

BOOK REVIEWS

Alcohol and Alcoholism: Effects on Brain and Development, by J.H. Hannigan, L.P. Spear, N.E. Spear and C.R. Goodlett, (Eds.). Mahwah, NJ: Lawrence Erlbaum, 1999, 282 + xv pages, \$69.95 (cloth). (*Special prepaid price \$34.50*).

This well-edited volume comprises 11 chapters, an introduction, a concluding chapter, useful chapter summaries, and subject and author indexes. The chapters, which are uniformly well-written, generally review literature through 1997, although some offer new data as well. As the title implies, the concentration of effort in the book is in the area of alcohol's neurodevelopmental effects, and contributions range from cell culture to human studies, with most chapters discussing experiments involving rats.

For one (such as I) who is not active in this area, the introduction and the final chapter offer a very clear idea of what is contained in the 11 main chapters. I would advise the reader to start with the Introduction, to go to Chapter 4, by Goodlett and Johnson, and then on to Goodlett's final chapter on future research. Chapter 4 provides a well-developed discussion of the importance of "temporal windows of vulnerability" to alcohol's effects on the fetus. The notion of critical periods of sensitivity to alcohol's deleterious effects on neurodevelopment is widely accepted, and this excellent chapter provides a framework upon which to organize the various approaches under discussion elsewhere in the volume. Specifically, the authors successfully relate the critical periods for sensitivity to cognitive and motor deficits they study in the rat to both cell culture results and the human clinical implications of their findings.

Goodlett and Johnson's conceptual discussion is most directly apposite to the excellent chapter by Chen and West on alcohol-induced brain damage. It provides a lucid history of the field and has the nice added feature of referring animal results to human studies, and vice versa. It introduces the genetic studies that recur in later chapters, and offers the only discussion of other drugs of abuse in a short treatment of cocaine-alcohol interactions. The primary points emphasized are that not only is the exact window of temporal vulnerability important to outcomes, but so also is the pattern of intake (e.g., binge-like versus relatively constant administration). The summary is disappointingly brief since there is so much valuable information in the chapter.

Heyser et al. contribute an interesting chapter on the alcohol deprivation effect (ADE). Animals (and humans) experienced with alcohol self-administration will increase intake

for a short period after an enforced abstinence. If this rebound increase represents a breakdown in self-regulation, it could contribute to the persistence of alcoholic drinking. The reasons for the increase are not yet understood, however, and several alternative hypotheses remain. The authors present some rat data using the ADE and suggest its use as the basis for screening novel pharmacotherapies.

An elegant chapter by Mennella discusses the sensory and hormonal effects of alcohol transmitted via mother's milk, and Molina et al. summarize years of research by their group and others that establishes that late gestation and preweaning rats can learn about alcohol's odor and/or taste cues. Together, these chapters are convincing evidence that early experience with alcohol may affect adult behaviors oriented toward the drug.

Scattered evidence nonetheless consistently supports a role for inheritance in the determination of alcohol's developmental effects. McKinzie et al. review the most systematic body of genetic data. This comprises studies using rat lines selectively bred for alcohol preference drinking during adulthood, and the authors show that the high-drinking rats indicate their innate preference at very early ages. They discuss several other neurodevelopmental differences between preferring and avoiding lines.

Roebuck et al. describe their studies of prenatally exposed humans, which document neuropsychological deficits accompanied by MRI- and autopsy-based neuropsychological findings. This is an extremely complex area due to the difficulty of establishing the degree and patterning of exposure during pregnancy, but their findings offer hope that specific brain areas, and specific cognitive domains, may be selectively vulnerable to gestational alcohol exposure.

There are four chapters that are a little out of the mainstream for the volume, although each is very good. Hannigan et al. touch on fetal alcohol effects in rodents, but the main work reviewed is *in vitro* exposure of cultured human neuroblastoma cells or primary cultures of rat hippocampal pyramidal cells. Allan and Savage's chapter is a bit odd as it was formatted as a research article. However, it is a very thorough contribution that reviews along the way the effects of gestational alcohol exposure on GABA function (in the data they show, GABA function is assessed as modulation of the GABA-gated chloride ion flux in synaptosomal preparations). Smith et al. describe three human therapies currently in use for alcohol problems. Dudek et al. provide a very thorough analysis of mouse inbred strain differences in sensitiv-

ity to low-dose ethanol-induced behavioral activation, although all studies were in adult animals.

In his concluding chapter, Goodlett does a good job of explaining why each of the four chapters described above serves a specific purpose in the volume. Specifically, he reminds us that the cellular models discussed by the first two are crucial to the development of successful pharmacotherapies, and that the third shows that progress is being made toward development of successful psychotherapies as well. Finally, (and here I needed no convincing) he points out that there is an increasing interest in genetic analyses in this and many other areas, and that Dudek et al.'s chapter is a textbook case of the power and elegance of careful genetic analysis.

In sum, this is a very well integrated book that comprehensively surveys an important field. It could easily serve as the basis for a graduate seminar, but it is written clearly enough that undergraduates could also use it profitably. Bench scientists and clinicians will also find it helpful.

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Couple and Family Therapy of Addiction, by J.D. Levin. Northvale, NJ: Jason Aronson, 1998, 340 + xvii pages, \$60.00 (cloth).

Couple and Family Therapy of Addiction is not a typical edited volume; that is, a compendium of chapters by contributors who are experts in their respective approaches to family therapy for substance abuse. Rather, this book is written in a very personable style; one feels as if one is reading transcripts of a lecture series given by the author. In Part I, a historical overview of systems theory, major theories of family therapy and certain theories of addiction are described. Part II switches format, using Levin's clinical cases to illustrate various approaches to family and couples therapy.

The book is meant to address two audiences—mental health professionals and students, and, in his preface, Levin urges the reader to pick and choose from among the topics and level of coverage: "Don't get bogged down in what is too arcane for you or allow yourself to be bored by what is old hat to you. Plenty of meat remains to be enjoyed." This is good advice, and the book is better used in a modular fashion rather than as a "cover to cover read."

The first chapter is a detailed and wide-ranging discussion of general systems theory. Levin is, foremost, a historian and he demonstrates an impressive breadth and depth of knowledge about systems and intrapsychic theories. He discusses philosophical and psychological theories dating back to Kant and Plato, and continually weaves in ideas from many theorists, including Kohut, Bowen, Bateson, Ludwig Von Bertalanffy, Husserl, Heidegger, Cannon and Whitehead.

Chapter 2 continues in the same vein for a wide-ranging discussion of major theories of family therapy. This chapter is almost 100 pages and could stand alone as a brief review separate from any information on alcohol or drug addiction.

Chapter 3, "The Addicted Family: Addiction Specific Family Therapies," starts off with the etiology of addiction, discussing the adult children of alcoholics (ACOA) literature, genetic factors in alcoholism, psychodynamic theories of etiology of addiction, ego and self-psychology approaches and Jungian contributions. This chapter also briefly discusses "the addicted family" focusing on the ACOA literature, Steinglass, and Bradshaw. The last few pages of Chapter 3 briefly cover more recent approaches specific to the treatment of addiction in the context of family therapy. Levin mixes recent empirically supported approaches with older, less research-based treatments and even with approaches from the popular literature. This mixture is somewhat disconcerting to a clinical researcher, but does give a wide-angled view of the field. Approaches that focus on family therapy for adolescent substance abusers are also intermingled with treatments targeted for adults in couples therapy.

Chapter 4, in Part II of the book, presents a case study. The case of an adolescent marijuana smoker and his family is somewhat contrived, and the chapter is a bit forced, presenting hypothetical interventions by therapists from strategic, structural, intergenerational, experiential, behavioral, dynamic and "substance abuse" approaches. This chapter is saved by the author's clinical skill and chatty writing style, which make it interesting and useful for beginning family therapists.

Chapter 5 presents six case studies of couples therapy, and Chapter 6 describes three family therapy cases. All of these case studies are real, and here Levin demonstrates his skill as a couples and family therapist. These two chapters are interesting, more as a snapshot of a "master clinician" doing psychodynamic and systemic family and couples work than as a training tool for treating substance abusers.

In this book, the author hopes to connect the family therapy with the addictions therapy literature, to link theoretical context with clinical practice and to integrate psychodynamic and systemic clinical approaches to treating substance abusers in the context of family therapy. The result, largely due to Levin's relaxed and clever writing style, is an interesting, meandering read. One feels lost in detail at many points in Part I, however, and wonders occasionally why the word "addiction" is in the title of the book. The several case studies in Part II are fascinating, more because of Levin's seasoned psychodynamic and systemic interpretations and analysis of family therapy issues than because of generalizable information regarding substance abuse. Many of the therapeutic techniques here focus on more general therapy issues and seem to address actual treatment of alcohol and drug abuse only in a cursory way. In other words, one learns a great deal from this book about systemic and psychodynamic approaches to family therapy in general. Also, a nice overview of major family therapy approaches is provided. There is far less to learn about addiction and about how to