Autism

The Diagnosis, Treatment, & Etiology of the Undeniable Epidemic

John W. Oller Jr., PhD
Hawthorne Regents Professor
Department of Communicative Disorders
University of Louisiana at Lafayette
Lafayette, LA

Stephen D. Oller, PhD
Assistant Professor
Department of Biological and Health Sciences
Texas A&M University at Kingsville
Kingsville, TX



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Dedication

To the autism community of Acadiana, especially to the Pitres, the Nettles, the Tates, the Thibodeaux, the Chacheres, and the Polotzolas, and to all those who are determined to help bring the autism epidemic to a close.

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Foreword

It is an honor to be asked to write a foreword, particularly one for such a valuable and scholarly contribution to the understanding of autism.

I was involved in filming with NBC, grabbing some B-roll after the serious interviews and the film crew—a producer, a cameraman, and a sound technician—were talking between takes. The cameraman noted how uncanny it was that he, the sound tech, and the producer all had nephews with Asperger syndrome. I, too, have a nephew with Asperger syndrome. Four people, none of whom had met before, were all personally impacted by this previously very rare autistic spectrum disorder, originally described, coincidentally, in only four boys in Vienna by Hans Asperger. That same week, U.K. newspaper headlines reported autistic spectrum disorders in 1 in 38 boys. A 2007 report from the California Department of Developmental Services is just in and makes for a depressing read. Examination of the epidemic growth of autism in the United States and the United Kingdom indicates, with an ominous certainty, that if you are not personally affected by autism in your family now, you will be in the future.

Few contemporary subjects have such immediate and long-term relevance to the "well-being" of the human race. A 20-year period starting in the mid-1980s—the mere blinking of an eye in the life of planet Earth—has witnessed a punctuated equilibrium in the human evolutionary continuum reflecting what I believe is a huge selection pressure on humankind. The autism epidemic is environmentally driven. There are many who believe that recent dramatic changes in early immune programming lie at the heart of this and other childhood immune system disorders. This view is not necessarily a sequela to the "hygiene" hypothesis that originally proposed a lack of exposure to environmental stressors such as infections that might be key to the recent emergence of immunemediated diseases, but rather a proposal that an altered pattern of exposure that does not hold the substitution of infection for vaccination to be a benign influence in this process.

This new book on autism was authored by professionals in communication, and it was written for students of this subject. As the authors state, "The primary aim of this book is to apply sound logical theory to the findings of validated empirical research concerning the autism epidemic." They do so across the broadest landscape, taking the reader from autism's lackluster history in the backwaters of human idiosyncrasy to its unwelcome epidemic prominence as the fin de siècle disease—a "mind plague"—that has stolen so many lives and disrupted so many families. What appealed to me in particular is the authors' emphasis on the narrative of individual children as the bedrock of a deeper understanding of the disease.

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This is not another book written about autism by someone unschooled in the subject. Rather, it is a text written by those for whom autism and the science of communication are a profession and a passion—a book grounded in analysis, reanalysis, empiricism, and logic. And it is a book that should be required reading by health agencies.

This book is unashamedly invested in the belief that the vaccine–autism story has far from run its course. Indeed, science has only just scratched the surface of this complex relationship. In parallel with the evolution of thinking in autism is the story of how enthusiasm on the one hand and fear (and its use) on the other hand—both devices of public relations—have distorted the history of vaccination and inhibited rational debate. Scientists have played their part in this journey and are by no means blameless in the distortion of the facts. I have been blamed for causing, through the media, a vaccine scare. In defense of my position and in accordance with the precautionary principle, having reviewed all the available evidence for MMR vaccine safety, I simply recommended a return to single measles, mumps, and rubella vaccines in preference to MMR and encouraged further research.

In the NBC interview, it was put to me that I was alone with a few parents in believing that the MMR vaccine was unsafe. I responded by saying that 15 years ago this was, indeed, an unusual opinion held by only a handful of physicians. I was able to say, however, that my position on the deficiencies in the relevant vaccine safety studies have now been reinforced by the systematic analysis of Dr. Thomas Jefferson and colleagues from the Cochrane Collaboration, an internationally respected body that provides independent scientific oversight. They wrote, "The design and reporting of safety outcomes in MMR vaccine studies, both pre- and postmarketing is largely inadequate" (Jefferson, Price, Demicheli, & Bianco, 2003, p. 25). In an interview with Richard Halvorsen concerning his 2007 book The Truth about Vaccines, one of the lead authors of the Cochrane review left no doubt as to his true feelings when he said, "The safety studies of MMR vaccine are crap. They're the best crap we have but they're still crap" (Child Health Safety, 2009). With respect to my suggested return to the protection of children with single vaccines, Jefferson and colleagues wrote, "We found limited evidence of safety of MMR compared to its single-component vaccines from low risk of bias studies" (Jefferson et al., 2003, p. 25). More recently, Dr. Lou Cooper, former head of the American Academy of Pediatrics, made the comment in Newsweek that "There's been grossly insufficient investment in research on the safety of immunization" (2009 ②), and, to the Institute of Medicine, that "[Vaccine safety] research has been done on the cheap" (Wrangham, n.d. •).

So what has been the response of the authorities and the vaccine manufacturers to Jefferson's evidence-based approach? In the United Kingdom, the importation license for single viral vaccines was withdrawn in August 1998 at the height of demand by a justifiably concerned public, but regulators continued to deny parents the option of single-agent vaccines. Protecting policy was put before protecting children. In the United States, Merck (the sole supplier of single and combined measles, mumps, and rubella vaccines) has announced its intention to discontinue provision of single-agent vaccines.

The ability of the regulators and manufacturers to take such positions has been tenuously sustained by scientists bending the facts to the will of the Public Health Politburo. An example of this is an extraordinary quote ascribed to the authors of a recent paper by Dr. Mady Hornig and colleagues: "The work reported here eliminates the remaining support for the hypothesis that autism with GI complaints is related to MMR vaccine exposure" (Levine, 2008; Columbia University Mailman School of Public Health, 2008). Clearly at odds with this extravagant and inappropriate claim, the study actually looked at the relationship between persistent measles virus infection in poorly characterized intestinal biopsies in only five children whose clinical history (regression and onset of intestinal symptoms after MMR vaccination) identified them as being in the group of interest. The problem with this kind of compromise is that for whoever made the statement and whatever

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their motivation, there is no way back. They have forsaken the scientific debate for populist blogspeak and damaged the prospects of further research into an important area.

Part of what is needed in the deconstruction of the PR myth is an objective analysis of the "vast number of studies that discount an association between vaccines and autism," a line frequently employed by Dr. Paul Offit (2008) among others. This book takes a closer look at the pattern of exposure to vaccines and autism risk. A recent example of the importance of this "pattern of exposure" phenomenon comes from Kara McDonald at the University of Manitoba involving more than 11,500 children who received at least four doses of DTP (diphtheria, tetanus, and whole cell pertussis vaccine), among whom the risk of asthma was reduced by half in children whose first dose of DTP was delayed by more than 2 months (McDonald, Huq, Lix, Becker, & Kozyrskyj, 2008). The likelihood of asthma in children with delays in all three doses was reduced still further. In contrast, for those children whose first dose was given ahead of schedule, there was an estimated increased risk of asthma of 60% compared with those children who received their first dose at the recommended time. This gradient of risk associated with age of exposure is compelling and may well explain the discordance between results of other studies that sought to examine the DTP–asthma link.

As part of this deconstruction, the authors of this book have taken a look at the original flawed analysis carried out by Dr. Loring Dales, working for the California Health Services, and the CDC (Dales, Hammer, & Smith, 2001). Using Dales et al.'s data, J. W. Oller and S. D. Oller show a highly significant correlation between autism numbers and increasing uptake of vaccines over time. The data provided here support the reanalysis of Dales et al.'s data undertaken by Edwardes and Baltzan (2001), who confirmed that the rate of early MMR immunization is correlated with the incidence of autism. The correlation appears in data that were obscured in an attempted feat of graphical wizardry by Dales et al. Although the data suggest that younger age at MMR vaccination may be associated with a rise in autism at the population level, ecologic studies such as those of Dales and colleagues are of limited value when it comes to taking the question further.

In an attempt to settle this issue, CDC researchers stepped in with a case-control study comparing age at first MMR vaccination in children from the Atlanta metro area (DeStefano, Bhasin, Thompson, Yeargin-Allsopp, & Boyle, 2004). By 36 months of age, significantly more cases with autism had received MMR vaccines than controls. This association was strongest when children received the vaccine at a younger age, particularly in the 3- to 5-year age group (odds ratio = 2.34). Due to diagnostic delay, a significant proportion of this group of young children had yet to be diagnosed with autism at the time of the study, potentially underestimating this risk. In a subgroup analysis adjusted for birth weight, multiple gestation, maternal age, and maternal education, the odds ratios were increased to 3.55, however, strengthening the association between younger age of exposure to MMR and autism risk.

Why am I telling you this? Because the DeStefano et al. study has been cited as supporting the safety of MMR vaccination. The positive finding was deemed to be apparently an "artifact of vaccine requirements for special needs children." Of course, these children are actually no different from children in regular education. The argument is false, and no evidence has ever been produced to support it. Several other "negative" studies support the association between younger MMR exposure and increased autism risk (Richler et al., 2006). Even so, the "no harm from vaccines" band plays on.

It was suggested in my exchanges with NBC that the perceived response to questioning vaccine safety smacks of conspiracy theory. Although not directly relevant to the issue of vaccines, I was able to provide the production team with a recent posting on the class-action suit involving Merck and Vioxx, entitled "Drug Company Had Hit List for Doctors Who Criticized Them" (Mercola, 2009). It continued, "The international drug company Merck had a hit list of doctors who had to

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be 'neutralized' or discredited because they had criticized the painkiller Vioxx, a now-withdrawn drug that the pharmaceutical giant produced" (Mercola, 2009).

Staff at Merck emailed each other about the list of doctors. The email, which became public during a class-action suit against the drug company, included the words "neutralize," "neutralized," and "discredit" alongside some of the doctors' names (Rout, 2009). The company is alleged to have used intimidation tactics against researchers, including dropping hints that the company would stop funding their institutions and possibly even interfere with academic appointments (Rout, 2009). The article concluded with an email excerpt from a Merck employee read to the court that went as follows: "We may need to seek them out and destroy them where they live."

Who needs conspiracy? Congratulations to the authors of this text for their insights and their courage.

Finally, I should disclose that the Ollers have offered to donate any profits from sales of this book to Thoughtful House, a center for care of children with developmental disorders and research into these diseases of which I am the executive director. We are fighting to recover children with developmental disorders (autism, PDD, Asperger syndrome, ADD, ADHD, and NLD) through the unique combination of medical care, education, and research.

Andrew J. Wakefield, MB, BS, FRCS, FRCPath

Thoughtful House Center for Children 3001 Bee Caves Road Austin, TX 78746

http://www.thoughtfulhouse.org/index.php

Preface

A few decades ago, most ordinary citizens had no idea what autism was; they had never heard of it. Today, it seems that everyone in the world is talking about autism. Why is that? Because of media hype? Greater public awareness? Were the cases that are being diagnosed today always there but unnoticed until recently? What has changed to bring about what Edlich, Son, et al. (2007) describe as "an epidemic of neurodevelopment disorders in the United States" (p. 204)?

Logical thought shows that the upsurge in autism cannot be uncaused, but why would the Centers for Disease Control and Prevention (CDC) and other parties publicly express doubt about the existence of a growing epidemic? Why did the director of the National Immunization Program at the CDC work so hard, along with a group of 11 experts from the CDC and 40 other representatives from drug companies and the federal government, to try to make the association between autism and the neurotoxin known as thimerosal "go away" in analyses of data from the National Immunization Program's Vaccine Safety Datalink? Why have more than 5300 thimerosal-related claims for injuries that have caused autism or made it worse been filed under the Vaccine Injury Compensation Program? What is causing the upsurge in the number of persons being diagnosed with neurological and related disorders, and what can be done to help them? Is there such a thing as full recovery from severe autism?

We hope that this book not only informs college majors in communication disorders and closely related fields about the nature and causes of the autism epidemic, but also enables better understanding among private citizens and healthcare professionals about the potentially deadly and often harmful interactions of disease agents, foreign proteins, toxins, and medications to which we are commonly exposed in early childhood and later in life. We also hope that speech-language pathologists and audiologists in particular can become better informed concerning the relevant research, theory, and treatments for autism and other chronic medical conditions. We agree with Brian Jepson, who writes, "I believe that understanding autism will give us the key to unlock the mysteries of many other modern diseases" (Jepson & Johnson, 2007, p. 180). The goal is to understand what is causing such conditions so as to prevent, cure, or effectively treat them. Although this book is designed especially for majors in communication disorders headed for a career in speech-language pathology, audiology, or a related area, we believe it will be of general interest to health professionals and to all persons and families affected either directly or indirectly by autism and related diseases and disorders.

This symbol indicates that additional material can be found on the enclosed DVD.

Acknowledgments

Every book project is a team effort and this one is no exception. We must begin at home in thanking our families, especially our spouses, Mary Anne Oller and Stacy Niolon Oller, for their generous support and love throughout the arduous process of getting two books into print this summer. Both projects have involved years of work and our spouses have contributed ideas, concepts, and no small amount of research and labor. Over recent months, Mary Anne helped in gathering photos and permissions for the cover material for this book and Stacy has contributed important ideas, references, and resources for both the book and the DVD from her experience and research as a speech-language pathologist. Both of them, along with our children and, in John's case, grandchildren, were incredibly patient and understanding.

We also want to thank the families of children with autism who have shared their rich and sometimes difficult first-hand experience with the consequences of the growing epidemic. Among the many, we acknowledge the following families, each of whom contributed a photograph of one of the children with autism featured in the puzzle pieces on the cover of the book. We thank Theron and Terri Pitre and their son Ethan; Hester and Paul Bourdier II and their son Crawford; Duane and Vicki Waihi and their son Andrew, as well as the professional photographer Kari Smith, who contributed the photograph of Andrew.

In addition to the individuals who have been closest to this book project, we thank the Sertoma Club of Lafayette for cosponsoring, along with the University of Louisiana, an International Conference on Autism Spectrum at the Cajundome in Lafayette in the spring of 2007. The Sertoma Club of Lafayette also subsequently funded the bulk of a matching grant cosponsored by Sertoma International to the Autism Society of Acadiana with the senior author as Principal Investigator. That grant provided computer equipment, software, and video cameras for the study of medical protocols in the treatment of autism spectrum disorders. That grant provided some of the resources used in this work and is gratefully acknowledged. We must also mention among the key Sertoma leaders, Steve Broussard, Ron Chauffe, Paul George, Gerald Domingue, Joey LeRouge, John Nugent, Theron Pitre, Burnie Smith, and Jimmy Thomas. We also thank those families associated with our local branch of the Autism Society of America—the Autism Society of Acadiana (ASAC, an affiliate of Sertoma International). In addition to leaders of that organization whom we have already mentioned we must add Vicki, Charlie, and Katherine Nettles, and Carolyn, Ron, Jamie, Lauren, and Chris Tate.

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Above all we thank our Creator God. In the text that follows, and on the DVD, we have explicitly thanked many other individuals who have permitted us to use their names and to quote their words. Here we must mention Clint Andrus, Amanda Blanchard, Crystal Boihem, Heidi Kidder, Melissa Fowlkes, Stephanie Grant, Rena S. Romero, Cheryl Sinner, Sharon Williams, and Sheria Williams. We also thank all our other students who participated in the pretesting and final work-up of the 600 multiple-choice items that are provided on the DVD. For invaluable help with the technical production of the DVD we thank Will Oller, as well as Taylor and Ruthie Toce. A special thank you, in the order in which material appears in the book, is owed to each of the following: For the story of Vance Walker, we thank his mother Shelly and the author/journalist Ingri Cassel; we commend and thank Lisa and J. B. Handley for their outstanding work and Web sites; Dan Hollenbeck for the excellent analyses of the growth trends in the diagnosis of autism; Aileen Mieko Smith for her Web site telling the story of Minamata disease; Jim West for his work on the etiology of polio; Dr. Robyn Cosford and colleagues for data concerning the abnormal ecosystems in the intestines of persons with autism; Dr. C. A. Wiley for allowing us to use an electron-micrograph of an HIV-infected macrophage; and T. C. Theoharides for sharing his creative work on the many complex and little understood gut-brain interactions. Finally, we should mention here that many additional specific credit lines and acknowledgments appear throughout the text and on the DVD. Thanks to everyone who has already had a part in this work and to all those users and sojourners yet to come who will share in it. We hope you benefit from and enjoy using this book and the accompanying material.

About the Authors

John W. Oller Jr., PhD, is the founder of the Applied Language and Speech Sciences PhD Program at the University of Louisiana at Lafayette. His work has focused on milestones of early childhood, with special emphasis on child language development, literacy, sociocognitive development, and disorders. His research has led to advances in the measurement of language proficiency, which is a major factor in high-stakes testing, diagnosis of disorders, and social interactions. John Oller's theory of abstraction predicted the fact that normal infants can read and demonstrate comprehension of printed words and phrases well before their first birthday and even before they are able to say them out loud. Other advances include reclassification of communication disorders across the board on a more comprehensive, simpler, and more consistent basis. This book shows that the autism epidemic is real but that it can be halted. It also shows that a paradigm shift in medicine is under way concerning the treatment of chronic diseases and disorders. Oller is a winner of the MLA Mildenberger Medal and holds one of the Doris B. Hawthorne Endowed Professorships at the University of Louisiana.

Stephen D. Oller, PhD, is a specialist in language disorders of childhood and the author of an introduction to that subject matter. He is an assistant professor at the University of Texas A&M at the Kingsville campus. He is also the author of theoretical and practical work on speech-language interventions as well as the assessment and diagnosis of communication disorders. Together with his wife, Stacy A. Oller, CCC-SLP, he has developed a training program for the Milestones Scale of Development (2006) that is discussed in Chapter 11 of this book. Stephen Oller is one of the coauthors of *Milestones: Normal Speech and Language Across the Life Span* (2006) and *Cases: Introducing Communication Disorders Across the Life Span* (2010).