

thematically better with later chapters on assessment and technology.

If there was any doubt about the unifying theme of Part II, Part III, *Anosognosia Observed in Various Neurologic Disorders*, delivers in a straightforward fashion exactly what the section title promises. This part consists of six chapters that examine in turn Huntington's disease, Parkinson's disease, Alzheimer's disease (two chapters), traumatic brain injury, and schizophrenia. These chapters are excellent and leave the reader wishing more disorders were included, such as chapters on frontotemporal-lobar degeneration, multiple sclerosis, and epilepsy.

Part IV, *Anosognosia and Specific Cognitive and Affective Disturbances*, consists of three chapters that examine deficits in self-awareness and insight regarding one's own personality, feelings, interpersonal behavior, and processing of errors in one's own performance. While Chapters 14 and 16 specifically tackle these topics from the standpoint of deficits associated with neurodegenerative disorders and traumatic brain injury, respectively, Chapter 15 examines individual differences (along a continuum that spans normal, neuropsychiatric, and neurologic populations) in discrete cognitive processes, such as vigilant attention and awareness.

Part V, *Anosognosia and Hysteria*, includes one chapter that reviews theoretical and empirical literature on conversion disorder. Although the first two-thirds of this chapter focus virtually exclusively on anosognosia, the last third provides a comprehensive review of the relatively small body of research on hysteria. In the end, this chapter offers a neuro-anatomic model of awareness that integrates in an elegant fashion an array of disorders from anosognosia to kinesthetic illusions to hysteria, providing a viable framework for hypothesis-driven research and practice.

Together, Parts IV and V investigate topics that are rarely considered in neuropsychological conceptualizations of anosognosia, and provide a nice theoretical extension of the construct at hand. By bridging emotional and cognitive processes and considering individual differences outside of neurologic disorders, these two sections are aligned with the ever-increasing interest in cognition as an important contributor to personality and psychopathology.

Part VI, *Measurement Issues and Technology*, has two chapters that cover functional neuroimaging and behavioral measures of anosognosia. Although the title of Part VI gives

the impression that this section of the book will review the current methodology in the study of anosognosia, in reality, much of the first chapter focuses on a review of the results of select studies that examined substrates for self-awareness using functional imaging. Although this review of the literature is interesting and nicely integrated, it is only the last third of the chapter that reviews methodological considerations, and as such leaves the reader wishing for more. In contrast, the second chapter in Part VI provides a thorough overview of assessment instruments for anosognosia and related phenomena, and can serve as an excellent guide for researchers and clinicians alike.

Part VII, *Anosognosia and Visual Loss*, consists of one chapter that covers clinical, theoretical, and empirical accounts of Anton's syndrome, and proposes a taxonomy of syndromes characterized by unawareness of blindness or other visual disturbances. As is alluded to in the chapter, such taxonomy can greatly improve study design and can move our limited understanding of this syndrome forward.

Lastly, Part VIII, *Advances in the Study of Anosognosia*, consists of two chapters that together review the most recent empirical findings, methodologies, theories, and approaches to clinical management and rehabilitation. These two chapters provide an excellent integration of the topics found throughout the book and, in an effortless fashion, bring together science and clinical practice.

In conclusion, *The Study of Anosognosia* is a remarkably comprehensive text. Taken together, the chapters in this book cover most any aspect of anosognosia one could imagine, as they bridge cognition, emotions, and personality, and effortlessly integrate theory and practice. Each chapter truly stands on its own, as most chapters touch upon certain key topics, such as the history of anosognosia, the neuroanatomic underpinning, the principal models of anosognosia, and clinical implications. The downside, if it could be called that, is that there is some redundancy in the information provided in each chapter and that the thematic organization of the eight parts is not always immediately obvious. The upside is that this book gives each author an independent voice and avoids imposing a structure that could lead to biased or incomplete accounts. Once the reader "gets" what the book aims to accomplish, perusing each chapter becomes a delightful journey that is bound to leave the reader enriched and intrigued about anosognosia and beyond.

Sleepy Heads

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Atlas of Clinical Sleep Medicine. Meir H. Kryger (Ed.). (2010). Philadelphia, PA: Saunders Elsevier, 380 pp., \$145.00 (HB).

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The field of clinical sleep disorders blends naturally with clinical neuropsychology. Both specializations require intimate knowledge of neuroanatomy, working with tests and measurements, performing complex differential diagnosis,

and integrating multiple methods to inform clinical judgment. Modern neuropsychologists need to stay informed about the role of sleep disorders in cognitive function, as only a fool would deny the influence of alertness, sleep quality,

and hypnotic medication on test performance. For those readers who desire a crash course in sleep disorders, aided by rich graphic and Internet support, the *Atlas of Clinical Sleep Medicine* is just what the doctor (PhD) ordered. The *Atlas* is edited by Meir Kryger M.D., best known for his encyclopedic *Principles and Practice of Sleep Medicine*, now in its third edition. The 40 contributors are easily recognizable as prominent sleep researchers, including psychologists such as Thomas Roth and Hans Van Dongen.

Several chapters are particularly pertinent to our field. Biology of Sleep (Chapter 3) succinctly covers topics such as the brain's arousal and neurotransmitter systems, sleep drive, circadian timing, and control of REM sleep. The subchapter on brain blood-flow is supported by stunning graphics and charts. Normal Sleep (Chapter 4) provides the normative basis for distinguishing healthy from poor and abnormal sleep from the standpoint of ontogeny. In the context of a persistent post-concussion claim, symptoms of increased difficulty falling asleep and increased awakenings is not so deviant in somebody 70, but is reason for concern in a child of 12. Pharmacology (Chapter 5) provides useful tables summarizing important drug facts, such as the hypnotic medications most known for daytime ("hangover") effects. This would help the neuropsychologist who suspects a role for drugs in that mildly deviant Trailmaking B score. Neurological Disease (Chapter 10) summarizes the sleep issues associated with many disorders. Conditions covered include narcolepsy, restless legs and periodic limb movements, epilepsy, Alzheimer's disease, Parkinson's disease, and Huntington's disease. More controversially, the chapter examines sleep in fibromyalgia and treats it as a valid diagnosis. But the sleep correlates of the syndrome have not been replicated, and the diagnosis itself was abandoned by its physician discoverer.

Several chapters are especially helpful to neuropsychologists who specialize in psychiatric and forensic referrals. Dreaming (Chapter 6) is brief, but the reader learns much about dream pathology, the psychological and neuropathological conditions that cause it, and the clinical features to look for. For example, dream impoverishment can be associated with alexithymia and various brain syndromes. In contrast, excessive dreaming is an indicator of drug withdrawal. Sleep and Psychiatric Disease (Chapter 16) is especially useful for advice on using sleep patterns to aid in the differential diagnosis of disorders from the depressive spectrum. A good rule of thumb is that hypersomnia is more predictive of bipolar depression, while insomnia indicates

unipolar. Presentation and Diagnosis (Chapter 7) should prove very useful to full-time clinicians. Included are screening questions for insomnia and hypersomnia, symptom checklists, and self-report inventories (such as the Epworth Sleepiness Scale and Berlin Apnea Questionnaire). The Insomnia chapter (Chapter 9) is especially useful to readers who incorporate psychotherapy into their practice. It offers a complete guide to diagnosis, and advice on combining pharmacotherapy with cognitive-behavioral therapy.

Sleep apnea syndrome is to sleep disorder centers as mild head injury is to forensic neuropsychology: It dominates referral patterns and provides a reason for existence. Sleep Breathing Disorders (Chapter 11) is the longest chapter, and the focus is on polysomnographic interpretation. There are many pages of sleep epochs (a 30-s sleep sample) showing subtle and not-so-subtle abnormalities in respiratory effort and airflow, and many photos of noses, chins, and throats. This chapter is only for specialists wishing to seriously pursue a sideline in sleep disorders, but be forewarned: sleep medicine certification has been closed to neuropsychologists since 2005, when the American Board of Medical Specialties took over the formerly freestanding American Board of Sleep Medicine, a body originally founded with the help of experimental psychologists. This reviewer was "grandfathered in."

The *Atlas* has a unique teaching feature that is cutting edge: Online searchable text and 68 patient videos. The inside front cover contains a scratch-off activation code, that when entered at www.expertconsult.com, allows the reader to access galleries of videotaped interviews and sleep studies. The most interesting videos include an MS patient with sleep apnea and hypnagogic hallucination, and another patient with Parkinson's disease who demonstrates rapid eye movement (REM) behavior disorder. Other videos show plain vanilla snoring and obstructive apnea. I wish this educational technology had been available when I took the sleep boards in the middle 1990s.

The *Atlas of Sleep Medicine* is the perfect reference book for the neuropsychologist who needs a crash course, or a quick reference guide, when coping with the sleep laboratory report appended to a referral sheet. One chapter contains a guide to digesting the standard score summary sheet. There is little neuropsychology in this book, except for some data tables and graphs showing vigilance test scores plotted against various sleep parameters. But the gains in fundamental knowledge and professional vocabulary when dealing with medical colleagues are worthwhile.

Unique Application of Neuropsychology to Active Duty Service Members and Veterans

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