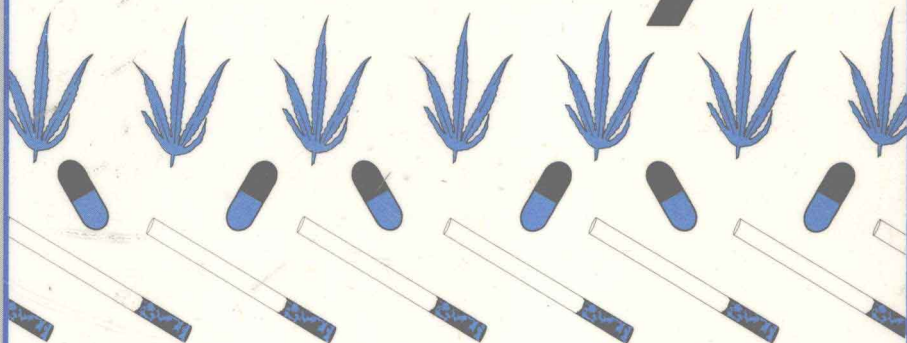


Drugs and Society



*Behavioral Medicines and
Abusable Drugs*

Arthur P. Leccese

DRUGS AND SOCIETY

Behavioral Medicines and Abusable Drugs

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This book is dedicated to two groups of people. The first group includes the two most important women in my life, Linda M. (Buechner) Leccese, my wife, and Doris M. (Braun) Leccese, my mother. The second group consists of my teachers, including especially Mrs. Lundgren, Dr. Cathy Galizio, Dr. Aaron Snyder, Dr. Doug Grant, Dr. Elton E. Quinton, and Dr. William Lyness.

PREFACE

Discussions of the effects of drugs on human behavior and society often result in heated arguments that make scientific evidence less important than emotion, prejudice, and mystical notions about the powers of “drugs.” The purpose of this text is to introduce you to the methodology and results of research aimed at providing scientific answers to the emotional questions surrounding study of the effects of drugs on human behavior and society. To accomplish this end, it is necessary to cover the widest possible range of drugs. Many textbooks cover only those drugs that are used and abused by the general population for recreational purposes. Other textbooks cover only those drugs whose physical and psychological effects are said to be therapeutic for behavioral disorders. This text provides a unique perspective on drugs that effect society and human behavior by applying a rigorously scientific approach to both of these categories of drugs.

In order to enable you to maintain a scientific perspective throughout the reading of this text, coverage of behavioral medicines precedes coverage of recreational drug use and abuse. This approach enables a clearer understanding of behavioral medicines by allowing discussion of key concepts without some of the emotional distractions associated with discussions of drug abuse. When these same concepts are reintroduced in later chapters dealing with recreational drug use and abuse, the scientific perspective gained in early exposures may allow you to more easily apply this perspective despite previous bias and prejudice. For example, by first focusing on why some patients refuse to take medication that is known to be effective in reducing the symptoms of a distressing behavioral disorder, it becomes easier to later understand the motivations of individuals who self-administer drugs sometimes in the face of obvious and profound negative effects. Consideration of the effect of method of administration upon the therapeutic effectiveness of a behavioral medicine can enable greater understanding of later discussions of the effects of method of administration upon the acute and chronic consequences of recreational drug use and abuse. An understanding of how societal views of behavioral medicines can increase or decrease their effectiveness can ease the task of determining which effects of abused drugs are influenced by the way these compounds are viewed by the general society. For a final example, early chapters provide knowledge about the influence of basic pharmacology and interactions with endogenous systems upon the side

effects and long-term use of behavioral medicine. This can later allow an easier grasp of the principle that understanding of the side effects and long-term consequences of recreational drug use and abuse also requires knowledge of a particular abusable drug's basic pharmacology and interactions with endogenous system.

No text covering such complicated issues can stand alone in the education of the individual. The text is designed to gently introduce the reader to facts from the fields of research design, abnormal psychology, learning theory, and physiological psychology that are necessary for a sophisticated understanding of the effects of drugs upon human behavior and the society in which we live. The first portion of the text provides a basic overview of the science of psychopharmacology. The first two chapters discuss the anatomy and characteristics of individual cells of the nervous system, as well as the way that these cells are organized within the anatomy of the nervous system. While these chapters are no substitute for a more thorough course on human anatomy and physiological psychology, they provide enough information for any reader to obtain full advantage of facts presented later. An entire chapter is then devoted to revealing the importance of understanding the basic pharmacology of any drug. All subsequent discussions of particular drugs include summaries of the basic pharmacology of that drug. A chapter that describes the ways in which drug effects occur and the ways in which scientists describe drug effects is followed by a chapter that discusses tolerance, sensitization, and physical dependence.

The second major portion of this book covers behavioral medicines used by physicians to treat behavioral disorders. An initial chapter details the history of treatment of behavioral disorders, the research methods employed in determining whether a medicine is safe and effective, and the various controversies that surround the issue of treating behavioral disorders with drugs. This initial coverage is followed by detailed presentations of facts and experiments about drugs used for a variety of behavioral disorders, including schizophrenia, depression, mania, anxiety, and hyperactivity. Although some other texts mention the use of psychiatric medicines in the treatment of drug abuse, this text is unique in that an entire chapter is devoted to this topic. There is a special emphasis upon applying the scientific methods used when studying other behavioral disorders to the special problems of using drugs to treat a disorder involving excessive self-administration of a recreational drug.

Further understanding of the use of drugs for the treatment of drug abuse can be gained by examining the final chapters of the text. In the first chapters of this final section, theories of motivations for use and abuse, medical assessments of the primary dangers of acute and chronic drug use, and the research methodology and system of classification employed by scientists to study these drugs are presented to remind you of the appropriateness of maintaining a scientific perspective. Subsequent chapters investigate the commonalities and similarities among and within different classes of abused recreational drugs. The text provides specific examples using representative compounds that reveal the characteristics of stimulants, depressants, hallucinogens, and phencyclidinoids.

There is simply no way around the fact that a complete understanding of the effects of drugs on human behavior requires the memorizing of specific facts, the acquisition of knowledge about research methods used to obtain these facts, and practice

at applying these facts about drugs to questions about the impact of drugs upon society and the behavior of individuals. Readers who take the time to memorize facts about basic pharmacology and interactions with endogenous systems will be rewarded for their efforts. Tables and figures have been strategically placed throughout the text to help you decide which facts must be memorized and to provide you with visual images that will aid your memory. Section summaries, chapter summaries, and review essay questions can help you decide whether you have paid sufficient attention to specific facts and their application to issues.

Throughout the text, your ability to comprehend information in any one chapter is based upon the assumption that you have understood material in previous chapters. Unless you have a strong background in learning theory, abnormal psychology, research methodology, and physiological psychology, it would be unwise to attempt to read any of Chapters 7 through 12 without having first read Chapters 1 through 6. Similarly, Chapters 15 through 18 are best read after having studied, at least, the materials in Chapter 1 through 6 as well as Chapters 13 and 14.

Some of what is stated in this book may be contrary to messages you have heard before from the media, your teachers, and drug abuse "experts." Whenever possible, references to the published literature accompanies statements of fact or interpretations of data. You are encouraged to examine this original literature at every opportunity. Doing so will provide you with a wealth of additional information, and will allow you to verify the accuracy of the presentation of information in this text. It is hoped that the study of this text will be only the beginning of your involvement in the scientific literature pertaining to behavioral medicines, abusable recreational drugs, and their effects upon individuals and society.

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