

# Controversial Therapies for Autism and Intellectual Disabilities

Fad, Fashion, and Science in Professional Practice



Richard M. Foxx and James A. Mulick

ROUTLEDGE

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# Controversial Therapies for Autism and Intellectual Disabilities

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One of the largest and most complex human services systems in history has evolved to address the needs of people with autism and intellectual disabilities, yet important questions remain for many professionals, administrators, and parents. What approaches to early intervention, education, treatment, therapy, and remediation really help those with autism and other intellectual disabilities improve their functioning and adaptation? Alternatively, what approaches represent wastes of time, effort, and resources?

*Controversial Therapies for Autism and Intellectual Disabilities*, Second Edition, brings together leading behavioral scientists and practitioners to shed much-needed light on the major controversies surrounding these questions. Expert authors review the origins, perpetuation, and resistance to scrutiny of questionable practices and offer a clear rationale for appraising the quality of various services.

The second edition of *Controversial Therapies for Autism and Intellectual Disabilities* has been fully revised and updated and includes entirely new chapters on psychology fads, why applied behavioral analysis is not a fad, rapid prompting, a parents' primer to find what autism treatment works, relationship therapies, the gluten-free, casein-free diet, evidence-based practices, state government regulation of behavioral treatment, and teaching ethics.

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Fad, Fashion, and Science in Professional Practice

Second Edition

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James A. Mulick

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To Susan,  
For sharing the vision  
And to Alyssa and Bethany for taking it forward  
RMF

To my dear wife of 45 years, Nancy Elizabeth Mulick  
JAM

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## Preface to the First Edition

# Fad, Dubious, Controversial, Pseudo-Scientific, and Politically-Correct Treatments in Developmental Disabilities Services

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Over the last 25 years the field of mental retardation and developmental disabilities has grown into one of the largest and most complex, and costly, human services systems in the United States and, indeed, in the world. In the United States, this service system, including child, family, and adult services, consumes billions of service dollars annually, at a level greatly disproportionate to the number of people with developmental disabilities served relative to the number of others served through other programs. The breadth and depth of the clinical field, and related research activities, attest to an extensive and now longstanding public policy commitment to the betterment of people with developmental disabilities in the United States and many other nations. At the same time, this field has certain essential features that are common to other human services and that challenge the fidelity and effectiveness of care at the individual, practitioner, provider agency, and local, state, and national service system levels. These features include shifting philosophical positions that often drive regulatory action and change where and how, but not how well, people with developmental disabilities are served and a broad reliance on the least trained and experienced personnel as the primary agents of service. These features are perhaps inherent both in the nature of the work to be done, which relies upon human agency as a service delivery process, and on the constraints on resources that are determined first by public policy, and secondarily by the costs of providing services in a manner that conforms to market standards in the general community. Manual labor is involved in much of the work that needs to be done on behalf of people with developmental disabilities, and this work is done in real time. There are fewer opportunities for teaching service recipients self-care skills, fewer educated consumers of services, and there is often a degree of antagonism toward professionals who incorrectly estimate service needs or independence of people with developmental disabilities. There are also persisting tensions between some of those who advocate for services based on how much costly professional support is really needed. This is because some regard disability as merely a “state of mind” that requires only attitude change on the part of those without disabilities and view the recommendation or offer of professional services as “evidence of discrimination.” In contrast, others advocate for improved, validated, well-reviewed and critically evaluated services and supports for this vulnerable population.

Many allied health and human service disciplines do not emphasize scientific training in the preparation of practitioners and professionals. Unfortunately, over time many of these individuals rise to become influential managers in human services. As a result, the developmental disabilities field, like other human services fields, is pervaded by the delivery of services and design of supports that are less effective than they could be, and sometimes even damaging. Treatments often are provided based on unvalidated or even disproven models of human behavior or methods of intervention. Sometimes people with developmental disabilities may receive services that actually conflict and undermine effectiveness of care. These types of problems are not limited to adult human services. The education of people with developmental disabilities has been affected

by the same forces. Expenditures for the education of children with special needs have continued to grow to the point where school districts budgets are stretched thin. Yet, many of these costs are for programs that are ineffective, poorly designed, and inappropriate and that actually retard student progress, or which are selected by practitioners (e.g., special educators, principals) based primarily on their endorsement or marketing by authorities or well-known professionals in education.

Workforce and employment dynamics are not the only factors that undermine the integrity of treatment or intervention. Parents of children with developmental disabilities, in particular parents of children with mental retardation or autism, are continually seeking, ever more assertively, to obtain more efficacious treatments and educational interventions than the ones they are being offered. The research literature documents both the inefficacy and efficacy of a wide variety of treatments and educational methods for children and youth with a variety of conditions. Research can be used as a fairly reliable guide to what actually works. However, effective treatments or interventions are not always among the choices that professionals inform or offer to parents. Sadly, parents tend to be hesitant to question credentialed professionals about the grounds for their recommendations, sometimes even hesitate to probe professional endorsement of what appear to be quite strange or illogical treatment options.

Local professionals, most of whom are not specialists in mental retardation or developmental disabilities, are most likely to recommend that parents use the types of services with which the professionals are most familiar. These are often not state-of-the-art, sometimes not even appropriate treatment or educational options, but merely the most common, and could be minimally effective or even damaging when used with some disability populations. Even specialists or local educational agencies may recommend methods that fall within their range of skills or that they provide, rather than referring children and families, or dependent adults and their families, to seek more appropriate and better validated alternatives.

Despite the fact that a large share of public health care funds is dedicated to services for people with developmental disabilities, generally a small proportion of these funds goes to pay for services delivered by clinical professionals who meet community standards of licensure or certification and who are disability specialists. One reason why is that fees for services are not lucrative or even, in many cases, competitive with reimbursement under managed care or sufficient to cover practitioner expenses. Specialists in some disabilities are exceedingly hard to find. In the not-for-profit service sector, which dominates adult developmental services, journeyman professionals typically lack funds to attend training in specialized topics, or to attend professional conferences, or to participate in extended training in empirically validated interventions. Often, as well, the ratio of professionals to the number of people with developmental disabilities they serve can be insufficient to permit them to effectively train and provide ongoing technical assistance to the staff who are often the actual direct therapists who carry out interventions. It is well-established that training is effective only when professional follow-up and technical assistance is available and provided. Thus, while there are numerous threats to the integrity of services, no one element of, or group of people, in the service system is responsible for the fragility of developmental disability services. Furthermore, shifting philosophical bases of care, which drive system reforms, have taken place at a rapid pace and have thereby perpetuated this fragile state.

Over the past 15 years there has been a continuing movement from full participation of scientist-practitioners in all facets of developmental services to their having a greatly diminished role. This has occurred as a consequence of the organizing frameworks for the field shifting from dominance of clinical care to educational models of services. Unfortunately, education in the U.S. has no unified model, and is itself in a perpetual state of disrepair and subsequent reform. Most licensed or certified educators lack many of the basic skills needed to be effective consumers of scientific research reports, or to faithfully communicate and translate demonstrated

research findings into program and service innovations. Simply put, their training in the use and interpretation of research is often limited to a single collegiate graduate or undergraduate course and what they can pick up from public television and the Discovery Channel. Education in the U.S. is not a research-based profession (although there are a few sterling exceptions in some graduate training programs). As the field of developmental disabilities has turned increasingly to education as a touchstone for reform and improvement, supposed common sense, nevertheless uninformed by scientific research and evaluation studies, has become an ever greater component of that reform. As this “common” sense has pervaded the field, there has also been a growing susceptibility to repeating past mistakes at the level of service and policy, and to the adoption of fad treatments that have a patina of apparent effectiveness, but that may also have very negative side effects.

This book addresses the present status and perpetuation of fad treatments and elucidates the details of research in areas of controversy within the field. Fad, dubious, controversial, pseudo-scientific, and politically correct treatments are not readily designated as exclusively faddish or controversial; rather, a treatment may be both faddish and controversial, and politically correct as well—and in those instances, still not be worth a tinker’s damn.

Here, and in the chapters that follow, fad treatments are considered to have several characteristics. The most important is that they are introduced, rapidly increase in use, soon become pervasive, and then, following some extended period of pervasive use, rapidly decrease over time and are abandoned. Concurrently, fad treatments are often promoted or adopted based on testimonials from recognized, otherwise authoritative or prominent professionals in a field, averring that they are highly effective in alleviating problems in everyday or advanced skill development that are common among people with developmental disabilities. Yet, no evidence is offered to back up these testimonials that are more than suggestive in nature, or that is based on research or investigation that meets credible standards. Sometimes fads are further perpetuated by testimonials by prominent scientists, who really are trained and expert in other scientific fields (e.g., chemistry, physics), but not in the behavioral sciences, and who may be susceptible to the misunderstanding of well-established behavioral science findings regarding the nature, impact, and alleviation of developmental disabilities. Most often fads are adopted and further disseminated by well-meaning professionals or paraprofessionals who do not have the skills, training, background, or inclination to investigate whether the methods they have been encouraged to adopt are well-grounded in valid research. Fad treatments sometimes decrease in use over time because researchers have investigated their effects and found them to be wanting, and conveyed *this* information to practitioners engaging in fad practices. Or fad treatments’ demise may occur because they are succeeded by more novel (i.e., sometimes merely newer) fad treatments to address the same or kindred developmental and functional concerns. However, a final characteristic of fad treatments is that they are never *completely* abandoned; they persist in use by small groups of professionals and resurface through the activities of these professionals, or of advocates who are unaware of the history of similar therapies and their disuse, and believe the treatment they have rediscovered to be novel.

Treatments or therapies may be dubious or controversial because: a) their underlying theoretical (or at least stated) rationales are baseless, or require assumptions of their effectiveness; b) there is little or no unambiguous evidence of their benefits; c) the research underlying their use does not meet conventional standards of quality or specificity; or d) there are much simpler and better-verified explanations for apparent, superficial effects of their use. And, somewhat surprisingly, some therapies are both dubious and controversial because either their stated theoretical rationales have been effectively disproven or their stated benefits have been found, in evaluative and controlled research, to be evanescent or nil. Yet, some professionals who initially champion and promulgate such therapies broadly and assertively do not abandon their positions, but rather

may harden them and may even attack the integrity of those who question whether the therapy works. The most sophisticated of advocates for dubious or controversial therapies will accurately note that scientific methods cannot formally disprove a premise that a therapy “works.” However, these same methods can make it possible to discern that the assumptions underlying a therapy are unfounded and inconsistent with facts, and that under the circumstances when a therapy is purported to “work,” in fact the observed effects are merely an appearance of benefit, far less notable and meaningful than claimed, or undetectable. Therapies are dubious when their rationales and purported effects are poorly substantiated; they are controversial when advocacy for their use persists despite evidence regarding the insubstantiality of rationale or impact. In some cases dubious and controversial treatments are acknowledged by many professionals except for those trained in the discipline that most commonly uses those treatments; in such cases, professional training programs in colleges and universities are the culprits that perpetuate these practices.

Pseudo-scientific practices of professionals and near-professionals are, simply stated, based on inadequate research designs that cannot actually document the effects claimed for a practice, or are based on a rationale that is stated in scientific terms, but is not itself founded on findings from relevant and basic scientific research. Pseudo-scientific practices persist in circumstances where practitioners adhere to applying outmoded methods of clinical service that are disconfirmed by research conducted subsequent to their graduate training. These practitioners fail to consult the ever-expanding research base of their disciplines as a foundation for improving practices, when they wholeheartedly and uncritically accept testimonial or anecdotal evidence of rationale from prominent authorities, or, in a small number of cases, when they knowingly pursue the perpetuation of practices that are lucrative but ineffective and groundless.

Finally, politically correct treatments are based on rationales that are somewhat scientific, non-scientific, pseudo-scientific, or even anti-scientific in nature. Such treatments are disseminated and adopted by professionals and managers because they resonate in their purported nature and effects with ideological perspectives, or because their use contributes to the realization of other, perhaps tangible, socially progressive goals or objectives of service delivery. There also is the element of financial and professional gain via obtaining of large governmental grants and the establishment of a new field. The rationale for such treatments, which may not even consist of a therapy intended to ameliorate functional limitations, induce skills, or cure ills, but instead to possibly enhance, or appear to enhance, the social status of people with developmental disabilities, may be no more complex than “to do the right thing.” However resonant with political reasoning, politically correct treatments seldom resonate in the same manner with either scientific findings within a discipline or with thoughtful and critical common sense. When they do, they can be both effective or beneficial, and politically correct. Reliance on socially progressive public policy rationales for a treatment ignores the fact that such policies are ever-changing, revised because they reflect a political consensus rather than substantiated fact, or may even be inconsistent with the attainment of greater independence and community engagement by some or many people with developmental disabilities. On the other hand, within the body politic of national organizations that pride themselves upon their progressive policy postures, promotion and adherence to politically correct treatment selection can propel individual advocates to prominence, despite the fact that the treatments, or indeed, their particular policies they espouse, are without generality and of small benefit to the individuals for whom they would advocate. Because political and social acceptance, and not the attainment of known or identifiable benefits for the people who are served are the end goals, those who would advocate for treatments, therapies, or methods that may (or factually may not) “contribute” to the social well-being of people with developmental disabilities, may be among those most prone, and most motivated, to disregard or derogate findings from research that disconfirm their positions.

Any book that evaluates, across a number of disciplines, the various fads, treatments, and movements that have proved to be ineffective, dubious, harmful, or politically driven should acknowledge any biases on part of the editors and chapter authors. And we do—a shared bias towards science and empirically based treatments and decision making. Thus, our criterion for selecting authors was first and foremost that they had a history of critiquing faulty practices and spurious reasoning, especially in their own areas of expertise.

Using this criterion, we assembled a group of collaborators from a number of disciplines and theoretical perspectives who were bound to this project by a belief in science and seemed capable of sharing our outrage at what has been falsely done to individuals with developmental disabilities and their families. Once everyone was on board the book became a labor of love fueled by a shared desire to protect some of our most vulnerable citizens and their families and loved ones from experiences that offer hope but deliver little or nothing.

Throughout this book it may appear to some that many descriptions of effective, science based alternatives to fads and dubious treatments seem to be behaviorally based. This is an accurate reading and is based on the simple fact that there is a very large body of peer reviewed literature supporting the use of behavioral approaches with individuals with developmental disabilities and autism. However, nonbehavioral approaches that have empirical or scientific support can be found throughout the book as well. Simply put, the issue is not behavioral versus nonbehavioral approaches or models, but rather empirically supported versus empirically baseless treatments.

Another reason why this book may appear to favor interventions that are behavioral is that we are behavior analysts. However, as mentioned above, we did not select our chapter authors according to some behavior analytic litmus test but rather on the basis of their ability to handle a selected topic. In virtually every case, the individuals selected were among those best suited by history and knowledge to write that chapter. Indeed, our collaborators break down into three general categories: behavior analysts, individuals who would not describe themselves as behavior analysts but who favor or are sympathetic to behavioral analytic approaches because of the strong science underlying them, and those who appreciate or acknowledge the empirical base of behavior analysis but who would not identify with it professionally.

Some readers of this book also may conclude that in bringing together both research summaries and critiques of occasional or even prevalent practices in developmental services, we are indicting the field of developmental disabilities. Nothing could be further from the truth. Indeed, over the many years each of us has been involved in various aspects of developmental services we have found that the great majority of paraprofessionals and professionals are committed to the well-being of people with developmental disabilities. Professionals with different disciplinary backgrounds understandably differ in the factors they emphasize as indications of well-being or of progress in the field. But as in any circumstance, and they are common in human services, when social policy and clinical practice are interwoven, the integrity of both policy and research may be compromised. Policy formation is not the function of research, nor is the function of research to verify that politically correct or valued postures are correct in a larger or other sense. Policies can be contrafactual, in that their premises may not be factual, and often such policies have unintended impacts that are unforeseen. The formation and implementation of contrafactual policies cannot survive scrutiny of their outcomes when these are adequately researched, and scientific activity is a counterbalance to such policies, although science in itself does not constitute a sufficient basis for either social action or social policy. Our position is that when professionals waste public and private resources through the perpetuation of fad, dubious, controversial, ineffective, non-beneficial, politically correct, and sometimes damaging or depriving treatments, or advocate for disuse of effective and valuable treatments they claim to be unacceptable on political grounds, they diminish themselves as trusted professionals, their professions, and the people they would purport to serve. The very nature of professionalism requires responsibility on



our part; responsibility to those we serve by displaying more self-reflection, more candor, more honesty, and the capacity to be more objective about one's practices and their implications. The chapters in this book cover a wide range of treatments and interventions that have become common in educational and adult service settings for people with developmental disabilities, but we have not been able to include the full range of practices that may be, or have been found to be, dubious in nature. It is not reasonable to expect that professionals will be able to rely on high quality scientific research as the foundation of every action taken and decision made in the course of providing services to vulnerable individuals. Nevertheless, in the chapters in this book we can see recurrent patterns where the actual benefits of interventions or common practices have been found, through systematic scrutiny, to be greatly deficient in what they deliver. Yet some or many practitioners and professionals persist in each of these practices, or in reviving them. Their professions deserve better, and even more, so do the people they serve.

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## Preface

# Fad, Dubious, Controversial, Pseudoscientific, and Politically Correct Treatments in Autism and Developmental Disabilities Services

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A decade has passed since the first edition of this book was published. While much has changed in the world, the field of autism and intellectual disabilities continues to be fraught with fads, controversial, unsupported, disproven, invalidated, and politically correct treatments that either were present in 2005 and have not disappeared or have appeared since then. Both types are covered in this book.

In Part I on General Issues, Stuart Vyse has updated his chapter on “Where Do Fads Come From?” They are still coming, and the reasons remain as germane now as 10 years ago. Tristram Smith takes a similar tack in his chapter on the “Appeal of Unvalidated Treatments.” He updates why these treatments are so appealing with some examples of some new ones that have failed to pass muster. We have deliberately kept Newsom and Hovanitz’s chapter on “The Nature and Value of Empirically Validated Interventions” unchanged. It was primarily historical, and we feel that history needs to be known. Crichton “Buddy” Newsom passed away in 2008, leaving a tremendous intellectual void in our field. He coauthored this chapter with his wife Christine A. Hovanitz and, given its scholarship, continued relevance, and lasting importance, we left the chapter intact as a memorial to Buddy and the incisive product that he and Christine produced.

The four chapters in Part II on Historical, Cultural, and Psychological Issues are updates from the first edition. Elizabeth Kryszak helped us revise chapters we had written with John Jacobson by bringing a set of fresh eyes to the topics. We very much appreciate her efforts with Chapter 4, a history of fads from the 1800s to today, and with “Developmental Disabilities and the Paranormal” in Chapter 7. She is a young scientist and clinician to keep an eye on for the solid contributions she will certainly make in this field during her career. Stephen Greenspan has added new insights to why individuals are gullible when exposed to fads, including a very topical self-revelation. Jeanmarie Badar has joined Jim Kaufman and Devery Mock (now Ward) in revisiting the delusion of full inclusion and its many intended and unintended consequences in education.

The chapters on Field-Specific Issues in Part III represent major rewrites of topics from edition one. The chapter on the neutralization of special education has been significantly revised by Heward and Silvestri, to the point that they have switched the order of authorship. A similar major and insightful revamp was done in the chapter on fads and controversial treatments in speech and language pathology by Mareile Koenig and Cheryl Gunter. They changed the order of authorship in a chapter that is vastly different from their effort in the first edition. Tom Zane has added new material and perspective and four coauthors—Mary Jane Weiss, Sam Blanco, Lorraine Otte, and Josephine Southwick—to his chapter “Fads in Special Education.”

Part IV, Disorder- and Symptom-Specific Issues, remains the largest section of the book, with 6 of the 15 chapters being new. Updated and reworked chapters include “Autism: A Twenty-First Century Fad Magnet” by Bernard Metz, Jim Mulick, and Eric Butter, in which the “cure de jour” phenomenon is alive and well and expanding almost exponentially. Some fad classics that

refuse to die and that appear to be repackaging themselves include “Sensory Integrative Therapy” by Tristram Smith, Daniel Mruzek, and Dennis Mazingo, “Auditory Integration Training” by Oliver Mudford and Chris Cullen, and “Gentle Teaching,” in which Mudford and Cullen were joined in their review by Angela Arnold-Saritepe. “Facilitated Communication: The Ultimate Fad Treatment” by the editors and John Jacobson continues unabated with a new name: supported typing.

Several new chapters have been added. Gerald Koocher and Erica Gill cover animal-assisted therapies, aromatherapy, and hands-on therapies in a chapter titled “Pet Me, Sniff Me, Squeeze Me: Quack Therapies for Autism.” Thomas Zane, Mary Jane Weiss, Kari Dunlop, and Josephine Southwick evaluate floor time and RID in a chapter on relationship-based therapies. The Clever Hans phenomenon rears its head every few years, with the latest version being rapid prompting. James Todd explores it in depth along with its stablemate, facilitated communication, in his chapter “Old Horses in New Stables.” Two major dietary fads are addressed by Keith Williams and Richard Foxx in a chapter titled “The Gluten-Free, Casein-Free Diet.”

Parents of children with autism and intellectual disabilities are often at loss as to what interventions they should pursue for their children. Shannon Kay has updated her chapter on “Helping Parents Separate the Wheat From the Chaff: Putting Autism Treatments to the Test.” Recognizing that parents need a primer on negotiating the autism treatment minefield, Sabrina Freeman, a Ph.D. and mother of child with autism, has contributed a chapter version of her excellent book for parents, *The Complete Guide to Autism Treatments: A Parent’s Handbook*. But specifically what does work? Richard Foxx discusses ABA and why it is not a fad, pseudoscience, or dubious or controversial treatment. No discussion of political correctness would be complete without addressing positive behavior support, which Mulick and Butter update in “Positive Behavior Support: A Paternalistic Utopian Delusion.”

Two chapters address the treatment and reduction of behavior. Newsom and Kroeger’s chapter on nonaversive treatment has been left intact from the book’s first edition. It was a superb analysis then, and it remains as such. What is new is Kimberly’s touching memorial to Buddy Newsom. As Buddy’s longtime colleagues, we greatly miss his critical thinking skills and were moved by Kimberly’s fitting tribute. Richard Foxx again addresses the myth of the nonaversive treatment of severe behavior with a new section on the perpetuation of the myth by individuals supporting functional analysis as a panacea.

Part V on ethical, legal, and political concerns contains five chapters. Two that appeared in the first edition have been updated and expanded. Peter Sturmey’s chapter on ethics has a new concentration on applied behavior analysis. Richard Foxx’s 25-year update on what has happened to the treatment of destructive behavior since the 1989 National Institutes of Health Consensus Conference reveals that much of what was recommended was not pursued, leaving a significant population of individuals essentially untreated.

In the first of three new chapters, Jon Bailey and Mary Burch cover the teaching of ethics in a behavior analysis graduate course. Thomas Zane, Mary Jane Weiss, Cheryl Davis, and Ian Melton follow with an examination of evidence-based practices across different disciplines and make recommendations for consistent standards. The book concludes with a review of the government regulation of behavioral treatment by Richard Foxx, Valerie LaCerra, Nina Carraghan, and Jessica Fedezko in the aptly titled “State Government Regulation of Behavioral Treatment: The Good, the Bad, and the Ugly.”

In a perfect world, there would be no need for a second edition of a book on all the various practices that not only do not help individuals with autism spectrum disorders (ASD) and intellectual disabilities (ID) but in many cases hurt as well. For as long as there are parents and professional desperately seeking help or *to* help, there will always be individuals who take advantage of that very desperation.

In closing, not a day goes by that we don't think of our dear friend and colleague John Jacobson. He was especially in our thoughts as we worked on this book because we kept thinking "what would John think about this chapter?" and wishing we had his input on it. We greatly miss having him with us in the fight to bring quality treatment and education to individuals with handicapping conditions.

John was the driving force behind the book's first edition, which is not surprising to those who knew of his prodigious intellect and total commitment to empiricism, professionalism, and ethics. In following that path through the field of autism and intellectual disabilities, John took many steps and left many footprints. We hope this second edition is a fitting testament to his legacy and that journey.

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Part I

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# General Issues

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## Where Do Fads Come From?

Stuart Vyse

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*But, above all, let it be considered that what is more wholesome than any particular belief is integrity of belief; and that to avoid looking into the support of any belief from fear that it may turn out rotten is quite as immoral as it is disadvantageous.*

—Charles Sanders Peirce (1992)

*It is wrong in all cases to believe on insufficient evidence; and where it is presumption to doubt and to investigate, there it is worse than presumption to believe.*

—William K. Clifford (1886)

### What's in a Fad?

Before anything can be said about how fad therapies emerge and why they are often adopted over more valuable approaches, we must understand what we are talking about. What is a fad therapy in the field of developmental disabilities, and how does it stand in relation to other, nonfad therapies? When language is used to define social or functional categories, it is often because doing so benefits someone by codifying an inherent value system. The motivations behind the establishment of these categories may be honorable or dishonorable. For example, the use of the label “mental retardation,” based on definitions involving intellectual and adaptive functioning, made it possible for a segment of the population to receive educational and social services that enhanced their lives. At the same time, applying this label—as well as providing the services—often made these individuals more susceptible to stigmatization, prejudice, and discrimination (Danforth, 2002; Goode, 2002). Indeed, the current preference for the phrase “person with intellectual or developmental disability” is aimed at diminishing the stigmatizing effect of labeling by referencing a specific aspect of the person—one ability among many—and avoiding a global assessment of the individual.

Throughout this volume the treatments that are its subject will be described using adjectives such as “fad,” “alternative,” “controversial,” “pseudoscientific,” and “unsubstantiated,” among others. It must be acknowledged that these are—in some sense—terms of derision, and they reveal the value system of the authors who use them. I will return to the definition of a fad later, but what of the other terms? For example, if a therapy is “alternative,” it can only be so in relation to some other standard or orthodox therapy (Wolpe, 1999). That which distinguishes orthodox from alternative or unorthodox therapies may or may not be the level of scientific support. A therapy is “controversial” in relation to some issue of controversy brought, presumably, by those who are critical of its use. Thus, just as being honored often has more to do with the honorers than the honored, being controversial may have more to do with the views of a therapy’s critics than with the therapy itself. Absent arguments against it, a therapy might be free of controversy, but being so says nothing of its value. The label



“pseudoscientific” is a pejorative adjective that suggests the treatment in question appears to be—but is not—scientific. The therapy may employ a technical jargon that sounds authoritative, and it may include a theoretical support structure that makes reference to genuinely scientific content (e.g., neurotransmitters, the sensory system, the brain), all of which give it the look and feel of a scientifically based treatment. But if these trappings of science are not backed up by reliable evidence, the treatment is a sham that steals some of its appeal from the positive reputation genuine science has acquired over its history. Despite the abundant evidence to the contrary (e.g., Carroll, 2003; Shermer, 1997, and—for that matter—a book like this one), we live in an age of science. Although many people reject scientific thinking in important aspects of their lives, appeals to the scientific basis of a belief, product, or treatment often lend credibility to it. So powerful is the allure of science as a method of argument that some have even attempted to use it to support beliefs that are clearly beyond its limits, such as the existence of an afterlife and the possibility that the dead can communicate with the living (Schwartz, Russek, Nelson, & Barentsen, 2001).

But the label “unsubstantiated” or similar terms, such as “non-evidenced-based treatments” or “treatments unsupported by evidence,” are a more direct indication of the philosophy of this volume. If the chapters that follow share a common bias, it is that developmental disabilities treatments should be backed up by evidence and that scientific evidence is to be valued over other forms. The only way to obtain this kind of evidence is through research conducted according to accepted standards of methodology in the behavioral, social, and medical sciences. This is an admittedly positivist stance, and some postmodernists have argued that objective truth is impossible in the social sciences (Flax, 2013; Gergen, 2001). But these arguments do not hold much sway in this arena. People with developmental disabilities and those who work with and care about them do not always leap to scientific evidence—or *sound* scientific evidence—as the best way of evaluating treatments for developmental disabilities, but most agree in principle that this is the kind of evidence that should matter. Most believe that a treatment should be chosen not on the basis of whether it is enjoyable to administer, is consistent with the user’s personal philosophy, or seems logical but on the basis of whether it works. Unfortunately, there is less agreement about what constitutes proof of success. Although most of those concerned about people with developmental disabilities are seeking evidence for the treatments they are using, some have not embraced scientific evidence as the most valued kind, and others cannot separate out the good and bad information they encounter. The purpose of this book is to outline the standards for evaluating treatments and help differentiate treatments that have strong scientific support from those that have little or no support.

By using these labels to distinguish various treatments and therapies for developmental disabilities, we are establishing categories on the basis of the presence or absence of scientific support. This value system is also evident in the definition of a “fad” proposed by the editors of this book. A fad, for the purposes of this volume, is defined as “a procedure, method, or therapy that is adopted rapidly in the presence of little validating research, gains wide use or recognition, and then fades from use—usually in the face of disconfirming research, but often due to the adoption of a new fad” (J. W. Jacobson, personal communication, November 11, 2001). So a fad is a therapy that is not supported by scientific evidence and that has a fairly rapid rise and fall. The basic concern, however, is the question of evidence. There are other techniques—equally lacking in support—that nonetheless manage to maintain their popularity over relatively long periods of time. Though they are not fads, these more resilient therapies are also the appropriate concern of many of the chapters to follow. Understanding that these are relative terms, the short life span of a fad may sometimes be evidence of its lack of value, but conversely, the longer life of another therapy is not necessarily evidence of value. If popularity and longevity were correlated with usefulness, a book like this one might not be necessary. But for a variety of reasons, this is