

the major components is treated comprehensively, and includes thought-stopping, attribution techniques, cognitive restructuring, covert control, and the like.

Finally, Mahoney turns to the philosophical and ethical aspects of the clinical applications of behavioral techniques, concluding with a definition of "empirical humanism," his own position.

THIS is a good book at the right time. Cognitive concepts have been increasingly employed by sophisticated behavior modifiers but we have lacked a proper synthesis of both the techniques

and their underpinnings until now. Mahoney presents reasoned arguments, marshals the evidence in impartial and comprehensive fashion, and does the whole in lucid and sober style. There are points with which we might quibble; measurement problems deserve perhaps more discussion than the author gives to them and the definition of empirical humanism is too general to provoke either enthusiasm or opposition. Finally, the book designer has failed to do justice to the significance of the work. Nevertheless, no serious scholar of behavior modification should fail to consider the matters that Mahoney has defined so well.

manifestations, and its often destructive consequences. Novaco's primary purpose, however, is to introduce an innovative emotion-modification program through which people with "chronic" anger-control problems may learn to regulate the onset, course, and behavioral manifestations of their anger.

In a scholarly manner, the author has drawn on social-psychological, psychophysiological, behavior-modification, and personality-assessment sources to develop an acceptable classification of the functions of anger, generate logically tight propositions for anger control, and design a program in which self-instructional (Meichenbaum) and desensitization/relaxation (Jacobsen, Wolpe) procedures would be used in the modification of anger arousal. Novaco is an experimentally minded clinician, thoroughly familiar with the methodological and statistical issues involved in the empirical evaluation of a therapeutic program. Moreover, he clearly belongs to the new generation of clinicians who are bent on demystifying the therapeutic process. Thus, the reader is given an unusually complete and explicit account of the hypotheses (including the rationale for their operationalization and the criteria for their acceptance or rejection), of the treatment procedures, and of the results (accompanied by elaborate statistical tests and tables). The study compared the effectiveness of four treatment procedures, administered in 11 hourly sessions: self-instruction (cognitive behavior modification), desensitization/relaxation, a combination of the two, and control. The relative benefits from these treatments to 34 people with anger-control problems were examined in terms of the participants' pre-/post-treatment physiological, "constructive coping," and self-rating responses to imaginal, role-play, and direct provocations. It was found that the combination of cognitive self-instruction and desensitization/relaxation was more effective than the other three treatments for all types of provocation and for most of the dependent measures. In addition, self-instruction was somewhat more effective than desensitization. (With hindsight, the latter result may not be surprising, since the success of desensitization/relaxation perhaps also

Good News for Angry People

Raymond W. Novaco

Anger Control: The Development and Evaluation of an Experimental Treatment. Lexington, Mass.: Lexington Books, 1975. Pp. xii + 134. \$14.50.

Reviewed by VLADIMIR J. KONEČNI

Raymond W. Novaco is Lecturer in Social Ecology at the University of California, Irvine. A PhD of Indiana University, he is primarily interested in the influence of cognitive factors on anger, aggression, and the experience of stress; psychotherapy research; community psychology; and criminal justice.

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PERHAPS as a function of the growing permissiveness concerning the analysis of private events in experimental psychology, the last 15 years have seen another of the periodic waves of interest in that "arch-epiphenomenon," human emotion. The study of emotion is presently an active research area where ex-

perimental social psychology, cognitive psychology, and psychophysiology complement each other reasonably well. A prominent place among the current research directions belongs to efforts devoted to the analysis of the role of cognition both in the interpretation of external antecedents of emotion (particularly those that are social in nature), and in the "labeling" of the resultant fluctuations of the physiological-arousal level. These research developments have clarified the nature of certain emotional states (e.g., anger) and also demonstrated that emotions are important mediators of many behaviors of interest (e.g., aggression).

Novaco's excellent monograph extends these promising trends to the psychotherapeutic domain. The focus of this short book (85 pages of text, the rest being appendices) is on the emotion of anger: the conditions under which it occurs, its behavior-mediating functions, its verbal and physiological

largely rests on appropriate cognitions and "self-talk," but without these being explicitly taught to the clients.)

DESPITE the obvious care with which Novaco designed and evaluated the program, his research strategy is not free of problems. Objections may be raised over the nature of the control treatment—a perennial problem in psychotherapy research. In addition, it is unfortunate that behavioral measures of aggression were not collected, at least in the laboratory, but preferably through unobtrusive measurement in naturalistic settings, in response to real or staged provocations. In general, there is very little information about the degree to which the treatments alleviated the participants' anger-control problems outside the laboratory. Participants were instructed to keep diaries, but this effort largely failed. A greater variety of data-gathering procedures was clearly desirable, and there should have been a follow-up. During the treatment itself, any observed decrease in anger-related incidents could be due, for example, to temporary changes in the behavior patterns of the participants' spouses and intimates, who are presumably aware of the nature of the therapy. Whereas such issues will have to be addressed eventually, Novaco's book nevertheless serves as a quite adequate first step. Moreover, the reader is disarmed by the author's explicit recognition of the problems and by the care with which conclusions are drawn.

To those with conventional ideas about the purpose of psychotherapeutic interventions, it may seem odd that a "normal" emotion—albeit experienced much too often—should be modified. The book contains persuasive arguments against such doubts. Frequent angry outbursts may seriously affect the quality of daily life of people who display them and of their families or coworkers. In addition, by gaining control over anger, a person may break a possible vicious circle consisting of anger, aggression, retaliation from family members, worsening of the family situation, more anger and aggression, etc. Thus, the program may serve a useful preventive function. Also, since the provocations themselves often cannot be eliminated, it seems impor-

tant to have a treatment program which focuses directly on the modification of anger, as the behavior-mediating emotion. Finally, the author outlines some possible applications of the program to areas as diverse and important as child abuse, essential hypertension, and the training of police officers for "beat" work, in all of which anger-control problems may be encountered. The possibility of such applications is very exciting; although here Novaco understandably engages in some speculation, the text remains scholarly and cautious.

OVERALL, this is a fine book that will please those who favor rigor in psycho-

therapy research. Novaco has fully accomplished what he set out to do; nevertheless, in view of his competence and ability to integrate diverse laboratory and clinical findings, it is a pity that he had refrained from writing a more extensive work. The book will be of considerable interest to clinicians, psychotherapists, and social psychologists. Despite its being a monograph (apparently based on a dissertation) and its terse style, the book could also be very useful as a supplementary text for a variety of undergraduate courses. Unfortunately, the publisher's pricing decision will probably prevent the book from serving this purpose.

Measuring Perception: A Handbook Volume in Search of a Diet

Edward C. Carterette and Morton P. Friedman (Eds.)

Handbook of Perception, Vol. 2: Psychophysical Judgment and Measurement. New York: Academic Press, 1974. Pp. xix + 556. \$29.50.

Reviewed by FRANK RESTLE

The editors are both Professors at UCLA and earned their PhDs at Indiana University, Bloomington. Edward C. Carterette is Professor of Experimental Psychology and a member of the Brain Research Institute. He spent a postdoctoral year at the Royal Institute of Technology (Stockholm), at Cambridge University, and at the Institute for Mathematical Studies in the Social Sciences (Stanford University). Carterette has also taught at UC Berkeley. He edited Brain Function: Speech, Language and Communication and coauthored (with Margaret Hubbard Jones) Informal Speech. Morton P. Friedman is Professor of Psychology. He was a NATO-NSF Fellow at the Psychological Laboratory in Cambridge (England) during 1967-68. Carterette and Friedman are coeditors of both the Academic

Press Series in Cognition and Perception and of Vols. 1, 3, 5, 7, and (in press) 4 of the Handbook under review.

Reviewer Frank Restle is Professor of Psychology at Indiana. A PhD of Stanford, he previously taught at Michigan State University. Restle has been a Fellow at the Center for Advanced Study in the Behavioral Sciences, an SSRC Faculty Research Fellow, and President of MPA. Restle is author of Psychology of Judgment and Choice and of Learning: Animal Behavior and Human Cognition and coauthor (with James G. Greeno) of Introduction to Mathematical Psychology.

WE all feel ourselves sinking beneath the billows of new research, and every new secondary source is eagerly grasped. Various secondary sources