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THE research project summarized in this book has been widely publicized and already has influenced scientific thought as well as public policy. In view of this fact, the major current significance of the book probably lies in its faithful and rather detailed accounts of research methodology and its very interesting overview of historical and sociocultural factors that influence marihuana use in the Greek isles.

The studies were undertaken in Greece by a team of scientists whose aim was

to determine if the long-term use of hashish is associated with behavioral, medical, neurological, psychological, or social deficits; if tolerance, dependence, or a withdrawal syndrome were demonstrable, and to define the pharmacological-behavioral relations resulting from hashish, marihuana, and pure THC- $\Delta$ -9 consumption. (p. 151)

The broad scope of these goals and the difficult challenges of such experimentation probably account for the rather long period that elapsed between the time when the studies were designed (1970) and publication of the completed work in book form (1977).

Although it may be argued that the sociocultural matrix for cannabis use in Greece is very different from that in the United States, several generalizations are drawn from the results that would appear to be valid for conditions that currently exist here. The authors provide a detailed analysis of the acute effects on cognitive and motivational processes and on physiological parameters. In addition, there is a clear demonstration of tolerance to  $\Delta$ 9-THC with chronic use. Reassuringly, there was no

evidence of brain damage or other medical complication even with heavy chronic use of hashish—a particularly potent form of cannabis. Perceptual/cognitive and affective factors were relatively unaffected by both acute and chronic use. There was no suggestion of psychiatric disability attributable to cannabis.

The major limitation of the research seems to be its reliance on a small sample. The issue of sample size also has been raised with regard to similar studies in Jamaica and Costa Rica. Statistical considerations are dealt with at

some length and the various factors that influenced the scientists' decisions are discussed. As always, the choice of sample size involved some compromises.

CHAPTER 1 contains a socioeconomic analysis of the hashish-using subculture in Greece. I was fascinated by this material and believe that the book would be worth buying for its opening chapter alone. In general, this work is an interesting and valuable contribution to our growing fund of information concerning the behavioral pharmacology of cannabis.

## Bridging the Gap

James F. Kavanagh and Winifred Strange (Eds.)

*Speech and Language in the Laboratory, School, and Clinic*. Cambridge, Mass.: MIT Press, 1978. Pp. xviii + 511. \$22.50.

Reviewed by LAWRENCE J. RAPHAEL

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THE oft-lamented gap between theory and application is as evident in the areas of speech and language as elsewhere. The situation is generally stereotyped as one in which teachers and clinicians are often unaware of what is taking place in the laboratory and seminar, or, if they are aware, wonder what such goings-on can possibly have to do with their immediate tasks. Analogously, experimenters and theoreticians are characterized either as being generally uninformed about classroom and clinical procedures, or as sneering at what they consider to be the ill-conceived and uninformed strategies

employed by those who are on the proverbial "firing line." The stereotypes are in some measure both confirmed and negated by this collection of papers, which represents the proceedings of the sixth conference in the Communicating by Language series, sponsored by the National Institute of Child Health and Human Development.

In an attempt to bridge the theory-practice gap, the organizers of the conference employed the basic strategy of commissioning nine pairs of papers on selected topics in speech and language. The plan called for the first paper of each pair to be a state-of-the-art paper written by a basic researcher (BR) and the second to be a discussion of the first, in terms of practical applications, written by a clinical researcher (CR). The general order of presentation is from the more physically based studies of speech production and perception to the more psychologically based studies of language. General discussions of each pair of papers by the conference participants are summarized in the text. An essay explaining the aims and strategy of the conference and one summarizing and evaluating it are also included. The book's end matter comprises a useful glossary of terms and separate indexes of names and subjects.

It is possible to evaluate a volume of this sort in two ways: (1) as an independent collection of essays and (2) in terms of the conference's objective to bridge the theory-practice gap. Viewed as a collection of essays, the book is a noteworthy and often impressive contribution to the literature. This, of course, is not surprising, considering the status of the contributors: Kenneth N. Stevens (BR) and Gerald A. Studebaker (CR) on the acoustic speech signal, James E. Cutting and David B. Pisoni (BR's) and Paula Tallal (CR) on speech perception, Katherine S. Harris (BR) and Ronald Netsell (CR) on speech physiology, Leija V. McReynolds (BR) and Ralph L. Shelton (CR) on infant-child speech production, Carl E. Sherrick (BR) and James M. Pickett (CR) on modes of communication for the hearing impaired, Lois Bloom (BR) and Margaret Lahey (CR) on language

development, John D. Bransford and Kathleen E. Nitsch (BR's) and Robin S. Chapman (CR) on language and comprehension, Robert G. Crowder (BR) and Edgar B. Zurif and Alfonso Caramazza (CR's) on language and memory, and George A. Miller (BR) and William Labov (CR) on lexical meaning.

These contributors, especially the basic researchers, have done an even-handed job of summarizing the state of knowledge in their respective areas. With few exceptions, current controversies and issues in theory and methodology are neither glossed over nor presented in an unbalanced, biased manner, regardless of the author's particular beliefs. Axes are left unground and sheathed. As a result, this book will prove especially valuable to scholars seeking overviews of approaches to speech and language study in which they do not themselves specialize.

Viewed as an attempt to bring the worlds of basic research and clinical practice closer together, the book is not consistently successful. The strategy of the volume works quite well in some cases but not in others, regardless of the intrinsic merits of a particular essay or brace of essays. An instance of success is provided by the pair of essays on infant-child speech production by McReynolds (BR) and Shelton (CR). McReynolds reviews current theories and the data supporting them, and includes a section on clinical implications. Shelton's discussion paper makes constant reference to the issues raised by McReynolds and includes several suggestions for clinical applications.

In contrast, the pairs of essays by Miller (BR) and Labov (CR) and by Sherrick (BR) and Pickett (CR), although excellent in themselves, do little to delineate possible interactions between theory and practice, albeit for different reasons: The Miller and Labov essays are weighted heavily toward theory and basic research, whereas Sherrick and Pickett discuss language modalities almost entirely from a practical-applied point of view. Moreover, there are several instances in which the researchers, their primary interests, or their essays do not fit neatly under the

headings "basic" or "clinical-applied." (Indeed, one wonders in what sense Labov can be considered a clinical researcher.) The result is that the discussion articles frequently do not deal directly with applications of theory to practice. Similarly, the theoretical-review articles do not always provide the sort of framework that might facilitate the type of discussion paper that the conference planners evidently had in mind. In the final, summary essay, James J. Jenkins, Alvin M. Liberman, and James F. Curtis note that the conference and this published record of it fall short of fulfilling the stated objective. They add, however, that indirect success in bridging the theory-practice gap can be claimed in that the present volume will provide a valuable source book for those who must train future clinicians and researchers. Their point is well taken, if there are enough teachers and clinicians around who can and will avail themselves of this book as a teaching resource or as a text. But the suspicion persists that since there is a theory-practice gap to begin with, the impact of this volume may be rather limited. Most of those attempting to bridge the gap in this book have started from the same side and go no further than mid-span. Readers whose interests and knowledge coincide with those of the contributors to the volume will discover a most useful and thought-provoking collection of essays. Most of those on the other side of the gap will have to wait for a different book. No doubt such a book will appear before much time passes. When it does, it will owe much to its precursor, *Speech and Language in the Laboratory, School, and Clinic*.

*To "know thyself" must mean to know the malignancy of one's own instincts and to know as well one's power to deflect it.*

—KARL MENNINGER  
Vogue

*But such is the strange order of things; trifling causes have always given rise to great events, and on the other hand great undertakings frequently end in insignificant results.*

—NIKOLAI GOGOL  
Taras Bulba