

which he must return home. But in this unexpected odyssey, he is sent to die alone in an ominous cathedral where he must purify his soul. He must undergo unimaginable trials until all his egoistic husk is burned away. Not only must he repent, but he must watch death approach while he experiences terror, sadness, and awe. He turns inward, first courting madness. After enduring much pain and uncertainty, he begins to summon his creative force.

Correctional metaphors abound. Nemo is on lockdown, where he must maintain an intense focus on the passage of time. He is, after all, a thief who is incarcerated in a space of unforgiving brutalist architecture, “for you it was a home, for me it was a cage.” Brutalism, from the French for “raw concrete,” yet again ties the prison-like apartment to William Blake: “Prisons are built with stones of Law.” Nemo’s necessary attention to food rations, escape, and unending hard labor is only briefly interrupted by seeing what appears to be New Year’s Eve fireworks celebrations, reminding him that the world outside has left him behind. He spends some of his time returning to art and sketching, as many incarcerated persons do, which provides him meaning. Life in prison has been compared with death itself.¹ There is the inexorable awareness of the passage of time and the lost opportunity to return to loved ones and freedom. At a certain individualized point, the person serving life may come to realize the importance of meaning and dignity of self.² Recall that Quakerism and the Pennsylvania system of solitary confinement were rooted in purification through theological pursuit.³ For many incarcerated persons today, meaning and dignity are found through art and creativity in all its forms. This seems to be the case for Nemo, who tells us at the beginning of *Inside* that, even as a child, he cherished art above all else. In the final moments, Nemo finds his meaning and dignity through art, even amid painful isolation.

Finding meaning is often at the heart of the forensic and carceral rehabilitation process. Art is a time-tested conduit for finding meaning, and art therapy has been utilized in carceral and forensic settings, particularly to assist with healing past trauma.^{4,5} There is a stark difference between reading about finding meaning and experiencing the process. Cinematically, *Inside* provides an up-close and unvarnished view of this process and how incarcerated individuals endure and survive in unforgiving environments. The movie serves as an intense reminder for forensic psychiatrists of the

importance of holistic mental health programs designed to enhance forensic patients’ human dignity, sense of meaning, and gratitude.⁶

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Brain Science for Lawyers, Judges, and Policymakers

By Owen D. Jones, Jeffrey D. Schall, Francis X. Shen, Morris B. Hoffman, and Anthony D. Wagner. Oxford, U.K.: Oxford University Press, 2024. 139 pp. \$99.00

Reviewed by Nathan Hendryx, MMAS, and Ashley VanDercar, MD, JD

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Key words: textbook; neuroscience; law; forensic psychiatry; expert

Brain Science for Lawyers, Judges, and Policymakers is a 139-page book, meant to be a primer on neuroscience and the law. It accomplishes this goal: it eloquently and succinctly details the contours of neuroscience and how it is relevant to the American legal system. Despite the book’s brevity, the authors manage to provide a rapid review course on brain science while explaining why legal professionals must use caution when linking seemingly objective neurological data to psychiatric impairments.

The book's authors are academics and researchers, with prestigious credentials and backgrounds in law and neuroscience, from across North America. They include the director and four members of the MacArthur Foundation's Research Network on Law and Neuroscience.

The book spans 10 chapters, each short in length and on distinct topics that can be easily referenced. Topics range from the cerebral cortex to functional magnetic resonance imaging (MRI). Each chapter starts with a legal case or concept that allows the reader to see the sometimes esoteric link between neuroscientific concepts and the legal system. Despite its brevity, the authors do justice to the subject matter complexity by providing accurate and brief explanations akin to what a stellar testifying expert would give on the stand. Each topic also has suggested reading lists with more nuanced foundational knowledge.

Chapter One outlines the existing ways that neuroscience is used in the law, including in civil law (torts, contracts, constitutional law, health law, family law, and probate), criminal law, and administrative law. The authors remain intentionally superficial in their discussion, highlighting a wide array of legal concepts with neuroscientific relevance. For example, the authors make note of the explosion of legal cases citing electroencephalograms (EEGs), increasing from eight cases in the 1940s to over 1,300 cases between 2020 and 2023. They also describe the increasing use and relevance of neuroimaging in tort cases involving alleged brain injury and in administrative cases, such as those involving Social Security benefits.

Chapter Two takes an anatomical approach, focusing on the nervous system and the brain itself, providing an orientation similar to that given to beginning anatomy students (e.g., how to use terms like rostral, caudal, dorsal, and ventral). In Chapter Three, after briefly introducing the neuron and its structure, the authors discuss the cerebral cortex, defining relevant structures and their roles. Chapter Four introduces readers to internal brain structures, their functions, and the relevance of their impact on legally salient topics, such as emotion, memory, and hormonal signaling. Chapter Five delves further into the physiological realm, describing how neurons work and the relevance of key neurotransmitters: dopamine, serotonin, norepinephrine, and oxytocin.

Chapters Six and Seven shift from basic anatomy and physiology to technology, including the relevance

and potential importance of technology (e.g., neuroimaging) in legal cases. Each modality is categorized as either a measure of structure or function. Chapter Six is dedicated to the assessment of structure (x-ray, computed tomography (CT), MRI, diffusion tensor imaging (DTI)) and Chapter Seven to function (EEG, positron emission tomography (PET), functional MRI (fMRI)). These lay the groundwork for a transition into Chapter Eight, which details various types of "brain changes," such as those caused by a brain injury, psychoactive drug effects, surgery, deep brain stimulation, or transcranial magnetic stimulation.

Chapter Nine, titled "Limitations and Cautions," is perhaps the most important chapter for forensic psychiatrists to read. It eloquently details, in a manner that echoes conversations often had with prospective retaining attorneys, the limitations of neuroscience and areas of caution when using neuroscientific evidence in court. The authors emphasize that the field, at least in its present form, is not yet able to fully understand or explain the complexities of the human mind. They highlight how each form of neuroscientific evidence must be carefully considered as to reliability, as well as probative value. The authors warn readers to be cautious when neuroscientific legal evidence is presented as conclusive, as opposed to "probabilistic." They also highlight the importance of remembering that "correlation is not causation" (p 107).

The book closes with the chapter, "Where We Might be Headed." It details five areas where the authors see the potential for neuroscientific advancements to particularly affect the legal system: chronic pain, diagnostic clarity, culpability, subjective reasonableness, and lie detection. In so doing, the authors maintain their previous caution, describing the chapter as "educated guesses."

Overall, this text provides a primer on neuroscience that is compartmentalized into medical and legal concepts; it is content-heavy yet an easy read. It is aptly titled and an appropriate addition to any legal professional's bookshelf. As is appropriate, it does not delve beyond the content of what an average medical student would keep in their class outline. It is not intended to replace expert consultation but nonetheless provides a great starting point for attorneys. Pertinently for our purposes, the way the text conveys information also makes it a great read for forensic psychiatrists, as it can be used as a guide for

how to converse with retaining attorneys, including salient points of caution.

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A Forensic Analysis of the Netflix Film *Hit Man*

Directed by Richard Linklater. Screenplay by Richard Linklater and Glen Powell. 115 minutes. Distributed by Netflix; Released September 5, 2023 (Venice); May 24, 2024 (United States); June 7, 2024 (Netflix)

Reviewed by Karen B. Rosenbaum, MD

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Key words: killing; entrapment; personality; intimate partner violence; philosophy

Richard Linklater's latest film, *Hit Man*, is a departure from his usual relationship dramedies, such as *Before Sunrise* and *Boyhood*. This film has more comedy and irony than drama or romance and yet also has deep and impactful moments touching on philosophy, the psychology of personality, the concept of entrapment, and attempted murder. It is also outlandish and far-fetched at times, but that is easily forgiven because of the heart-warming and flawed protagonist, Gary Johnson.

Gary Johnson (played expertly by Glen Powell of recent *Top Gun* and *Anyone But You* fame) is a unique and delightful combination of philosophy professor and undercover hitman in New Orleans. Gary, the philosophy professor, is a bit nerdy, single, loves cats, and has never killed anyone in his life. His alter ego, Ron, is a confident, more masculine version with slicked back hair and witty banter who likes dogs and has no problem picking up women.

In the beginning of the movie, Gary insists to the audience that Hollywood contract killers do not exist and that the people portrayed in movies like *The Professional* are not real. In fact, according to a piece by Skip Hollandsworth,¹ the movie *Hit Man* is based on the real experiences of a real contract killer named Gary Johnson who actually works for the police. Like Powell's Gary Johnson, Hollandsworth presented

the real Gary Johnson as having two cats, going by multiple aliases, and agreeing to kill whomever his jilted wife, ex-lover, or disgruntled employee client asks him to kill. The real Gary Johnson was originally from Louisiana, became a staff investigator for the Harris County district attorney's office, and was on call at all times for police departments in the Houston area.¹

In the film, after Gary teaches his class about identity, he has lunch with his ex-wife and friend, Alicia (played by Molly Bernard). Alicia, a therapist who studies personality, explains her belief to Gary that people can change their personality if they really try and act "as if." Alicia explains the Big Five personality dimensions that are found in the personality inventory for the Diagnostic and Statistical Manual of Mental Disorders, Fifth Edition (DSM-5), which include extraversion, neuroticism, agreeableness, conscientiousness, and openness or intellect.² Although Gary is skeptical that people can change, he is intrigued, and this idea of changing one's personality becomes the theme of the film. Ironically, Gary's ability to take on different aliases for his different clients are an example of changing one's personality at least temporarily for an external goal.

To help catch the people who hire him, Gary is wired with the police in a nearby van. He meets the client at a diner called The Please U Café and solidifies the contract, including the money exchange with the client. Before Gary leaves, he has the clients say out loud their intention to have Gary kill their intended target. When the unsuspecting subject leaves the café, the police come up and give the *Miranda* warning. At trial, the defense attorneys claim that Gary is the cause of their arrest and use entrapment as the defense.

According to the Texas Penal Code §8.06:

(a) It is a defense to prosecution that the actor engaged in the conduct charged because he was induced to do so by a law enforcement agent using persuasion or other means likely to cause persons to commit the offense. Conduct merely affording a person an opportunity to commit an offense does not constitute entrapment. (b) In this section "law enforcement agent" includes personnel of the state and local law enforcement agencies as well as of the United States and any person acting in accordance with instructions from such agents.³

Because the clients' requests of Gary are self-initiated, occur in a public place, and involve an exchange of money all before the police become involved, this defense rarely works. In addition, the U.S. Supreme