Neurolaw and Responsibility for Action

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Neurolaw and Responsibility for Action is a multidisciplinary compendium addressing the new and controversial field of neurolaw. Chapters address whether connections can be made between modern research in neuroscience and legal responsibility. In other words, can various brain abnormalities be correlated with or causative of criminal behavior? Might such associations have legal ramifications and im-pacts on treatment or prevention? Contributors include those from the fields of law, neuroscience, philosophy, criminology, and psychology. From these disparate disciplines, the contributors debate the merits of linking brain and behavior in the courtroom.

In her introduction, the editor is careful to use qualifiers such as "may" or "might" when describing any such linkage. Chapters range from philosophical arguments, which are likely to be soporific to most forensic psychiatrists, to more practical sections including *mens rea/actus reus*, admissibility, the insanity defense, the Fifth Amendment, psychopathy, and lie detection.

Professor Michael S. Pardo of the University of Alabama School of Law critiques research claims that functional magnetic resonance imaging (fMRI) scans are useful in assessing when a defendant might be lying. In his chapter, Pardo takes issue with the artificiality of research and even the definition of a lie.

The most interesting part of Pardo's chapter is the discussion about *United States v. Semrau*, 693 F.3d 510 (6th Cir. 2012) and *United States v. Semrau*, 2010 WL 6845092 (W.D. Tenn. 2010). This case was the first attempt to introduce fMRI lie detection into a federal criminal trial. Dr. Semrau, a psychologist, owned two businesses that provided mental health care to patients in nursing homes. He was charged with multiple counts of money laundering and health care fraud. This concerned a scheme to defraud Medicare, Medicaid, and other government programs by submitting false claims for payments totaling nearly three million dollars. Dr. Semrau's defense was that he hadn't intended to commit fraud. Any mistakes in his billing, he claimed, resulted from confusion regarding unclear billing codes and instructions from insurance companies. He wanted to introduce fMRI evidence to prove he was not lying about being confused.

Dr. Semrau's expert, Dr. Steven Laken, was the CEO of Cephos, the company that produced the fMRI lie-detection results. The trial court prohibited the testimony under Federal Rule of Evidence 702, going through the four *Daubert* criteria. Dr. Semrau was convicted of three counts of health care fraud. He appealed on the grounds that the trial court erred in refusing to allow the fMRI results to be entered and in not allowing Dr. Laken to testify. The appeals court affirmed the trial court's decision, noting that the prosecutor was not informed of the test before it was administered. The court also expressed concern about any purported lie detection method introduced at trial. Pardo writes of conceptual problems related to defining a lie and criticizes research that purports to show the value of using the fMRI in lie detection.

In the following chapter, John Danaher, a lecturer in the philosophy of law in Galway, Ireland, writes that a specific type of electroencephalogram (EEG), detecting a brainwave known as the P300, has great value. This brainwave pattern occurs about 300 ms after a stimulus presented to a test subject. Danaher argues research has shown that when the P300 is present, it means that a subject's brain recognizes a stimulus. From this, writes Danaher, "Knowing that a person's brain recognizes information can help place their physical body at the scene of a crime (provided other potential exposures to the information can be ruled out). This is surely forensically useful . . . ." (p 177)

The final two chapters are devoted to psychopathy. The chapter by Elizabeth Shaw from the law school of Aberdeen University in Scotland is a discussion about possible "neurointerventions" that might offer useful treatment to psychopaths. She describes the implications of various treatments for psychopathy.

Neurolaw is an exciting area of investigation. Many books and papers present varying points of

view regarding its usefulness in the courtroom. It is important for forensic psychiatrists to be familiar with this subject. It is also necessary to cast a critical eye on current research and some assertions that enough is now known to assist the legal system in getting at the truth. There's a long road ahead, and neurolaw is not yet ready for prime time.

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Canadian Landmark Cases in Forensic Mental Health

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While doing forensic psychiatry training in Canada, it is difficult not to notice that landmark cases from the United States and other countries often dominate the conversation. These landmark cases have also made it into multiple books and chapters in easy-to-access compendiums. To date, however, there has not been a single comprehensive equivalent for Canadian landmark cases.

Drs. Graham Glancy and Cheryl Regehr have addressed this gap in their seminal book, *Canadian Landmark Cases in Forensic Mental Health*, providing an easily readable and logically formatted book allowing for optimal learning. Dr. Glancy comes with a wealth of experience, having played an instrumental role in the development of some of the case law mentioned in this book, including *R. v. Swain*, which led to new criminal responsibility laws in Canada. Dr. Glancy is also the past president of both the Canadian and the American Academies of Psychiatry and the Law (CAPL and AAPL), where he played a major role in developing the bylaws and ethics guidelines for Canadian psychiatrists practicing in forensic mental health. Dr. Regehr also has an illustrious career in administration and leadership in the fields of emergency medicine, mental health, law, and social work with multiple publications to her name, including seven books. She was the director of the Crisis Response Team at Toronto's Pearson International Airport and served on the mental health advisory board for the Department of National Defense and Veteran's Affairs Canada. Currently, Dr. Regehr is the Vice President and Provost at the University of Toronto.

Drs. Glancy and Regehr structured *Canadian Landmark Cases in Forensic Mental Health* into eleven parts, and each chapter contains a succinct review of the relevant case law. The chapters are clear and provide the reader with a deeper understanding of the underpinnings of the Canadian legal system and how it relates to forensic mental health. When applicable, the authors highlight critiques resulting from case law and how it should be applied. In addition, the chapters often conveniently conclude with a summary table useful to the trained forensic expert for a quick review of the key points highlighted.

The first chapter provides the reader with an understanding of Canadian law and how various landmark cases relevant to forensic mental health practice were developed across Canada. Chapter 2 considers the matter of expert testimony in the courtroom. Chapters 3 through 7 focus on the landmark cases related to various mental health defenses. Each chapter provides an excellent review of the Canadian landmark cases that any forensic mental health practitioner would need to know when practicing as a forensic professional in Canada. Although nothing is particularly new in the chapters, it was a good refresher and can serve as a ready resource for even well-experienced forensic professionals.

While the first seven chapters focus on topics that mainly pertain to psychiatrists and psychologists engaging in forensic mental health, chapters 8 through 10 are applicable to all mental health professionals, and chapter 11 focuses on professionals involved in civil law. Chapter 8 focuses on the evolving topic of access to treatment records, specifically as it relates to production orders and the implications in a mental health practice. Chapter 9 highlights the duty to warn and protect, including the *Tarasoff* decision in the United States and the Canadian case law that followed. Chapter 10 summarizes the relevant case law concerning consent to treatment, which