Genes and Behavior: Nature-Nurture Interplay Explained

I approached this book as a psychiatric generalist in need of a comprehensive, not-too-detailed survey of contemporary gene-environment research. How well did it fulfill these requirements? Genes and Behavior begins with a balanced account of the scientific and political controversies that abound in this area. It goes on to discuss causation, the nature of risk and protective factors, and the dimensional effect of genes on behavior. Twin designs, statistical model-fitting, twin-separation, adoptee, and blended-families research are described, leading to a discussion of the heritability of different mental disorders and traits. The difference between risk indicators and risk mechanisms is explained, and research into environmental risk mediation is described. The book then moves to an account of Mendelian and multifactorial inheritance, susceptibility genes, qualitative trait loci, the transcription and translation of DNA, and epigenetic mechanisms. The different techniques of locating susceptibility genes are summarized. The additive and synergistic aspects of gene-environment interplay are analyzed. The pathways by which different environments can affect gene expression are delineated.

The book reaches several conclusions. First, the great bulk of human traits and disorders involve both genetic and environmental influences. Second, to varying degrees, the genes influence virtually all behavior. Third, there is no clear cut-off between normal psychological variation and mental disorder: the diagnosis of disorder requires a social judgment. Fourth, the genes operate through multiple causal pathways. Fifth, a delineation of the basic causal pathways requires molecular genetic research. Sixth, it will be necessary, then, to identify how particular genes operate. Lastly, not all gene effects are mediated via protein synthesis: some effects may involve a modification of the transcription and translation of other genes.

The author deftly deals with the extreme arguments of genetic and environmental evangelists. It is a lucid, balanced tour de force. Highly recommended.

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Essentials of Child and Adolescent Psychiatry
edited by Mina K. Dulcan, M.D., and Jerry M. Wiener, M.D.

Much of America is underserved in terms of access to child and adolescent psychiatrists. Therefore, general psychiatrists, pediatricians, and family practitioners are often called upon to provide treatment for young patients with a wide range of behavioral disorders. It is for this reason that the Essentials of Child and Adolescent Psychiatry, edited by Dr. Dulcan and the late Dr. Wiener, will probably be of greatest use. The Essentials is an abbreviated version of the standard text the American Psychiatric Publishing Textbook of Child and Adolescent Psychiatry (3rd edition),1 which was published in 2004. Even though many chapters of the original volume were omitted and the retained material “pruned,” as Dr. Dulcan puts it in her introduction, the Essentials is still a hefty tome at more than 800 pages. Few will read the Essentials from cover to cover. Mostly, readers will choose a topic and update themselves by reading the pertinent chapter, or else they will look for a quick topical reference and consult the index to get the information on, say, use of selective serotonin reuptake inhibitors in adolescents. In both situations, the book is user-friendly, with its consistently structured chapters and its thumbnail overviews of clinical issues.

It is likely that this book will become a popular reference volume on the shelves of all frontline clinicians who deal with young patients and their parents, and it will serve this target group admirably. Early on, the thorny issue of the current DSM classification’s adequacy for capturing psychopathology in the pediatric age groups is briefly addressed, without getting lost in theoretical minutiae. The current classification is used as the organizing principle for much of the book, skillfully integrating it with developmental theories and psychodynamic explanations where useful. Chapter 1, I suspect, must be one of the most succinct and yet comprehensive overviews of childhood development on record. The attention paid to the work by Kohlberg and Spitz is welcome and helpful as a reference to understanding the pathogenesis of much of the material later in the book. What is missing in this section is any reference to Winnicott and the contributions of self-psychology: so much of our clinical work with young patients concerns pathology that prefigures later borderline personality structure. A succinct description of the narcissistic line of development would be of practical relevance for conceptualizing the affective and behavioral syndromes that end up too easily explained as bipolar mood disorders or conduct disorders.

In the section on developmental disorders, much care is taken to help practitioners understand the differences between mental retardation, autistic disorders, and other developmental disorders. Even though the section on treatments of the American Psychiatric Publishing Textbook of Child and Adolescent Psychiatry has been reduced to the (thorough) chapter on psychopharmacology, the discussion of various disorders includes, in each instance, attention to nonpharmacologic treatments. This is especially noteworthy in the chapters on developmental disabilities, where a broad range of environmental and psychosocial interventions is discussed. Naturally, biological therapies are addressed in these discussions as well, occasionally leading to redundancies with the psychopharmacology chapter. By and large, however, the editors have been successful in keeping repetition and overlap under control, even though 59 separate authors have contributed. In future editions, the editors might become still more assertive and encourage the contributors to use more of a “best practice” approach. The concatenation of 1-sentence summaries of clinical trial results is less informative than, say, a table that concisely ranks first-line, second-line, etc., treatments, relaying the sources to the reference section. In general, the scarcity of tables and the absence of graphics are weaknesses that ought to be amenable to easy correction.

On the other hand, there is a pedagogic maneuver that deserves positive note: at the end of each chapter, the respective authors have included a set of multiple-choice questions (MCQs) to allow readers to test themselves as to how well they have absorbed the preceding material. This is a nice touch as most physicians, despite having an ambivalent relationship to standardized testing, are inexorably driven to tackling MCQ quizzes. In this book, such testing will likely reinforce the material just read. One quibble, however, is the pervasive use of “none of the above” and “all of the above” options, which have been abandoned in state-of-the-art MCQ design.
Anyone involved in putting together a textbook is familiar with the problem of datedness. For this volume, material was updated from the *American Psychiatric Publishing Textbook of Child and Adolescent Psychiatry*. Even so, references go no farther than 2003, leaving out, for instance, in the section on psychopharmacology, any discussion of aripiprazole. It is a dilemma that suggests to this reviewer that texts like this ought to be published with an electronic companion version that offers serial updates to readers as part of the original purchase.

**Reference**


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The First and Final Nightmare of Sonia Reich: A Son’s Memoir

This work is an extension of an article written by the author and published November 30, 2003, in the *Chicago Tribune*. Howard Reich, a music critic for the *Tribune*, grew up in Jewish neighborhoods in Chicago in the 50s and 60s. He was the son of Sonia and Robert Reich, who did not know each other in their comfortable early lives in their native Poland but were both victimized by the occupation of Eastern Poland by the Soviets and the Nazis from 1939–1942. After the war, Sonia and Robert separately emigrated to Chicago. They married in 1953, Sonia being 8 years junior to Robert. The book is first an intriguing memoir of life with parents whose eccentricities were never explained to their son. The book is much more than that, however. It is an account of the journey of a grown son to understand in depth the behavior of his taciturn parents, especially the increasingly bizarre behavior of his mother in the years after his father’s death. Further, it is an impassioned attempt to educate people in general and psychiatrists in particular about the phenomenon of late-onset posttraumatic stress disorder (PTSD).

Howard’s mother Sonia is described as a quietly energetic and hard-working but paranoid woman who checked the locks 10 times and sat up all night watching the street in front of the house. Howard was told that he was Jewish, but he was cautioned not to tell anyone, and he learned Catholic prayers. He knew that his father had been in concentration camps and that his mother was from Dubno, Poland. He knew little else, and his mother was especially tight-lipped about her European experiences. After his father’s death, Sonia’s paranoia increased, and she became suspicious even of her son’s motives. Although she manifested no symptoms of dementia, she became delusional and prone to “running,” futile flights into the streets at night to escape imaginary figures who wanted to kill her. Howard frequently was awakened by phone calls from police, hospitals, and relatives reporting that his mother had been picked up and taken to safety.

At the age of 69, Sonia was finally admitted to a psychiatric ward, but she was an uncooperative patient who refused any interviewing or medication. She eventually was admitted to a nursing home. The author is critical of psychiatrists who failed to recognize the picture of late-onset PTSD; eventually, this diagnosis was made. Through both an exploration of the limited psychiatric literature on the subject (referenced in an appendix) and the emergence of an aunt who would talk about the period, Howard realized that he must visit Dubno in order to comprehend both his mother’s life and his own. Later chapters describe the murder of 12,000 Jewish residents of Dubno in 1941 as Howard gains information about Sonia’s survival as an 11-year-old orphan. This powerful section recalls accounts such as that given in D. M. Thomas’ *The White Hotel* of the Babi Yar slaughters.

Our understanding of PTSD continues to evolve, and effective treatment for PTSD sufferers is still elusive. This compelling book tells the story of one woman whose childhood was taken from her, but who managed to survive by craft and determination. That this experience impacted her adult personality is no surprise. That her symptomatic manifestations were contained for decades, only to erupt in psychotic proportions after her main support was gone, is impressive. The book ends on a bittersweet note, because Mr. Reich’s efforts did little to ease his mother’s suffering. I am certain he hopes that readers will achieve a new understanding of the scourge of PTSD. The book is recommended with enthusiasm.

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