

Book review

The Brain Defense: Murder in Manhattan and the Dawn of Neuroscience in America's Courtrooms

By Kevin Davis
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The use of neuroimaging and other neuroscientific modalities to support a psychiatric defence in a criminal trial heralds the entrance of myriad legal, moral and philosophical issues into the courtroom. These are issues that characterise the interfaces between law, neuroscience and psychiatry. In the early 1990s, Herbert Weinstein was a seemingly unassuming advertising executive in his mid-60s charged in relation to his wife's death. He later confessed to having strangled her and throwing her body out of a 12th floor New York apartment. This was in an attempt to make the death appear like a suicide. The Weinstein case received considerable attention not only in the press but also in medical literature under the compelling alias, "Spyder Cystkopf" (Morse, 1995; Weiss, 1996; Jones *et al.*, 2014). At the risk of having already given quite a lot away, the interest was on the basis of subsequent neuroimaging findings that would form the grounds of his legal defence. Using the Weinstein case for context and as a platform for discussion, Kevin Davis sets out to introduce readers to the contentious issues that line the crossroads of criminal law, neuroscience and psychiatric practice. In doing so, Davis aims to illustrate their clear potential to vex the legal, medical and scientific communities alike.

To orientate the reader, Davis embarks on a series of digressions on various subjects such as the history of psychiatric defences in criminal law, the common law origins of the insanity

defence and the famous case of M'Naghten. Readers also encounter prominent cases and figures in terms of the history of the development of our understanding of traumatic brain injury such as Phineas Gage. Many non-specialist readers will at least be familiar with the relatively more recent high-profile case of John Hinckley Jr.

In relation to the advent of neuroimaging in USA courtrooms in recent decades, Davis' description of, for want of a better term, the apparent cottage industry of neuroimaging centres and groups of neuroscientific expert witnesses that have proliferated was striking. This was especially so from a European forensic mental health perspective. In the latter chapters, more topical related issues are considered. For example, in relation to domestic violence, the associations between post-traumatic stress disorder and military veterans and also between chronic traumatic encephalopathy and retired American football players are considered. It is the Weinstein case, however, and its peculiarities and progression through the USA criminal justice system that forms the unifying thread throughout the narrative of the text.

In terms of strengths, Davis' use of the Herbert Weinstein case to drive the narrative allows the reader to contextualise and more fully appreciate the historical origins, current practices and future challenges in relation to the use of neuroscience to aid a defence in criminal law cases. This case lends cohesion and affords readers the opportunity to reflect on complicated issues. In doing so, he has rendered a topic fraught with complexity and conceptual dissonance highly accessible not only to mental

healthcare and legal professionals but also to a generalist audience.

In terms of its limitations, it is mostly USA-focused and could have benefited from more international perspectives. Perhaps, also, greater diversity in the cases discussed would have added a fuller view of the current scope of uses of neuroscientific evidence in the courtroom.

Ultimately, the resounding message that emerges from the Brain Defense is that, in such contexts, and as it stands, the translation of neuroscientific advances generally falls down upon entering the courtroom. It seems that despite the complexity of the legal defences put forward by defence teams, neuroscience as applied in the majority of the cases considered has served to complicate rather than simplify the matter of criminal responsibility. Akin to behavioural economics, and indeed the author makes this direct comparison, perhaps its present utility is better thought of at a group rather than individual level. Based on our current knowledge, neuroscience and future neuroscientific advances would ostensibly seem to offer greater potential in terms of the following: more rational approaches to sentencing, improved risk assessment methods, the development of evidence-based rehabilitation programs, improved understanding and treatment of addiction and, finally, in making better parole decisions.

Although its full power in these domains may admittedly be quite a while away, its responsible application in the courtroom – in addressing individual responsibility – is further away still.

Professor Antonio Damasio, the internationally renowned neuroscientist and author famous for his work on emotions and decision-making, described Davis' book as "a brave and thoughtful exploration of an intractable problem." This encapsulates the achievement and I have no doubt it will serve as a useful starting platform for further exploration for many interested readers.

References

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Dr Owen P. O'Sullivan

Dr O'Sullivan is a fellow in medical education based at the South London and Maudsley NHS Foundation Trust, London, UK. He is a higher trainee on the North East London Forensic Psychiatry Training Scheme.