
BOOK REVIEWS

Cardiovascular Reactivity and Stress: Patterns of Physiological Response.
By J. R. Turner. New York: Plenum, 1994.

Social Support and Cardiovascular Disease. Edited by S. A. Shumaker and
S. M. Czajkowski. New York: Plenum, 1994.

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These two recent additions to the Plenum Series in Behavioral Psychophysiology and Medicine may serve as complementary reference volumes for any scientist interested in the interface between behavior and cardiovascular disease. As a systematically designed textbook, *Cardiovascular Reactivity and Stress* is aimed primarily at student initiates with a psychophysiological inclination; lists of supplementary references at the end of each chapter are useful reference tools for the reader with specialized interests. As an edited volume, *Social Support* is designed for a more advanced audience, and its contributors represent a wide range of disciplines, predominantly social scientists. Both books are sophisticated and timely, providing a worthwhile addition to the library of any contemporary behavioral medicine scholar.

Turner's prolific involvement in the literature on cardiovascular reactivity makes him a well qualified purveyor of perspectives in this field, and *Cardiovascular Reactivity and Stress* is an extremely readable and well organized text. The book is divided into three sections, covering basic concepts (neuroendocrine and cardiovascular functioning, laboratory measurement of reactivity, and the pathophysiology of hypertension), the results of laboratory investigations of reactivity, and the validity of reactivity research (laboratory-field generalizability, risk identification, and intervention strategies). In each section, Turner is attentive to his target audience, as he is careful to provide the reader with a broad context and a detailed definition of terms. For example, he provides an overview of nervous-endocrine-cardiovascular interactions (Chapter 2) before walking the reader through the logic of laboratory stress-reactivity measurement (Chapter 3).

Turner's coverage of the validity questions in reactivity research is especially well done. He describes the existing evidence for the link between reactivity and hypertension in a scientifically responsible manner (Chapter 4), and he is careful to delineate for the reader alternative causal models that may explain this association. He is appropriately cautious, as well, in his recommendations for reactivity measurement. There is no reason to suspect, he suggests, that laboratory stressors need to be topo-

graphically similar to everyday situations to elicit responses that may be useful predictors of disease risk (Chapter 10). Turner presents a useful discussion of some of the complex methodological issues in interpreting laboratory-field generalization studies (Chapter 9). In discussing the evidence relating reactivity to cardiovascular risk, a broader presentation of cardiovascular disease processes other than hypertension would have been a useful addition (for example, coronary disease and left ventricular hypertrophy), but many of the methodological suggestions presented for using reactivity for risk identification (Chapter 10) have a broad applicability regardless of the specific disease end point in question.

Although cardiovascular reactivity is accurately depicted here as a multidetermined phenomenon (Chapter 2), involving predisposing genetic influences (Chapter 7) as well as more proximal neuroendocrine (Chapter 2) and personality (Chapter 8) factors, the reader might wish for some tightly woven proposals as to how these various determinants might be interrelated. There are also some loose ends with respect to the coverage of extraneous correlates of cardiovascular stress response. For example, Turner appears to dismiss the influence of task engagement and performance on stress-related cardiovascular responses (Chapter 5), even though his own careful measurement work has emphasized the importance of recognizing and controlling for this type of response determinant (Chapter 3). In all fairness, however, unanswered questions about the nature of cardiovascular reactivity are as telling of the current state of affairs in the field as they are of the coverage in this volume.

It is a challenge, indeed, to summarize the increasingly diverse literature pertaining to the topic of cardiovascular reactivity. As an introduction to the field, Turner's text is a superb resource; one can quibble with the itinerary, but all with interests in this area will find this an effective map of the territory.

Interest in the effects of social factors on cardiovascular disease has increased with the advent of increasingly consistent evidence linking social isolation with all-cause and specific cardiovascular mortality. *Social Support* grew out of a multidisciplinary conference, jointly sponsored by the NHLBI and

University of California–Irvine, that was designed to explore the concept of social support and its association with cardiovascular health. As with the Turner text, the outline of this book moves sequentially from theory to application, with five major sections covering background concepts and evidence, research issues, and intervention implications. In fact, however, there is a great deal of overlap in content across the five sections of this volume, and most of the chapters stand on their own. Although some of the chapters are summaries of ideas published elsewhere, there are a number of novel contributions, with an emphasis on some common themes. Highlights of the Shumaker and Czajkowski text include the interesting chapters on the sociocultural context of social support and the developmental processes linking social support and disease.

Dressler's analysis of the health effects of kin and nonkin social relationships across different cultural groups (Chapter 8) suggests that the cultural meaning as well as the content of social interactions may affect their impact on mental and physical well-being. In the research examining social support in the workplace, Johnson and Hall (Chapter 7) also argue for greater attention to the larger social context, such as the institutional structures that facilitate collectivity on the job. They present evidence from an epidemiologic sample showing that social support at work may operate jointly along with job demands and perceived control in predicting cardiovascular disease prevalence. This cross-sectional finding suggests a need to expand the demand/control model of job stress and cardiovascular risk.

There are several intriguing complementary chapters in this volume that emphasize the developmental processes potentially linking social support and heart disease risk. Cohen, Kaplan, and Manuck (Chapter 9) present several models depicting how various types of social support may plausibly operate during different stages of atherosclerotic development and in conjunction with different coronary heart disease end points. Emphasizing a similar thesis, Eil and Dunkel-Schetter (Chapter 13) provide interesting evidence highlighting the importance of different social processes at various stages of adaptation to and recovery from coronary events.

The psychosocial developmental trajectory is emphasized by Antonucci and Johnson (Chapter 2) in their call for an attachment approach to the construct of social support and by Whalen and Kliever (Chapter 10), who provide a cogent argument for the promise of primary prevention. This latter chapter includes a valuable review of the literature on social network-based interventions for health promotion in children and adolescents. In the final chapter (Chapter 11) examining developmental processes, Amick and Ockene employ a stages-of-change paradigm to identify social support processes that may be critical to different phases of health behavior change.

The variety of plausible conceptual models proposed in these chapters serves to underscore how little is currently known about the specific mechanisms by which social support may reduce disease risk or improve prognosis. Hazuda (Chapter 6) points out that future epidemiologic studies in this area must include well-documented measures with the potential for informing us about the processes accounting for social support effects. Intervention studies are potentially well suited to address mechanisms questions; it would have been useful in this volume, therefore, to have examined some of the more recent efforts in this area in greater detail (Gorkin, Follick, Wilkin, and Niaura [Chapter 12] and Dracup [Chapter 14] touch upon some of these data). Finally, paradigms involving controlled observation, such as experimental and animal models, are largely untapped resources in the effort to learn about mechanisms associated with social support–health relationships.

Shumaker and Czajkowski's book is a snapshot of a moving target, illustrating the current state of knowledge in a dynamic field. Initial studies, using brief instruments and gross health outcomes in large samples, are being superseded by a number of research strategies permitting greater theoretical and empirical resolution. Although the reader may emerge from this current collection with a dizzying sense of all that is still unclear, the models presented by a number of the contributors in this ambitious volume provide some important research agendas, useful focal points for enhancing our observation of social support processes and cardiovascular disease in the years to come.

The Structure of Emotion. By Niels Birbaumer and Arne Öhman. Seattle: Hogrefe & Huber, 1993.

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In the 1760s, the Scottish architect James Craig was commissioned to design New Town, a modern urban center in the outskirts of Edinburgh. Today, this elegant Georgian enclave remains a masterpiece of symmetry. New Town is a world of Georgian four-story houses, some in grids, others in crescents or in ovals, and still others in circles. All are punctuated harmonically with parks, plazas, and squares designed for use by everyone in the community. At its heart, New Town is subdivided into a series of rectangles, which contain orderly and graceful rows of eighteenth-century homes and public spaces. And within each of these rectangles lie smaller squares, each of

which provide yet smaller squares for use of the immediate neighborhood.

The Structure of Emotion is built on the same architectural plan. The volume is intended as a *festschrift* for Peter Lang. The 31 contributors are friends, colleagues, and former students. All share Lang's general theoretical framework. They, like Lang, assume that emotional phenomena are reflected in three major systems: verbal–cognitive, physiological, and motor. They are interested in valences and arousal levels rather than in individual affects. The researchers also share a set of beliefs as to how research on emotion should proceed. (They tend to take cogni-

tive and psychophysiological approaches to studying emotion.) Finally, the authors generally emphasize the clinical applications of their research.

This general theoretical framework is then applied to a trio of content areas: the organization of emotion in memory, the acquisition of fear, and emotion and reflex modification.

Within these general areas are 18 articles that provide painstaking, detailed summaries of individual researchers' recent programs of research on emotion. These articles will be most appealing to researchers who are themselves working on each of these topics. They are sprinkled with the technical details of special interest to scientists with closely allied research interests.

The strength of this book is also its weakness. It is a pleasure to read a text that demonstrates how one theoretical paradigm can be systematically applied to diverse topics. James Geer and his colleagues, for example, present a beautifully crafted

chapter reviewing cognitive approaches to human sexuality. Dieter Vaitl and his colleagues document the impact of the leitmotifs in one of Richard Wagner's operas (*Die Meistersinger von Nürnberg*) on concertgoers' emotions.

What is missing, then? Readers will wish they had a bit more perspective on Lang's approach. Lang's theoretical model is clearly presented by several of the authors. One wishes that Birbaumer and Öhman had provided (a) a chapter with some midlevel summary statements as to what we have learned from the extremely detailed research reports, (b) a brief summary of some of the current critiques of Lang's work, and (c) an evaluation of those criticisms, perhaps with some suggestions for future research.

The small squares of New Town, as it were, are produced in exquisite detail in this volume; we miss, though, its larger design and shape.

