caveat is that Stein's chapter does not bear directly on the issue he first raises—the existence of discrete processing modules.

Thompson's lecture is conversational in tone and rich in detail. He has posited that the mossy-fiber granule-cell parallel-fiber system and the climbing fiber system are learning and teaching units in the rabbit cerebellum. He goes on to claim, with evidence to support his position, that memory trace circuits are localized. Thompson's work is internationally recognized. I only wish he had added a section on the theoretical distinction between the classical conditioning paradigms, including eye blink, thought to be "procedural," and declarative or representational memory, which might involve diencephalic and medial temporal lobe neural systems in humans.

Dennis presents a model for conceptualizing the effects of brain damage in children. In her ambitious effort to create such a framework, the actual data to support her ideas are shortchanged. After creating the framework, she presents complicated data in a clear and focused way. For instance, she shows how the systems that are involved in the development of an ability may be different from those which sustain the ability. Regarding her work on early left hemisphere injury in children, I wish she had addressed the work of Smith and Chadwick, who did not find marked language deficits after such insults in children. Dennis also presents evidence for the etiology and neuropathology of language disorders based on factor analysis and multiple regression. Despite the rarefaction of data imposed by her statistical techniques, her results and conclusions are fascinating.

The process approach advocated by Kaplan for neuropsychological assessment is beautifully presented. The chapter is full of clinical pearls and abounds with figures and illustrations that perfectly make Kaplan's points about different types of cognitive failure. In short, Kaplan attempts to quantify subtle aspects of neurobehavior that are usually deemed qualitative. She discusses in depth her modifications of such well-known tests as block design, digit symbol coding, and the Rey figure. For instance, in block design she has found that breaking the configuration of a design is often associated with right hemisphere lesions. In digit symbol coding, she includes versions that assess purely motor speed, learning, and attention in order to break down the task into its cognitive components.

Using valid and invalid cues to measure covert shifts of visual attention, Posner demonstrates how "disengage, move, and engage" operations are mediated by the parietal lobe, midbrain, and thalamus. All studies use reaction time as a measure. Posner extends his interest in automatic and effortful aspects of attention in an elegant study of the successive cortical systems involved in reading silently, reading aloud, and generating uses for words. Posner also reports on his recent studies on schizophrenia in which he detected an abnormality involving the right visual field and the left anterior brain. These results have provoked controversy because it is unclear if they reflect a lateralized "lesion" or a bilateral "lesion" superimposed on a lateralized function.

All of the authors included in this book have made seminal contributions to the study of the relation between brain and cognition. The book will be especially worthwhile to advanced graduate students in neuropsychology and residents in psychiatry and neurology. Practitioners and researchers can gain important information from the lectures as well and have their theoretical ideas on how the brain works challenged in chapters presented with style and erudition.

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Contemporary Neuropsychology and the Legacy of Luria, *edited by Elkhonon Goldberg. Hillsdale, N.J., Lawrence Erlbaum Associates, 1990, 270 pp., $45.00.*

It would seem that it should be an easy matter to assemble a volume in honor of A.R. Luria. His interests were diverse, and his reliance on theory was explicit. Furthermore, he was able to inspire not only respect and admiration but also loyalty and affection. Contributors to the present volume either studied under his direction or believe that they apply his approach to neuropsychological analysis. In every case an interesting piece of work or thought is presented. And yet it cannot truly be said that any of these articles presents a continuity of Luria's approach, let alone the activity of a "school" inspired by him. This is because although Luria's clinical insights were often inspired, they were not based on the detailed experimental analysis and consideration of alternative explanations that are currently considered necessary in the science of neuropsychology.

Beyond advocating a process-oriented approach to case analysis, which many did before him, Luria has not initiated any new direction in neuropsychology. Three fine essays (by Goldberg, Cole, and Sachs) deal with Luria as a "cultural psychologist." Interesting as this perspective is, none of the empirical contributions to this book adopted it. The major theoretical statements—by Brown, Vaughn, and Goldberg—do not derive from Luria. It is revealing that no contributions take sides in any controversy in which Luria might have been involved. The two approaches that were dominant during his lifetime, the psychometric group comparison and the rigid connectionism, outlived him. If they are now in retreat it is because of advances in neurophysiology and cognitive science, many of which Luria foresaw but did not assist.

Luria's relative isolation in Moscow explains much of this. His legacy of insights and of the quality of character remains alive and well. The excellent book under review is witness to this fact.

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Neuromethods, vol. 17: Neuropsychology, *edited by Alan A. Boulton, G. Baker, and Merrill Hiscock. Clifton, N.J., Humana Press, 1990, 400 pp., $79.50.*

Neuropsychology is at the crossroads of the behavioral sciences (psychology and linguistics) and the neurosciences (neurology, neuroanatomy, neurophysiology, neurochemistry) and like them has experienced an exponential growth in the last few decades. New methods and technologies have revolutionized this field and provide, for the first time in history, the possibility of taking a look inside the "black box."

Some spectacular and revealing experiments (e.g., with the split-brain patient), together with the impact of the powerful and sophisticated brain-imaging technologies, may give a distorted sense of simplicity about the human mind, especially to the lay public (remember all the pop psychology about hemispheric capacities). Moreover, these experiments and technologies might lead to the naive belief that looking at fancy positron emission tomography (PET) scans will straightforwardly reveal the mysteries of the brain when nothing could be less true. This book is especially useful in pointing out the cautious attitude and the extreme rigorousness needed to deal with such powerful tools. Rigorousness is also needed in the experimental designs and interpretation of results.