Case Studies in Context: A Review of *Triumphs in Early Autism Treatment*, Edited by Ennio Cipani

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ABSTRACT

Triumphs in Early Autism Treatment, edited by Ennio Cipani, describes seven “best-outcome” case studies of early and intensive behavioral intervention (EIBI) for children with autism, demonstrating the challenges that occur during various stages of treatment. The children whose stories are told in the book achieved normal functioning and lost their diagnosis of autism. Although outcomes are not this dramatic for all children, the book nevertheless serves a useful purpose in drawing attention to the favorable outcomes that some children may reach through EIBI. The book also contains accessible chapters describing the history of behavior analytic interventions for autism, and an overview of the published outcome research that forms part of the evidence base for EIBI.

Keywords: autism, autism spectrum disorders, case studies, early and intensive behavioral intervention, integrative science, outcome studies

Early and intensive behavioral inter-vention (EIBI) has been supported in outcome studies as the best available treatment option for young children with autism (Eikeseth, 2009). EIBI has its roots in applied behavior analysis (ABA). The scope and nature of ABA have been influentially defined (Baer, Wolf, & Risley, 1968), and its practice and procedures have been comprehensively described (e.g., Cooper, Heron, & Heward, 2007). Several useful treatment manuals, aimed at both parents and professionals, have described curricular design, data collection strategies, instructional techniques, behavior-management procedures, and other issues relevant to the successful implementation of individualized behavioral interventions for children with autism (e.g., Leaf & McEachin, 1999; Lovaas, 2003; Maurice, Green, & Foxx, 2001; Maurice, Green, & Luce, 1996; Sundberg & Partington, 1998). Although these resources, along with research articles and textbooks on ABA, have been important in establishing and maintaining the technical and conceptual basis of EIBI, it is also apparent that they are not primarily written

for the interested layperson. There is little doubt that dissemination is better achieved through a more engaging narrative than can usually be offered in technical journal articles, textbooks, and treatment manuals. One outstanding example of such narrative is Catherine Maurice's memoir, *Let Me Hear Your Voice*, in which the author described the great gains her two children, both diagnosed with autism, made through EIBI. Maurice's book has undoubtedly been one of the most influential texts describing behavioral interventions, introducing many families to the potential that EIBI may hold for their children.

Triumphs in Early Autism Treatment, edited by Ennio Cipani, may similarly serve as an introduction to the interested layperson (e.g., parents of children with autism). In addition to narratives of successful cases of early intervention, the book also includes accessible discussion on more technical topics such as intervention techniques to establish joint attention, the history and evolution of early intervention for autism, and overview of outcome studies that have evaluated the effectiveness of EIBI. The book may thus function both to provide interesting and

accessible case studies of “best-outcome” treatment, and as a gateway to the science behind EIBI. The relative brevity of the book (approximately 200 pages) and the engaging and accessible style in which it is written, increase the probability that this goal will be achieved.

The book is divided into two sections with a total of eight chapters. The first section contains seven best-outcome case studies, and the second section gives an overview of the history of applied behavior analysis in autism treatment. Also included are four appendices, which add information on specific topics (e.g., joint attention and outcome studies).

Case Studies of EIBI Treatment

The bulk of the book is contained in the first section, which is comprised of seven best-outcome case studies, written by the providers who were responsible for designing and overseeing treatment in each case. This section of the book includes six chapters, three of which are authored by Audrey Gifford, one by Rebecca P. F. MacDonald, one by Glen O. Sallows and Tamlynn D. Graupner, and one by Justin Leaf, Ronald Leaf, and Jamison Dayharsh Leaf. In one case, the

treatment provider was also a parent of the child in question, providing an additional perspective on the child's progress through treatment. Cipani defines *best-outcome cases* as children whose autism spectrum diagnosis was removed following treatment and were indistinguishable from their same-age, typically developing peers (preface, p. xv). This definition is borrowed from Lovaas' classic 1987 study, in which 9 of the 19 children in the intensive treatment group achieved normal functioning thus defined. According to the editor, the purpose of telling the stories of such best-outcome cases is to relate the lengthy, complex, and effortful process involved in reaching such an optimal outcome. As described in each case study, the progress made by the children did not come easy, involving many treatment hours per week over the course of many years, a multitude of sacrifices by family members, constant data-based

research articles. Case studies can also serve as starting points for more systematic research on clinically interesting phenomena. One such area that is highlighted in the book (in a chapter written by Rebecca MacDonald, as well as in two appendices) is joint attention, a set of social skills that is characteristically deficient in children with autism spectrum disorders. While behavior analytic research focusing on joint attention has begun to appear, much remains to be done. MacDonald's chapter helpfully highlights many issues that may be relevant to the acquisition of joint attention, while outlining not only procedures that may be employed by practitioners, but also areas that might benefit from more research.

Despite the potential benefits and accessibility of the case-study format, one may reasonably question the appropriateness of presenting only best-outcome cases. All research studies that

have evaluated the outcome of EIBI have shown that less than half of the children treated reached best-outcome as described in Cipani's book. Of course, these studies have also shown that the majority of the treated children showed meaningful gains – although they may have fallen short of the best-outcome status. It is therefore clear that the book does not provide a balanced or representative sample of the children treated with EIBI. The title provides a hint that this was not the purpose of the book, and the editor makes quite clear his intention of presenting only best-outcome cases. According to Cipani,

The strategy of mixing accessible anecdotal information with scientific information is one of the strengths of the book.

evaluation and reevaluation of treatment goals and procedures, and difficult bumps in the road that required creative problem solving. These themes will be familiar to families of children that are involved in or have been through EIBI, as well as treatment providers and therapists. One of the main strengths of the book is the description of challenges – such as reemergence of previously treated problem behavior – that must be overcome during the course of treatment. These case studies serve as reminders that even when outcome of treatment is optimal, difficulties must be overcome. Indeed, it is likely that optimal outcome is partially determined by the efficiency with which such unexpected difficulties are handled – that is, the ability of treatment providers to evaluate the course of treatment, and change goals and procedures accordingly, may play a part in achieving best-outcomes.

The Value of Describing “Best-Outcome” Case Studies

There is little doubt of the value of studying successful cases with the goal of illuminating issues potentially related to best-outcome. Students of the scientific approach will recognize that while evidence from case studies is not sufficient to establish the empirical basis for any treatment approach, such studies may nevertheless complement more rigorous research by providing a fuller clinical picture than is possible in typical

a book describing best-outcome cases is needed in order to “... not only document the growth achieved by children being treated but also provide some ‘insight’ into how certain learning and behavioral problems presented by children with autism are handled effectively” (p. xvi). Nevertheless, one might argue that more modest success stories (i.e., children who benefited significantly but remain diagnosed with ASD) would also provide useful insight. Regardless, the reader should keep in mind that the outcomes of EIBI fall on a continuum, only part of which is represented in the book. (It should be noted that this point is made quite clearly at least three times in the book; first in the preface, then in Rebecca McDonald's chapter, and finally in appendix D, which describes outcome studies.)

That being said, the book serves the purpose of illustrating the potential power of EIBI in (sometimes) achieving outcomes previously thought impossible.

An Historical View of ABA in Autism Treatment

The book's second section contains two chapters that describe the history of applied behavior analytic treatment for autism and the development of what today is called early and intensive behavioral intervention (EIBI). The first of these chapters is written by the editor, while the second is coauthored by Tristram Smith, Daniel Mruzek, and Robert Peyton. These

chapters serve as an introduction to the empirical evidence supporting the effectiveness of EIBI, as well as a narrative of the historical background and development of the application of behavior analysis with children with autism. The background and context that these authors provide may serve to increase the readability of this section for the layperson; the chapters read less as review papers or technical journal articles and more like history. As is the case with other parts of the book, this section is straightforward and jargon-free. The interested, non-expert reader, his or her interest having been evoked by the case stories, may find these chapters to be an accessible gateway to the science documenting the effectiveness of EIBI. An appendix, outlining in more detail the evidence for EIBI from outcome studies, provides more information, while taking the reader one step closer to more technical information.

The emphasis on outcome studies that have helped establish the evidence base for EIBI is certainly appropriate. However, future books of this sort might also include a fuller treatment of the importance of single-case research in establishing the scientific foundation of EIBI. The value of single-case research designs is often less intuitively apparent to non-experts, in particular those that have received preliminary training (e.g., introductory college courses) in research methods. However, the science of applied behavior analysis, which forms the backbone of EIBI, would not exist without single-case research; indeed, by its very nature behavior analysis deals with the behavior of individuals, which is uniquely captured by the single-case experimental designs. A user-friendly text introducing the importance of single-case research to non-experts interested in the treatment of autism would be a useful contribution to the literature.

Increasing Accessibility Through Integrative Science

As mentioned above, the strategy of mixing accessible anecdotal information with scientific information is one of the strengths of the book. This strategy increases accessibility and readability, while respecting the importance of scientific research in establishing the effectiveness of the approach. It is interesting to consider *Triumphs in Early Autism Treatment* in light of the approach that science writer Michael Shermer (2007) has termed *integrative science*. According to Shermer, integrative science is "...a process that blends data, theory, and narrative." The idea is to increase the accessibility of important scientific contributions by presenting them in a story-telling format. Examples of such efforts from other scientific fields include Jared Diamond's *Guns, Germs, and Steel*, Richard Dawkins' *The Blind Watchmaker*, David Moore's *The Dependent Gene*, and Brian Greene's *The Elegant Universe*. So far, integrative contributions of this sort have been lacking in the behavior analytic literature (with a few exceptions, notably Karen Pryor's *Don't Shoot the Dog*). *Triumphs in Early Autism*

Treatment represents a step in the direction of providing such treatment, and might serve as an appropriate introduction to EIBI for parents, teachers, administrators, and legislators who have vested interest in early autism treatment, but are not knowledgeable about behavior analysis. Future books might take the process of integrative science one step further by including research stories from behavior analytic single-case studies - through which many of the procedures used in EIBI have been developed - into accessible narratives of the challenges and triumphs experienced through behavioral interventions.

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