et al. (2002). Positive behavior support: Evolution of an applied science. *Journal of Positive Behavior Interventions, 20*, 4-16.
- Carr, J. E., & Sidener, T. M. (2002). On the relation between applied behavior analysis and positive behavioral support. *The Behavior Analyst, 25*, 245-253.
- Cooper, J. O., Heron, T. E., & Heward, W. L. (2007). *Applied Behavior Analysis*. (2nd edition). Upper Saddle River, New Jersey: Prentice Hall.
- Crone, D. A. & Horner, R. H. (2003). *Building positive behavior support systems in schools: Functional behavioral assessment*. New York: The Guilford Press.
- Culig, K. M., Dickinson, A. M., McGee, H. M., & Austin, J. (2005). An objective comparison of applied behavior analysis and organizational behavior management research. *Journal of Organizational Behavior Management, 25*, 35-72.
- Dunlap, G. (2006). The applied behavior analytic heritage of PBS: A dynamic model of action-oriented research. *Journal of Positive Behavior Interventions, 8*, 58-60.

- Dunlap, G., Ester, T., Langhans, S., & Fox, L. (2006). Functional communication training with toddlers in home environments. *Journal of Early Intervention, 8*, 81-96.
- Freeman, R., Smith, C., Zarcone, J., Kimbrough, P., Tieghi-Benet, M., et al. (2005). Building a statewide plan for embedding positive behavior support in human service organizations. *Journal of Positive Behavior Interventions, 7*, 109-119.
- Goh, H. L., Iwata, B. A., & DeLeon, I. G. (2000). Competition between noncontingent and contingent reinforcement schedules during response acquisition. *Journal of Applied Behavior Analysis, 33*, 195-205.
- Harvey, M. T., Baker, D. J., Horner, R. H., & Blackford, J. U. (2003). A brief report on the prevalence of sleep problems in individuals with mental retardation living in the community. *Journal of Positive Behavior Interventions, 5*, 195-200.
- Heward, W. L. (2003). Ten faulty notions about teaching and learning that hinder the effectiveness of special education. *Journal of Special Education, 36*, 186-205.
- Hieneman, M., Dunlap, G., & Kincaid, D. (2005). Positive behavior support strategies for students in general education settings. *Psychology in the Schools, 42*, 779-794.
- Horner, R. H., Dunlap, G., Carr, E. G., Sailor, W., Anderson J., Albin, R. W., et al. (1990). Toward a technology of "nonaversive" behavioral support. *Journal of the Association for Persons with Severe Handicaps, 15*, 125-132.
- Individuals With Disabilities Education Improvement Act of 2004, 20 U.S.C. § 1400 *et seq.* (2004).
- Johnston, J. M., Foxx, R. M., Jacobson, J. W., Green, G., and Mulick, J. A. (2006). Positive behavior support and applied behavior analysis. *The Behavior Analyst, 29*, 51-74.
- Kern, L., Gallagher, P., Starosta, K., Hickman, W., & George, M. (2006). Longitudinal outcomes of functional behavioral assessment-based intervention. *Journal of Positive Behavior Interventions, 8*, 67-78.

- Koegel, L. K., Koegel, R. L., & Dunlap, G. (Eds.) (1996). *Positive behavioral support: Including people with difficult behavior in the community*. Baltimore: Paul H. Brookes Publishing.
- Lucyshyn, J., Dunlap, G., & Albin, R.W. (Eds.) (2002). *Families and positive behavior support: Addressing problem behaviors in family contexts*. Baltimore, MD: Paul H. Brookes.
- Mulick, J. A., & Butter, E. (2005). Positive behavior support: A paternalistic Utopian delusion. In J. W. Jacobson, R. M. Foxx, & J. A. Mulick (Eds.), *Controversial therapies for developmental disabilities: Fads, fashion, and science in professional practice* (pp. 385-404). Mahwah, NJ: Erlbaum.
- Openden, D., Symon, J. B., Koegel, L. Kern, & Koegel, R. L. (2006). Developing a student respite provider system for children with autism. *Journal of Positive Behavior Interventions, 8*, 119-123.
- Pierce, K. & Schreibman, L. (1995). Increasing complex social behaviors in children with autism: effects of peer-implemented pivotal response training. *Journal of Applied Behavior Analysis, 28*, 285-295.
- Reinke, W. M., Herman, K. C., Tucker, C. M. (2006). Building and sustaining communities that prevent mental disorders: Lessons from the field of special education. *Psychology in the Schools, 43*, 313-329.
- Rolider, A., Axelrod, S. & Van Houten, R. (1998). Don't speak behaviorism to me: How to clearly and effectively communicate behavioral interventions to the general public. *Child and Family Behavior Therapy, 20*, 39-56.
- Scott, T. M., McIntyre, J., Liaupsin, C., Nelson, C. M., Conroy, M., & Payne, L. (2005). An examination of the relation between functional behavior assessment and selected intervention strategies with school-based teams. *Journal of Positive Behavior Interventions, 7*, 205-215
- Shook, G. L. & Neisworth, J. T. (2005). Ensuring appropriate qualifications for applied behavior analyst professionals: The Behavior Analyst Certification Board. *Exceptionality, 13*, 3-10.
- Snell, M. E., Voorhees, M. D., & Chen, L. Y. (2005). Team involvement in assessment-based interventions with problem behavior: 1997–2002. *Journal of Positive Behavior Interventions, 7*, 140-152.
- Sugai, G., & Horner, R. H. (2002). The evolution of discipline practices: School-wide positive behavior supports. *Child and Family Behavior Therapy, 24*, 23-50.
- Skinner, B. F. (1938). *The behavior of organisms*. New York: Appleton-Century-Crofts.

Sugai, G., & Horner, R. (2002). The evolution of discipline practices: School-wide positive behavior supports. *Child and Family Behavior Therapy, 24*, 23-50.

Vaughn, B. J., White, R., Johnston, S., & Dunlap, G. (2005). Positive behavior support as a family-centered endeavor. *Journal of Positive Behavior Interventions, 7*, 55 – 58.