
PREFACE

Twenty years ago, a behavioral neurology fellow in Gainesville called a cognitive science postdoc in Boston to discuss mental imagery in neurology patients. The conversation lasted well over an hour—or perhaps we should say it has lasted 20 years, with the parties on each end of the line moving from Gainesville to New York and from Boston to Pittsburgh to Philadelphia.

In addition to whopping phone bills, several collaborative projects resulted from this relationship. Among them was the McGraw-Hill textbook *Behavioral Neurology and Neuropsychology*, edited by Todd and Martha, now in its second edition and weighing in at a hefty 69 chapters. Some of these chapters focus on clinical concerns (when should you shunt for normal pressure hydrocephalus in the elderly?), while others address basic questions of cognitive neuroscience with evidence from neurological patients. Although scientifically minded clinicians appreciate the combination of approaches, there are many other readers out there with an interest in patient-based approaches to cognitive neuroscience who have never pondered when to shunt. For these readers, we reedited the book to produce *Patient-Based Approaches to Cognitive Neuroscience*.

The first edition of *Patient-Based Approaches to Cognitive Neuroscience* was published in 2000 with the following inscribed on its back cover: “Although cognitive neuroscience is sometimes equated with

cognitive neuroimaging, the patient-based approach to cognitive neuroscience is responsible for most of what we now know about the brain systems underlying perception, attention, memory, language, and higher order forms of thought including consciousness.” While imaging continues to attract the attention of scientists and the public, the intervening years have seen renewed interest in complementary approaches to studying the brain, including transcranial magnetic stimulation (TMS), genetic analyses, and patient-based approaches. The integration of these different approaches is our best bet for continued progress in cognitive neuroscience.

The trend toward a broader methodological base for cognitive neuroscience is apparent in the second edition of *Patient-Based Approaches*. In addition to the updated coverage of perception, attention, memory, language, executive function, and development, the new edition includes expanded material on functional neuroimaging of normal subjects and of neurological patients, electrophysiological methods including TMS, and the genetics of neurocognitive disorders.

In closing, we want to thank the many different people who contributed to making the second edition of *Patient-Based Approaches* even better than the first: the chapter authors, the editorial staff at McGraw-Hill and MIT Press, and in particular Barbara Murphy of MIT Press.