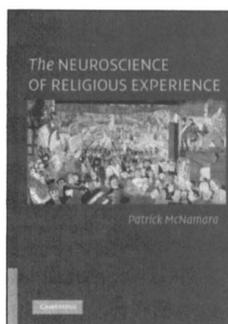


volume will be pleased with their ability to retain useful information from this well-structured, current review of topics important to neurosurgical residents, fellows, and consultants alike. Those appearing for their certification examinations, and those looking for a quick, ready reference on fundamental knowledge in neurosurgery would be wise to keep this volume on their bookshelf.

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**THE NEUROSCIENCE OF RELIGIOUS EXPERIENCE.** 2009. By Patrick McNamara. Published by Cambridge University Press. 301 pages. C\$90 approx.

Rated ★★



Prior to becoming a neurologist, my first career was in theology, spirituality, and comparative religion. Given my background, I am easily lured by the dialogue between religion and neuroscience, and I have a decent collection of books on the combined subjects. Surprisingly, I have rarely ever been able to finish reading a book that explores what should be a profound connection. Somehow I just can't get as excited by the combination of topics as I can by either topic alone.

I forced myself to finish reading Patrick McNamara's book, but unfortunately I again have been left feeling very dissatisfied by what should be a captivating conversation between science and religion. As Albert Einstein said, "Science without religion is lame, and religion without science is blind." Nevertheless, the dialogue between the two has once again left me feeling both lame and blind. Of course that may say more about me than about Patrick McNamara's book, but I will attempt to dispassionately explain what I liked, and what I did not like, about "The Neuroscience of Religious Experience".

I liked how the author develops an original theory of the self, the divided self, and the self's relationship to God. He describes a process which he calls "decentering" to which he applies a neurological model of familiar aspects of brain function, neurochemistry, and functional neuroimaging. The essence of his theory is that religion is a powerful tool which can allow an individual to "decenter" in such a way that allows self-transformation. McNamara presents some evidence that the "neurology" of religious experience occurs via the neural networks between the amygdala, the prefrontal cortex, and the anterior temporal lobes particularly on the right side of the brain. I liked this central thesis, and appreciated some of the ways in which he develops his theory.

Unfortunately this book is too much of a good thing. It is excessively wordy, painfully poorly written, and reads much more

like a PhD thesis in psychology than as a credible contribution to the literature of either neuroscience or religion. It probably deserves a place within the psychology literature, since this work is really a psychologist's treatise. For the neurologist there is very little recognizable "neuroscience", and for the religious person there is very little that inspires. The content of the book oscillates between pedantic psychological opinion on the "Self" and fragments of contemporary neuroscience, but there is little cohesive and substantial content to bind the author's message together. I think McNamara's points could have been made much more simply, clearly, and briefly, and that the key concepts in the book lose a lot of their potential power because they are lost in the translation. This may also be a reflection of some underlying muddled thinking and off-hand conceptualizing about topics that are by their nature mysterious and not necessarily within reach of the rational mind. It is almost impossible to engage in a dialogue between religion and science without reducing the mystery of existence and the human spirit to a mere biology of religion.

This book will join the other enticing and attractive books on religion and the brain on the shelf, but I think the money would be better spent helping widows and orphans.

*Edward J. Atkins  
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**CAROTID ARTERY STENTING: THE BASICS.** 2009. Edited by Jacqueline Saw. Published by Humana Press (a part of Springer Science and Business Media). 276 pages. C\$200 approx.

Rated ★★★★★

The editor intends this book to be "a learning resource on the multifaceted management of patients with carotid artery stenosis, with key focus on extracranial carotid artery stenting." It is meant to "complement the "hands-on" experience of interventional trainees and established interventionists."

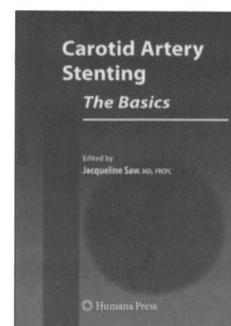
The book has six parts, each part authored or co-authored by neurologists, vascular surgeons, one radiologist, and interventional cardiologists.

The first part comprises known information about stroke and TIA, as well as a history of various trials and medications used to prevent or treat stroke. The reader is given an overview of carotid endarterectomy, technique and indications.

The second part comprises imaging, both pre-procedural and intraprocedural, of the arterial circulation, with sections on the catheterization laboratory, and on non-invasive imaging of the extracranial carotid circulation.

The third part describes patient selection, pre-procedural patient preparation, and operator training and accreditation.

The fourth part describes routes of vascular access for stenting,



angiographic anatomy, approaches for stenting, equipment. There is also a section on management of acute stroke in this part.

The last part describes complications related to stenting, and post-procedural monitoring and follow-up.

The individual sections are comprehensive, and the text and schematic figures are of good quality. However, many of the angiographic images are dark, or poor quality, suggesting that they are either low matrix images, cine mode or fluoroscopic loop stored images, rather than high-detail multi-frame digital subtraction (DSA) images. In a field where high spatial resolution, as well as high quality angiography, are essential, as described in the equipment needed in Part II, this detracts from the otherwise good quality of the book.

At the end of Part III, there is a short section on training and credentialing, which comes after the section on reimbursement. It does not relate to the Canadian health care system, or other jurisdictions, merely the U.S. system. In my view, this is a minor deficiency. There is a larger section on training and credentialing - Chapter 8 - in Part III, which is more comprehensive, detailing training requirements for operators.

The sections on anatomy (apart from images, described above) are good, and the technique sections are also good.

The index is adequate.

Overall, this is a reasonable introduction to carotid artery stenting, allowing for the suboptimal image quality.

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**NEUROTRAUMA AND CRITICAL CARE OF THE BRAIN.** 2009. By Jack Jallo, Christopher M. Loftus. Published by Thieme Medical Publishers, Inc. 485 pages. C\$215 approx.

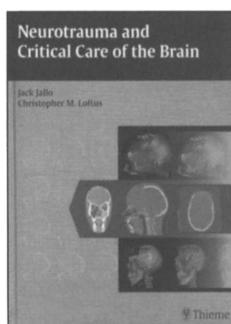
Rated ★★★★★

“Neurotrauma and Critical Care of the Brain” is a well compiled document on the current status of diagnosis and treatment of brain trauma. The team approach makes it possible for experts in the different subsections to write about each of those sections in an authoritative and up-to-date fashion. The subsections include:

- Epidemiology
- The Signs of Brain Injury
- Management of Brain Injury
- Critical Care
- Outcome
- Socioeconomics

Subdivisions in the book are very well organized. This lends itself to the book being used as a reference for current concepts in different aspects of neurotrauma. Of particular interest is the fact that most chapters have a summary of the content. Each chapter also has extensive references.

I particularly liked the fact that the authors include experts in Critical Care. They discussed different aspects of non-invasive,



and invasive monitoring. They were also able to separate concepts that are of research status from those that are of practical clinical value at this time.

“Mild brain injury” has become a major topic in recent years, especially as related to sports. This is often treated very lightly in books on brain injury. I was glad to note that a considerable space was spent on this subject, including a mention of the “Consensus Statement of the 2nd International Symposium on Concussion in Sports, Prague 2004”. Readers should of course note that there is now a “Consensus Statement of the 3rd International Symposium on Concussion in Sports, Zurich 2008”.

The section on “Introduction to Brain Injury Imaging” is very well done. Typical images of common types of brain injury are demonstrated. I would have liked a companion CD, or DVD, of more images that are described in the book, as well as all quoted references on the same CD.

Overall, I highly recommend this book for all who are interested in evidence based concepts in the management of patients with traumatic brain injury.

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**IMAGING THE BRAIN WITH OPTICAL METHODS.** 2010. Edited by Anna W. Roe. Published by Springer. 267 pages. C\$190 approx.

Rated ★★★★★

This volume is a good overview of the many uses of optical imaging to explore brain function. A wide range of methodologies discussed, and the techniques address research questions at different “levels of organization” (from intracellular imaging to systems level functional imaging of the brain). It is therefore likely that individual scientists will find only a few chapters directly relevant to their direct interests. For example, those looking at the cellular level will be interested in Chapter 2 concerning fluorescent sensors at the cell membrane level. Chapter 4 on somatosensory imaging will be of particular interest to those in exploring sensory-motor, but this section may also interest those dealing more generally with fMRI brain imaging.

Much of the book is concerned with optical imaging of intrinsic signals, with interesting applications of this technique include investigations of the representation of objects in monkey inferotemporal cortex and imaging of short-term working memory in prefrontal cortex (Chapter 5). A very interesting and useful methodological chapter is provided by Chapter 7, relating to intrinsic signal imaging in the human cortex intraoperatively. Another clinically relevant application of optical imaging, again relying on the detection of blood flow or a BOLD (blood oxygen level dependant) like effect, is provided in Chapter 8, which nicely

