SCIENCE'S COMPASS

thriller is the kind of movie that keeps reverberating in the viewer's mind, and each iteration makes one examine preconceived notions in a different light. *Memento* is a movie for anyone interested in the workings of memory and, indeed, in what it is that makes our own reality.

References and Notes

- These characteristic features of hippocampal memory loss were described in the classic case of the patient H.M.: W. B. Scoville, B. Milner, J. Neurol. Neurosurg. Psychiatr. 20, 112 (1957); S. Corkin, Semin. Neurol. 4, 249 (1984).
- 2. Thanks to my colleagues R. Desimone and E. A. Murray for their helpful suggestions.

BOOKS: PHARMACOLOGY

Pathways to Dependency

Jack H. Mendelson

his book offers a fascinating, entertaining, and perceptive account of how politics, profit, and pleasure have shaped contemporary attitudes about psychoactive substances. Consider, for example, the history of caffeine consumption in the United States. In 1773, anger about unfair taxation and the control of wholesale tea prices by Britain prompted revolutionary Americans to dump English tea in the waters of Boston harbor. During and after the fight for independence, patriots preferred to get their caffeine from coffee and tea drinking declined. But the replacement of tea also reflected costs: low duties, the proximity of Caribbean and Latin American plantations, and the labor of Brazilian slaves helped coffee consumption rise to eight pounds per person per vear by 1859.

David Courtwright, a historian at the University of North Florida, authored an earlier book on opiate addiction in America. In *Forces of Habit* he reviews, with calm reason and humor, histories of the use and abuse of a complete spectrum of psychoactive substances including alcohol, tobacco, caffeine, opiates, cannabis, cocaine, and hallucinogens.

The author notes that connotations of abuse and addiction make the term "drugs" extremely problematic. But, he observes, "For all its baggage the word has one great virtue. It is short." So he uses it as a convenient name for the long list of psychoactive substances (natural, semisynthetic, and synthetic) that he discusses. These drugs can be mild or potent, and they can be used for medical, recreational, religious, or other purposes. Many of them have achieved licit and illicit status with remarkably re-

versible characterizations or distinctions—interpretations that often reflect local, national, or global political situations. Although Courtwright recognizes that each of these drugs can be abused, he rejects the idea that any are "inherently evil." He observes that "all are sources of profit" for at least some people; thus, they "have become, or at least have the potential to be-

come, global commodities." The author does not ignore individual responses that initiate and sustain drug dependence and abuse, but the emphasis throughout this excellent text highlights the political, economic, and social factors that have enhanced or attempted to reduce such behavior.

Courtwright presents a fresh and discerning discussion of contemporary issues



Fashionable drug use. When this drawing appeared in the 1920s, smoking was well on its way toward its current position as the world's most widespread and lethal form of addiction.

and problems surrounding both illicit and legalized drugs. Use of illicit drugs such as heroin and cocaine may lead to severe criminal penalties. In the United States, a considerable portion of the record numbers of individuals currently incarcerated were convicted of illicit drug possession. Nonetheless, the adverse social, economic, and health problems associated with the use of licit substances may be far greater than those due to illegal drugs. The enormous detrimental consequences of alcohol dependence and abuse are evident throughout the world. In some places, such as Russia, alcohol abuse currently poses a major national public health problem. Nicotine offers another example of the heavy medical and social costs of a legal drug. Even though cigarette smoking has noticeably declined in some population groups in the United States, Britain, and western Eu-

Forces of Habit Drugs and the Making of the Modern World by David T. Courtwright Harvard University Press, Cambridge, MA, 2001. \$24.95. ISBN 0-674-00458-2. rope, it continues to cause significant personal health problems such as lung cancer. At present, cigarette smoking among women, particularly younger women, appears to be increasing and the occurrence of fatal health consequences including lung cancer is accelerating. Courtwright addresses these issues with great care and compassion. His

helpful discussion of the public health aspects of legal drugs in contemporary society is quite up to date. Indeed, his astute review of the issues concerning cigarettes and women is supported by findings in the U.S. Surgeon General's March 2001 report *Women and Smoking* (see www.cdc.gov/tobacco/sgr_forwomen.htm).

I finished reading *Forces of Habit* shortly before the onset of this year's Passover holiday. So I was pleased to read the author's quotation from the Talmud: "wine taken in moderation induces appetite and is beneficial to health...Wine is the greatest of medicines." However, the Old Testament text of Genesis also discusses possible adverse consequences from the consumption of wine.

And Noah began to be a husbandman, and planted a vineyard: And he drank of the wine, and was drunken; and he was uncovered within his tent. And Ham, the father of Canaan, saw the nakedness of his father, and told his two brethrens without....And Noah woke from his wine, and knew what his youngest son had done unto him. And he said, cursed be Canaan; a servant of servants shall he be unto his brethren. *–Genesis* 9:20–25

It is not clear whether Noah's anger was due to his shame at being naked or to the alcohol abuse that led to his nakedness. Our perception of alcohol and drug abuse in contemporary society continues to reflect ambivalence about responsibility for the causation of problems and about the best procedures for correcting them. Forces of Habit enhances our understanding of the numerous conflicting social, economic, psychological, and physiologic processes that shape our use of psychoactive substances-factors that may either increase or, hopefully, attenuate drug dependence and abuse. I enthusiastically recommend the book to both scholarly and lay readers and congratulate Courtwright for his outstanding contribution to our fund of information concerning the causes and consequences of substance abuse.

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