Despite its limitations, this book may serve as a quick resource for identifying important medicolegal topics that a nurse or other health professional may encounter in providing clinical care. The authors also aptly identify local resources and professional organizations where a provider can turn for more information on select topics.

In summary, the authors accomplish their goal of examining topics in forensic medicine in a concise and easy-to-read format. Nurses and other providers new to the field may benefit from the variety of topics covered. However, for this readership, the book provides little guidance in the practice of forensic psychiatry. That being said, this readership may find it useful and informative to review the findings evident on physical examination and corresponding data collection and documentation associated with physical violence, such as in cases of battery or sexual assault.

References

1. Book of the Year Awards 2010: Gerontologic Nursing. Am J Nurs 111:67, 2011
2. Brown K and Muscari M: Quick Reference to Child and Adolescent Forensics: A Guide for Nurses and Other Health Professionals. New York: Springer Publishing, 2010

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A Primer on Criminal Law and Neuroscience

Edited by Adina L. Roskies and Stephen J. Morse. New York: Oxford University Press, 2013. 320 pp. $75.00.

Neuroscience has grown exponentially over the past two decades as a key interdisciplinary field informing behavioral science. Neurolaw has followed suit, as clinicians, lawyers, and philosophers attempt to incorporate the developing understanding of the neural substrates of behavior into current ideas about mind and criminal responsibility. The importance of these advancements was underscored in 2013, when the federal government announced funding for the BRAIN (Brain Research through Advancing Innovative Neurotechnologies) Initiative.[1] Philosophers have spent millennia conjecturing about the human mind, and neuroscience is now poised to expand our understanding of mind and brain. The implications of advances in neuroscience on our conception of criminal law and responsibility are the subject of *A Primer on Criminal Law and Neuroscience*, edited by Adina L. Roskies and Stephen J. Morse. This volume serves as a much-needed overview for nonscientists who are using neuroscience ideas in the courtroom. It is a product of a multiyear Law and Neuroscience Project funded by the John D. and Catherine T. MacArthur Foundation.

The editors make it clear that, although applications of neuroscience to jurisprudence are on the horizon, the integration of philosophy, law, and science is embryonic. Roskies, Associate Professor of Philosophy, who holds doctorates in neuroscience and philosophy, and Morse, Professor of Psychology and Law in Psychiatry, maintain a balanced approach, free of unrealistic claims. As Morse documents in the introduction, since we do not know the cause-and-effect relationships between brain and behavior, a reasonable entry point for neuroscience has been in mitigation of sentences in criminal cases. The proof of his argument is found in the Supreme Court decisions from 2005 to 2012 regarding sentencing of adolescent offenders (*Roper v. Simmons*, *Graham v. Florida*, and *Miller v. Alabama*). Morse's circumspect comment on the Court's views included, "[T]he citations appear to provide some legitimacy for using neuroscientific evidence in cases involving criminal responsibility, and perhaps more generally" (p xvii).

We appreciate the authors' reflections on how neuroscience, in particular structural and functional imaging, could be used to divert attention from more relevant concerns. Brain imaging is sexy science and may be meretricious in the court room. Even the best trained clinicians can be distracted by imaging findings that appear to speak for themselves. In Chapter 6, Morse and William T. Newsome use both philosophical and legal arguments to introduce potential ways that advances in neuroscience could refine our understanding of criminal responsibility, culpability, and competence. In this carefully constructed chapter, the authors present legal background and correlate it with respect to neuroscientific questions. It is essential reading for forensic psychiatrists. The authors articulate a key message of the text: association is not causation and causation is not an excuse. Further, they make and support the point that causation alone is not legally or morally mitigating.

Overall, the book is elegantly constructed, with each chapter broken into usable sections that make for both a good read over coffee and an easy reference

for casework or court preparation. Chapters 1 through 3 are devoted to neuroscience and neuroimaging basics. While nonreductionistic about mind-body relationships, the authors acknowledge the primacy of our understanding of functional neuroanatomy. This section clarifies limitations about structure-function relationships and individual differences in functional anatomy and articulates ongoing challenges in developing a more nuanced understanding of human brain function. Roskies gives a clear assessment of the limitations of imaging techniques, laying a foundation for appropriate skepticism when reading the functional imaging neuroscience literature. Complex ideas and data analysis are presented in a readable and lucid manner, providing a fresh understanding of how imaging and other techniques derive information on brain functioning. These early chapters are useful for all readers as a prelude to understanding the legal perspective on basic science.

Other contributions add to the book's value as a reference, with a thorough explanation of rules governing the admissibility of scientific evidence and a series of chapters later in the volume that detail implications of neuroscience in specific legal questions, including juvenile justice and criminal law. As a final commentary for the reader, Roskies and Morse look to the future of neuroscience and the law and review possible circumstances in which neuroscience may be used for criminal defenses. As they tie together threads from other chapters, they balance optimism and skepticism about applications to come.

The *Primer* serves equally well as an overview of neuroscience for the legal expert and a resource on pertinent law for the psychiatric or neuroscience expert witness. It occupies a niche between clinical neuropsychiatry[2] and applied neuroimaging.[3] Although, as the editors observe, applications of neuroscience are not yet widely accepted in legal proceedings, clinicians anticipating testimony in this area can use this book now.

References

1. Brain Research through Advancing Innovative Neurotechnologies (BRAIN) Initiative. Bethesda, National Institutes of Health, no date. Available at www.nih.gov/science/brain. Accessed December 10, 2013
2. Yudofsky SC, Hales RE: Essentials of Neuropsychiatry and Behavioral Neurosciences (ed 2). Alexandria, VA: American Psychiatric Publishing, 2010
3. Simpson JR: Neuroimaging in Forensic Psychiatry: From the Clinic to the Courtroom. West Sussex, UK: Wiley-Blackwell, 2012

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Side Effects: Not Guilty by Reason of Insanity and Unethical Behavior

Written by Scott Z. Burns. Directed by Steven Soderbergh. Produced by Scott Z. Burns, Lorenzo di Bonaventura, and Gregory Jacobs. An Endgame Entertainment, FilmNation Entertainment, and Di Bonaventura Pictures Production. Released in the United States February 8, 2013. 106 minutes.

In the opening scene of Steven Soderbergh's film, *Side Effects*, a blood trail is traced through a richly furnished room, leaving the viewer with questions typical of a whodunit thriller. What sets this film apart from others is that at the epicenter of the twists are abuses of psychiatry by both practitioner and patient.

The story is set in New York City, where the viewer is introduced to an affluent young couple, Martin and Emily Taylor (Channing Tatum and Rooney Mara, recently discussed in *The Girl with the Dragon Tattoo*[1]). The couple is reunited after Martin serves a several-year prison sentence for insider trading. Shortly thereafter, Emily, who has depression, unexpectedly makes an observed suicide attempt. She consults a psychiatrist, Dr. Jonathan Banks (Jude Law), who initially appears to be intelligent, competent, and caring. He prescribes an antidepressant as part of her treatment. When it appears that the antidepressant is not working, Banks requests the advice of Emily's former psychiatrist, Dr. Victoria Siebert (Catherine Zeta-Jones), regarding a pharmaceutical treatment. She recommends the fictional selective serotonin reuptake inhibitor (SSRI) Ablixa. Shortly thereafter, Emily begins to have episodes of somnambulism that are most likely caused by Ablixa, but she refuses to stop the medication because she finds it