

Stephen J. Morse

## The Perils and Promise of Law and Neuroscience

Stephen J. Morse delivered Marquette Law School's annual George and Margaret Barrock Lecture on Criminal Law this past academic year. Morse is at the University of Pennsylvania, serving as the Ferdinand Wakeman Hubbell Professor in the law school and professor of psychology and law in psychiatry at the school of medicine. He also is associate director at the Penn Center for Neuroscience and Society. "Criminal Law and Common Sense: An Essay on the Perils and Promise of Neuroscience," an expanded version of Morse's Barrock Lecture, will be published in the first issue of Volume 99 of the *Marquette Law Review*. This excerpt is from the beginning of the article.



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has stood the test of time as the product of human trial and error. We common lawyers like to think that it is impossible to produce an *ex ante* watertight criminal code. As is well known, the Model Penal Code, an enterprise produced by the best and the brightest, has been subjected to intense criticism, and even states that have been heavily influenced by it have made substantial changes. Instead, common lawyers believe that the bottom-up, "organic" methodology of the common law process in interaction with penal codes will ultimately produce reasonably coherent and just, but not perfect, criminal law.

The criminal law is a thoroughly folk-psychological enterprise. Doctrine and practice implicitly assume that human beings are agents, creatures who act intentionally for reasons, who can be guided by

**T**he criminal law—a beautiful, albeit sometimes ramshackle, institution devoted to blaming and punishing culpable agents—has been developing for well over half a millennium to help us live together. It is the product of an immense number of judicial decisions and penal statutes, and it

reasons, and who in adulthood are capable of sufficient rationality to ground full responsibility unless an excusing condition obtains. We all take this "standard picture" for granted because it is the foundation not just of law, but also of interpersonal relations generally, including how we explain ourselves to others and to ourselves.

The law's concept of the person and responsibility has been under assault throughout the modern scientific era, but in the last few decades dazzling technological innovations and discoveries in some sciences, especially the new neuroscience and to a lesser extent genetics, have put unprecedented pressure on the standard picture. For example, in a 2002 editorial published in *The Economist*, the following warning was given: "Genetics may yet threaten privacy, kill autonomy, make society homogeneous and gut the concept of human nature. But neuroscience could do all of these things first." Consider the following statement from a widely noticed chapter by neuroscientists Joshua Greene of Harvard and Jonathan Cohen of Princeton, which I quote at length to give the full flavor of the claim being made:

[A]s more and more scientific facts come in, providing increasingly vivid illustrations of what the human mind is really like, more and more people will develop moral intuitions that are at odds with our current social practices. . . .

Neuroscience has a special role to play in this process for the following reason. As long as the mind remains a black box, there will always be a donkey on which to pin dualist and libertarian intuitions. . . . What neuroscience does, and will continue to do at an accelerated pace, is elucidate the “when”, “where” and “how” of the mechanical processes that cause behavior. It is one thing to deny that human decision-making is purely mechanical when your opponent offers only a general, philosophical argument. It is quite another to hold your ground when your opponent can make detailed predictions about how these mechanical processes work, complete with images of the brain structures involved and equations that describe their function.

. . . .

At some further point . . . , [p]eople may grow up completely used to the idea that every decision is a thoroughly mechanical process, the outcome of which is completely determined by the results of prior mechanical processes. What will such people think as they sit in their jury boxes? . . . Will jurors of the future wonder whether the defendant . . . *could have done otherwise*? Whether he really *deserves* to be punished . . . ? We submit that these questions, which seem so important today, will lose their grip in an age when the mechanical nature of human decision-making is fully appreciated. The law will continue to punish misdeeds, as it must for practical reasons, but the idea of distinguishing the truly, deeply guilty from those who are merely victims of neuronal circumstances will, we submit, seem pointless.

This is not the familiar metaphysical claim that determinism is incompatible with responsibility, about which I will say more below. It is a far more radical claim that denies the conception of personhood and action that underlies not only criminal responsibility

but the coherence of law as a normative institution. It thus completely conflicts with our common sense. As the eminent philosopher of mind and action, Jerry Fodor, has written:

[W]e have . . . no decisive reason to doubt that very many commonsense belief/desire explanations are—literally—true.

Which is just as well, because if commonsense intentional psychology really were to collapse, that would be, beyond comparison, the greatest intellectual catastrophe in the history of our species; if we're that wrong about the mind, then that's the wrongest we've ever been about anything. The collapse of the supernatural, for example, didn't compare; theism never came close to being as intimately involved in our thought and our practice . . . as belief/desire explanation is. Nothing except, perhaps, our commonsense physics—our intuitive commitment to a world of observer-independent, middle-sized objects—comes as near our cognitive core as intentional explanation does. We'll be in deep, deep trouble if we have to give it up.

I'm dubious . . . that we *can* give it up; that our intellects are so constituted that doing without it (. . . really doing without it; not just loose philosophical talk) is a biologically viable option. But be of good cheer; everything is going to be all right.

The central thesis of this article is that Fodor is correct and that our commonsense understanding of agency and responsibility and the legitimacy of criminal justice generally are not imperiled by contemporary discoveries in the various sciences, including neuroscience and genetics. These sciences will not revolutionize criminal law, at least not anytime soon, and at most they may make modest contributions to legal doctrine, practice, and policy.

I first address the criminal law's motivation and the motivation of some advocates to turn to science >>

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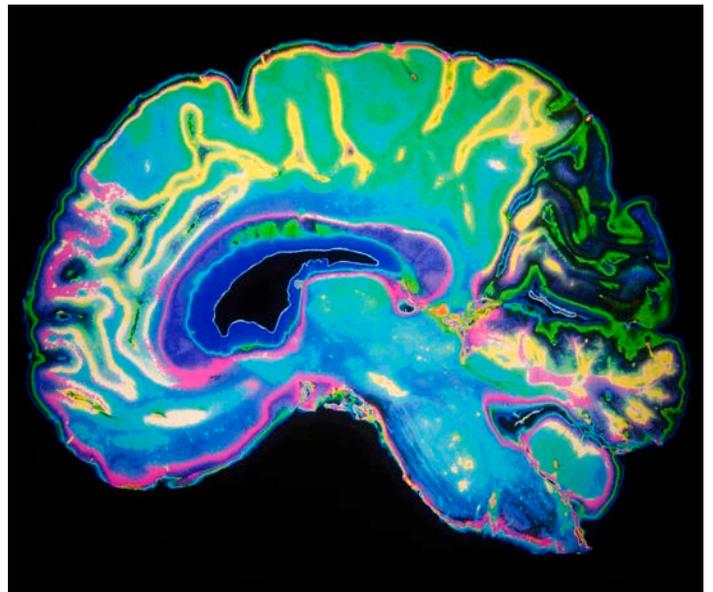
to solve the very hard normative problems that law addresses. The next part discusses how I think the law should respond to the metaphysical issues that underpin our concepts of action and responsibility. Then the article considers the law’s psychology and its concepts of the person and responsibility. Next, I describe the general relation of neuroscience to law, which I characterize as the issue of “translation.” The following part canvasses various distractions, especially determinism and the notion that causation is per se an excusing condition, that have bedeviled clear thinking about the relation of scientific, causal accounts of behavior to responsibility. Next, I examine the limits of neurolaw and then consider why neuroscience does not pose a genuinely radical challenge to the law’s concepts of the person and responsibility. The penultimate part makes a case for cautious optimism about the contribution that neuroscience may make to criminal law in the near and intermediate term. A brief conclusion follows. Throughout, common sense is my guiding star.

### Neuroexuberance

Advances in neuroimaging since the early 1990s have been the source of the exuberance. Two in particular stand out: the discovery of functional magnetic resonance imaging, fMRI, which allows noninvasive measurement of neural functioning, and the availability of ever-higher-resolution scanners, known colloquially as “magnets” because they use powerful magnetic fields to collect the data that are ultimately expressed in the colorful brain images that appear in the scientific and popular media. Bedazzled by the technology and the many impressive findings, however, too many legal scholars and advocates have made claims for the relevance of the new neuroscience to law that are unsupported by the data or that are conceptually confused. I have termed this tendency “brain overclaim syndrome (BOS)” and have recommended “cognitive jurotherapy (CJ)” as the appropriate therapy.

Everyone understands that legal issues are normative, addressing how we should regulate our lives in a complex society. How do we live together? What are the duties we owe each other? For violations of those duties, when is the state justified in imposing the most afflictive—but sometimes justified—exercises of state power, criminal blame, and punishment? When should we do this, to whom, and how much?

Virtually every legal issue is contested—consider criminal responsibility, for example—and there is always room for debate about policy, doctrine, and adjudication. In a recent book, Professor Robin Feldman has argued that law lacks the courage forthrightly to address the difficult normative issues that it faces. The law therefore adopts what Feldman terms an “internalizing” and an “externalizing” strategy for using science to try to avoid the difficulties. In the internalizing strategy, the law adopts scientific criteria as legal criteria. A futuristic example might be using neural criteria for criminal responsibility. In the externalizing strategy, the law turns to scientific or clinical experts to make the decision. An example would be using forensic clinicians to decide whether



a criminal defendant is competent to stand trial and then simply rubber-stamping the clinician's opinion. Neither strategy is successful because each avoids facing the hard questions and impedes legal evolution and progress. Professor Feldman concludes, and I agree, that the law does not err by using science too little, as is commonly claimed. Rather, it errs by using it too much, because the law is insecure about its resources and capacities to do justice.

A fascinating question is why so many enthusiasts seem to have extravagant expectations about the contribution of neuroscience to law, especially criminal law. Here is my speculation about the source. Many people intensely dislike the concept and practice of retributive justice, thinking that they are prescientific and harsh. Their hope is that the new neuroscience will convince the law at last that determinism is true, no offender is genuinely responsible, and the only logical conclusion is that the law should adopt a consequentially based prediction/prevention system of social control guided by the knowledge of the neuroscientist-kings who will finally have supplanted the platonic philosopher-kings. Then, they believe, criminal justice will be kinder, fairer, and more rational. They do not recognize, however, that most

of the draconian innovations in criminal law that have led to so much incarceration, such as recidivist enhancements, mandatory minimum sentences, and the crack/powder cocaine sentencing disparities, were all driven by consequential concerns for deterrence and incapacitation. Moreover, as C. S. Lewis recognized long ago, such a scheme is disrespectful and dehumanizing. Finally, there is nothing inherently harsh about retributivism. It is a theory of justice that may be applied toughly or tenderly.

On a more modest level, many advocates think that neuroscience may not revolutionize criminal justice, but neuroscience will demonstrate that many more offenders should be excused and do not deserve the harsh punishments imposed by the United States criminal justice system. Four decades ago, our criminal justice system would have been using psychodynamic psychology for the same purpose. More recently, genetics has been employed in a similar manner. The impulse, however, is clear: jettison desert, or at least mitigate judgments of desert. As will be shown below, however, these advocates often adopt an untenable theory of mitigation or excuse that quickly collapses into the nihilistic conclusion that no one is really criminally responsible. ■

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Michael J. Zimmer, L'67

## You Never Know Where Your Career Will Take You

This past spring, Michael J. Zimmer, L'67, delivered remarks at an end-of-year dinner as the *Marquette Law Review* marked the completion of its work on Volume 98. Zimmer had served as editor-in-chief of Volume 50 of the *Law Review*. At the time of these remarks, he served as professor of law at Loyola University Chicago. Professor Zimmer passed away this fall.

**T**hanks for inviting me back. Forty-eight years ago, in this very room here in the University Club, I was hosting the banquet celebrating Volume 50 of the *Marquette Law Review*.

I want to talk about four points: my time at the Law School, my excellent legal education, a message to the rising 3L members of the Law Review, and my words of so-called wisdom for the graduating 3Ls.

First: My time at the Law School. The 1960s were tumultuous, and some of that tumult came into the Law School. Our increasingly long hair—I had some

then—and our informal attire were not well received by the powers that be. One faculty member called me “Shirtman” because I no longer wore a coat and tie to class. More serious was the involvement of some of my classmates in the civil rights movement in Milwaukee. My classmate, law review member, friend, ▶▶

