THE PROBLEM WITH FEARING THE UNKNOWN: A RESPONSE TO DAVID OPDERBECK’S THE PROBLEM WITH NEUROLAW

The popular idiom “don’t judge a book by its cover” is equally as applicable to law journals—you can’t always rely on an article title alone to provide an accurate reflection of the actual subject-matter discussed within. The title of David Opderbeck’s article, The Problem with Neurolaw, suggests that it will be a critique of the emerging field of reductive neurolaw. This field studies what effects new discoveries in neuroscience should have on the way we make laws, punish criminals, and develop rehabilitation programs. Indeed, Opderbeck does initially focus his critique on the work of David Eagleman, the Director of the Initiative for Neuroscience and the Law at the Baylor College of Medicine in Houston, Texas, and a prominent advocate for neurolaw. However, the article is quickly consumed by a general critique of scientific reductionism as a whole, of which reductive neurolaw is simply the most recent and popular manifestation. Although Opderbeck’s hostility towards this emerging field of study is palpable from the start, he does make a half-hearted attempt to provide context for his critique.

First, Opderbeck discusses two paleoanthropological narratives which theorize on the “cultural explosion” that led to our modern sense of “self.” As most anthropologists seem to agree, what separates modern humans from our

2. Id. at 500. Eagleman’s work is focused on a simple question—just how capable are we to make decisions in our daily lives? Or to put it another way, are we as humans really free to choose what we do, or is it all pre-determined for us through subconscious cognitive processes?
3. Id. at 501 (describing Eagleman’s view of human nature as “near-mechanistic” and his vision of the legal system as “ultimately frightening”); See also id. at 519–22. Furthermore, towards the end of his article, Opderbeck draws the comparison between neurolaw and a “state of exception” and between this state of exception and the Nazi concentration camps. Id. at 535–37. This author can’t help but conclude that Opderbeck is attempting to compare neurolaw to Nazi Germany, which is not a stretch considering Opderbeck’s earlier comparisons. See Opderbeck, supra note 1, at 520 (comparing the possible paradigm brought about by neurolaw to Aryan supremacy, Communist China, North Korea, and Orwell’s “1984”); See generally id. at 519–26 (where Opderbeck devotes the entire “Part III” of his article to demonstrating why reductive neurolaw represents a form of neuro-fascism).
4. Opderbeck states that “[s]ince neurolaw purports to be rooted in human evolutionary history, it might be helpful to examine what, in evolutionary terms, it means to be ‘human.’” Id. at 503 (emphasis added).
5. Id. at 503–06.
hominid predecessors are our cognitive abilities. Specifically, it’s our capacity for abstract thinking, innovation, and planning. Or, as Ian Tatterson proposes, it’s our ability to infuse our thoughts and creations with symbolism. What led to these abilities is referred to by paleoanthropologists as a “cultural explosion,” but what caused it remains a mystery. Although Opderbeck mentions the leading theories of “language” and of “mind,” both of which contemplate the evolution of human cognition, Opderbeck takes issue with the leading paleoanthropologists in this field. He criticizes them for their rejection of transcendence as a means of describing the evolution of the mind, and hints at his own Aristotelian theological virtues when he suggests that “a concept of causation [...] could encompass ‘evolution’ as part of an act of ‘creation.’”

Second, Opderbeck discusses the reductive sociobiological narrative which also strives to distinguish the evolution of the human mind from any concept of transcendence or “a higher power.” Again, to the astute reader, Opderbeck’s own disapproval of reductive sociobiology is quickly discernable. He is unpersuaded that Darwinian evolution can explain every aspect of human nature, mocking this theory as an “evangelistic program” and “Darwinian fundamentalism.” Furthermore, he describes a neuroscientist’s view that human perception is reducible to the firing of individual neurons as “one of the more absurdly imaginative inventions of materialistic reductionism.”


8. Opderbeck, supra note 1, at 504–05.

9. Id. at 504.

10. Id. at 504–06. The “language” theory posits that the homo sapien cognitive transformation was likely a product of “children stretching their minds through play.” It relies on the presumption of a pre-adapted brain capable of forming complex connections, an increased capacity for working memory, and an “intuitive” human nature. Conversely, the “mind” theory draws a comparison with a computer, and posits that there must have been “a new way of connecting the diverse modules of the early human mind so that they could communicate and coordinate with each other in new ways.”

11. Id. at 506.

12. Id.

13. Opderbeck, supra note 1, at 508.

14. Id.

15. Id. at 510, n.102. Opderbeck calls this theory of human cognition, which he dismisses as absurd, “memeology,” but he fails to tell the reader just what a “meme” is. Granted, as
Opderbeck ends his discussion of reductive sociobiology with the extreme assertion that, under this narrative of the human mind, “there is no intentionality and no ‘law.’”\textsuperscript{16}

Finally, Opderbeck devotes a portion of his article to the philosophical genealogy of reductive neuroLaw. He begins by stating that “[t]he drive to make the law ‘scientific’ is not in the first instance the result of any empirical observation of evolutionary biology or neuroscience,”\textsuperscript{17} but is instead “rooted in the broader intellectual movement towards legal positivism and instrumentalism.”\textsuperscript{18} Opderbeck first shares one lineage theory of the schism in Anglo-American law—where it became “unmoored from any transcendent source and began to occupy the place of a ‘science’”—as beginning around the scientific revolution and the Enlightenment.\textsuperscript{19} But he soon offers what is evidently his own belief. Opderbeck argues that the roots of the drive towards scientific law “reach deep into theological movements of the late medieval scholastic period, particularly nominalism, voluntarism, and the move towards a univocal understanding of God’s being.”\textsuperscript{20}

Thus Opderbeck traces reductive neuroLaw all the way back to the metaphysical presuppositions about God and creation in the Middle Ages.\textsuperscript{21} He specifically focuses on the “univocality of being” idea contemplated by the

\textsuperscript{16} Opderbeck, supra note 1, at 511. Opderbeck offers no insight into the inferential leap he made to arrive at this conclusion.

\textsuperscript{17} Id. Not only is this claim unsupported, but there is actually evidence to the contrary. See, e.g., Abigail A. Marsh & Elise M. Cardianle, When Psychopathy Impairs Moral Judgments: Neural Responses During Judgments About Causing Fear, 9 SOCIAL COGNITIVE & AFFECTIVE NEUROSCIENCE 3-11 (2014); Vaughn R. Steele et al., Brain Potentials Measured During a Go/NoGo Task Predict Completion of Substance Abuse Treatment, 76 BIOLOGICAL PSYCHIATRY 75-83 (2014); Henry T. Greely, Mind Reading, Neuroscience, and the Law, in A PRIMER ON CRIMINAL LAW AND NEUROSCIENCE 120 (Stephen J. Morse & Adina L. Roskies eds., 2013); Benjamin J. Shannon et al., Premotor Functional Connectivity Predicts Impulsivity in Juvenile Offenders, 108 PROCEEDINGS OF THE NATIONAL ACADEMY OF SCIENCES OF THE UNITED STATES OF AMERICA 11241–45 (2011).

\textsuperscript{18} Opderbeck, supra note 1, at 511. Opderbeck describes “legal positivism” as a theory of law in which “the law is simply whatever the authority with the power to enforce it says it is.” Id. He states that legal positivism “is readily twinned with legal instrumentalism,” which he describes as a view of the law “as a tool for achieving end that are essentially infinitely malleable.” Id. at 511–12.

\textsuperscript{19} Id.

\textsuperscript{20} Id. at 512.

\textsuperscript{21} Opderbeck, supra note 1, at 512.
philosopher-theologians of that era, which presumes that God’s being is univocal with the being of creation.22 In other words, it is the idea that God is a being just like the rest of us. Opderbeck notes that such reasoning led to a decreased sense of God’s absolute transcendence over creation, as well as a diminished “need” for God as a causal agent in our lives.23 He hints that such reasoning was appropriated and transformed by the doctrines of nominalism and voluntarism, and that these philosophical trends ultimately led to the notion that the rule of law is reducible to power and will.24

As an example, Opderbeck jumps forward in time to the works of Justice Oliver Wendell Holmes. Opderbeck argues that for Holmes, “the law . . . had nothing to do with morality.”25 Holmes didn’t believe that law could deter someone “who finds reasons for conduct . . . in the vaguer sanctions of conscience.”28 Instead, he believed that law exists to deter the “bad man,” who cares only about the material consequence which he can foresee.27

Before moving into the final stage of his reductive neuroLaw genealogy, Opderbeck notes how Holmes wanted legal dogma to be explained by research rather than history, and how he encouraged lawyers to seek an understanding of economics to further that ideal.28 Opderbeck seems to suggest that Holmes’ vision came true. His examination of the contemporary history of American legal thought begins with an introduction of the law and economics movement.29 Opderbeck described how this movement, which purports to offer a “scientific” analysis of legal rules, has been the reigning paradigm for legal scholarship.30 But he quickly notes how in recent years, this movement has witnessed a significant shift occasioned by the rise of behavioral economics, and how this in turn has spawned a robust new sub-discipline of behavioral law and economics.31 Opderbeck concludes that reductive neuroLaw is but a final manifestation of this lineage of thought.32

Unfortunately, the remainder of Opderbeck’s article offers very little constructive criticism of neuroLaw. In fact, the thrust of the entire article seems to be a general pandering to the deeply engrained sense of entitlement shared by most of humanity. Opderbeck repeatedly makes references to the

22. Id. at 512–13.
23. Id. at 513.
24. Id. at 512–14.
25. Id. at 516.
26. Opderbeck, supra note 1, at 516.
27. Id.
28. Id.
29. Id. at 517.
30. Id.
31. Opderbeck, supra note 1, at 518–19.
32. Id. at 519.
human “uniqueness” and to some “transcendence” that surrounds us, but these are such nebulous concepts. It is difficult to understand what Opderbeck is really trying to criticize about neuroLaw expect for its very attempt to give a more definite and precise meaning to our concept of “being.”

Ultimately, Opderbeck’s criticism of neuroLaw is summed up by just a few paragraphs, where he argues for a revitalized sense of Aristotelian causation in law. He begins by quoting lines from Aristotle’s treatise, “On the Soul.” Opderbeck emphasizes that although Aristotle stated that the “soul” and the “body” are inseparable, he never equated the soul with bodily functions. Instead, for Aristotle the soul was the cause of the living body – it was the source, the end, and the essence of life. Similarly, Opderbeck believes that when we speak of “law,” we must speak of it “as having some transcendent telos, some source that also implies its ends.” And according to Opderbeck, “reductive neuroLaw by definition offers no such transcendent sources or ends.”

However, there is plenty that reductive neuroLaw can offer us, as Opderbeck, himself alluded to earlier in his article. For instance, some of the research projects ongoing at the Initiative on Neuroscience and Law at the Baylor College of Medicine include the use of neuroimaging to predict recidivism rates, as well as offering real-time brain feedback during drug

33. See, e.g., id. at 506 (criticizing paleoanthropologists for “recoil[ing] from the implications of their observations for any concept of transcendence”); id. at 508 (criticizing reductive sociobiology for failing to appreciate the “modern human uniqueness”); id. at 509 (emphasizing that a sociobiologist “admits that humans possess a unique capacity to construct their own social environments. . .”); Opderbeck, supra note 1, at 511–21 (generally suggesting that as “the law becomes severed from any transcendent source[,]” it begins its downward trajectory towards power and the will of man, not God, thereby creating the possibility of a neuroscientific totalitarian state); Id. at 526–28 (Opderbeck first asserts that “a transcendent concept of ‘law’ is a human universal” and that “the capacity to formulate ‘law’ seems uniquely human.” But he later states that “[s]ocial rules are not a uniquely human trait” and that “social ordering is a pervasive feature of the animal kingdom.” To which I would ask, what’s the difference? Isn’t “law” just a system of social rules we’ve created to create some order in our society? But I suppose this is reducing law to its essential function, and that is precisely where Opderbeck and I differ. He wants the “law” to be something greater, something that transcends mere social rules.) See, e.g., id. at 528–29 (asserting that “social order” is a very different concept from “law,” and suggesting that “an essential part of what makes us ‘human’ is just this sense of transcendent ‘law[,]’”).

34. Id. at 533.
35. Id. at 533-34.
36. Opderbeck, supra note 1, at 534.
37. Id.
38. Id. at 498.
rehabilitation programs. The Center of Law and Neuroscience at Vanderbilt University is conducting brain imaging studies that will help to improve the detection and classification of defendant mental states, and will further our understanding of how individuals process information on risk and reward when engaging in criminal acts. And these are just the examples from academia.

In the words of David Eagleman, “we [may] eventually think about bad decision-making in the same way we think about any physical process, such as diabetes or lung disease.” In fact, that is the idea behind Cure Violence, an initiative out of Chicago, Illinois, whose goal was to reduce the shootings and homicides in the city’s most violent communities. The program treats violence—or more specifically, violent behavior—as an infectious disease. It operates on a healthcare model, utilizing the same three components as are used to reverse epidemic disease outbreaks: (1) detecting and interrupting transmission of the disease, (2) identifying and treating the highest risk groups, and (3) changing community norms. Since its inception in 2000, the program has expanded to sixty-four sites among twenty-two U.S. cities and seven countries.

Moreover this discussion should not be limited to a discourse on the role of neuroscience in criminal law. As neuroLaw grows in influence, it could potentially revolutionize our notions of other legal topics as well, including mental health law, intellectual property law, consumer law, and employment law.

In conclusion, notwithstanding my numerous disagreements with his views, Professor Opderbeck’s critique of reductive neuroLaw does provide an important service. It reminds us that since the moment our “cultural explosion”

occurred, our notions of “being,” of our concept of the “mind,” and our theory of “law” has always been evolving, and so it will continue to evolve.

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