Since ancient philosophers first began to ponder the problem of criminal behavior, great minds in science and law have sought a single holy grail, the point at which the two fields intersect: What nervous or brain dysfunctions can explain how people become so incapacitated that they are not responsible for their own criminal behavior?

The latest candidate is neuroscience. With functional magnetic resonance imagery (fMRIs), positron emission tomography (PET scans) and other related methods, scientists can observe the brain in action as it responds to various forms of stimuli. Yet this is an obscure, highly specialized world; group studies in a laboratory, most scientists maintain, cannot yet be applied to the behavior of an individual, especially an individual’s commission of a violent crime.

But defense lawyers have rushed to bring brain scans into courtrooms. Some of what they propose is out-and-out chicanery; some may hold real value; whatever the
case, the job of piloting the public through the complex neuroscientific maze — in order that potential jurors may better judge whether a violent offender should be condemned to death, to a long or life sentence in America’s barbaric present-day prison system, or should have their sentences reduced or changed because of a brain irregularity or insult — is vital to society.

The latest person to offer his services as guide in this regard is Kevin Davis, in “The Brain Defense: Murder in Manhattan and the Dawn of Neuroscience in America’s Courtrooms.” Davis, a veteran Chicago reporter, is the author of two previous books, “The Wrong Man” (1996), an engrossing true crime account of a mentally challenged man falsely convicted of a savage murder in Florida, and the brilliant “Defending the Damned” (2007), a revealing portrait of Chicago’s public defenders. In both those works, despite Davis’s efforts to be evenhanded, he could not help but bring his natural proclivities toward the defense’s side to bear; and in those books, that proclivity was entirely appropriate. But is it here?

To answer that question, we can focus (as Davis does) on the case of Herbert Weinstein, a 65-year-old New Yorker, seemingly reserved in manner, who struck and strangled his second wife in 1991, then threw her (perhaps still alive) out of a 12th-story window to try to make her death appear a suicide. His family and friends were stunned; nothing in his life seemed to indicate that he was capable of such an act. When initially examined, he passed all the standard neurological and psychiatric tests for brain competency easily. But Weinstein had committed his crime in the era of M.R.I.s; and when he was scanned with one such machine, the results appeared shocking. He had a gaping space the size of an orange in the area of his left frontal lobe: the region that, it is generally agreed, governs impulse control. His defense lawyer, when the space was revealed to be an arachnoid cyst (a growth in the weblike lining between the brain and the skull), knew he had his defense.

And it worked — in the short term. When presented with the M.R.I. and other imagery, the prosecutor in the case decided that he could not press the murder charge. If the jury saw this apparent “hole” in Weinstein’s brain, they might bring in a verdict of not guilty by reason of insanity. So he agreed when Weinstein said he would not contest a lesser charge of manslaughter, and the judge decreed the minimum sentence of seven years. It was historic, the first time that brain imagery
had been used to mitigate the sentence of a confessed killer. But were the use of the images, the plea bargain and the sentence just?

Davis’s answer is ambiguous and perplexing, just as it is when he considers many similar cases — indeed, far too many, for a book of this length. Perplexing because Davis never adequately explores alternate behavioral theories (the work of forensic psychology) that were and are illuminating. There are general questions — such as the very large numbers of people walking around the United States with arachnoid cysts and other brain irregularities in their heads who never commit crimes or become violent — and there are questions specific to Weinstein. It turns out, for example, that the supposedly genial gentleman may have had financial motives (including gambling debts) for his well-to-do wife’s death, and that he had attended meetings of the Hemlock Society, a national right-to-die group that often discusses methods of suicide: methods that Weinstein may have found useful in covering his crime. And, perhaps most damning of all, the same forensic psychologist who discovered these and more incriminating facts before the plea agreement was reached, Daniel Martell, also found that Weinstein had been an overweight, bullied child, one who had struggled throughout his life to control an inner sense of rage often planted by such experiences. As if to demonstrate as much, it turned out that on the day of the killing, when he and his wife had been arguing about their respective children from their first marriages, his wife had been taunting him — about his grown son’s own weight.

Yet for all his conversations with psychiatrists, neuroimagers, neuroscientists and legal players (on both sides), Davis does not mention any interview with Martell. Nor does Davis weigh any assertions other than those of the defendant and his lawyer that Weinstein’s “brain made him do it.” And this is where one becomes, by the end of the book, perplexed. Long chapters are devoted to a far-ranging set of subjects, many unrelated or even irrelevant to Weinstein’s and similar cases: Tales of veterans with traumatic brain injury or violent football players suffering from chronic traumatic encephalopathy (examples that are particularly inappropriate, as those who suffer such injuries have generalized patterns of psychosis and/or violence, unlike defendants like Weinstein) are woven in and out of Weinstein’s tale with only moderate success. The reader forgets, sometimes, the rather spectacular subtitle of the book, and the fact that the book has a specific focus.
Most importantly, however, Davis fails to adequately explore or appreciate how “the brain defense” came back to haunt Weinstein, as it has so many similar defendants. Certainly, Weinstein’s initial sentence was reduced, and his life saved; but he was nonetheless sent to prison, and every time he came up for parole, he was denied, despite his age. The reason? The same brain defense. If his cyst had caused him to erupt into murderous violence once, how could anyone guarantee that it would not again?

No one could: For no neuroscientist has ever been able to diagnose the exact nature of a “brain-impaired” person’s behavior, nor give any prognosis for propensity toward future violence. Nor, in the opinion of most of the neuroscientists that Davis interviewed, will they be able to do so in the foreseeable future. Yet these are not the facts on which Davis chooses to conclude. Despite overwhelming evidence to the contrary, his closing words ring full of hope: “Accepting that our behavior can be influenced by brain injuries, disease, genetics and other abnormalities does have a place in our legal system, and neuroscience is an important adjunct that can be used responsibly to support it.” His experts are not so sure. Their caution is understandable; too many times over the last century, science has entered the courtroom heralding “advanced techniques” — forced sterilizations, eugenics, lobotomies and finally wildly misapplied psychopharmacological drugs — that have proved curses, not cures. Kevin Davis may be on the side of the angels, but prostituting science to sway juries for the purposes of the defense, however noble the intent, is in practice no better than the prosecution’s doing the same with what are increasingly being revealed as unreliable or manipulated methods of forensic science. But neuroscience continues to be wedged into cases by lawyers, improperly influencing justice just as abuses of forensics are doing for the purposes of the state, all the while further eroding our sense of civic participation: our belief that our own consciences should hold ultimate power over justice.

Caleb Carr is the author, most recently, of “Surrender, New York.”
Truth. It’s hard to find.
But easier with 1000+ journalists looking. Subscribe to The Times.
Basic
$2.75/week
Billed as $143 every year
Get basic
Basic Digital Access includes:
Access to NYTimes.com and all NYTimes apps

Unlimited article access, anytime, anywhere

Learn more ►

All Access
$3.75/week
Billed as $195 every year
Get All Access
Includes everything in Basic, plus:
Times Insider Access, including behind-the-scenes stories, exclusive events, podcasts, and e-books

1 complimentary digital subscription to give anyone you'd like

Learn more ►

Home Delivery
+ All Access
$6.93/week
Billed as $360 every year
Get Home Delivery
Includes everything in All Access, plus:
Customized delivery options such as Sunday only, Fri.-Sun., weekday delivery, or daily delivery

The weekly Sunday magazine and monthly T Magazine

2 complimentary digital subscriptions to give anyone you'd like

Learn more ►

*Home delivery price based on Sunday delivery.
Prices vary based on delivery location and frequency.