Washington University Jurisprudence Review

VOLUME 7 NUMBER 1 2014

RATIONALITY, LEGITIMACY, & THE LAW

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ABSTRACT

American legal realism was committed to examining legal reasoning in terms of the actual experiences of judges. Because the realist project sought to use social science tools to examine human nature, the contemporary rise of cognitive neuroscience provides an occasion for re-examining legal realism's foundational critique of the law. Realism's attempt to examine "the actual facts of judicial behavior" and to pursue a "scientific description and prediction of judicial behavior" appears to be a suitable vehicle for considering the relevance of cognitive neuroscience for legal theory. Cognitive neuroscience has provided convincing evidence for rejecting the traditional bifurcation between "reason" and "emotion." Moreover, cognitive neuroscience has revealed key heuristic biases in human reasoning. As such, the dominant form of legal reasoning might rely on a flawed conception of rationality. Therefore this flawed understanding may have implications for the legitimacy of judicial decisions. Rule-based reasoning has informed the image of rational adjudication that undergirds our conception of the rule of law, but rule-based reasoning does not appear to be a complete description of how judges decide cases. Furthermore, the received view of legal rationality does not appear capable of accounting for alternative theories of adjudication.

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I. INTRODUCTION

A judicial decision is a social event. As such, rationality in law—how judges make decisions and how those decisions are weighed and reasoned about within legal discourse—is a question not of pure logic, but of social experience. As such, a full picture of judicial decision-making involves psychology, economics, and political theory, in addition to law. The social event of judging can be considered a rational legal process if it achieves logical and social legitimacy. Legal rationality, then, depends upon legitimate adjudication. If a theory of legal rationality is to explain how judges make decisions, why standards of consistency, clarity, and predictability are appealing, and how (or whether) precedent, rules, and doctrine make the law work, then a theory that relies upon the science of human decisions for an account of legal reasoning is essential. Unfortunately, this depiction of the law does not inform how American jurisprudence conceptualizes either legal reasoning or the rule of law.

During the turn of the 20th century, the received view of legal theory was threatened by the foundational challenge posed by the American legal realism movement. American legal realism (hereinafter "realism") critiqued the formalist view of law as a body of rule-based prescriptions. While realism dealt with questions of legal meaning, judicial deference, legal positivism, civil procedure, and much more, this article focuses only on realism as a critique of judicial reasoning. The formalist understanding of judicial decision-making, with its focus on rule-based reasoning in particular, involves a special theory of explanation, which I call "Legal

Rationalism." Thus, I understand realism as a critique of Legal Rationalism.

However, the substance of realism did not travel far beyond this critique of Legal Rationalism.[1] American legal realism is said to have failed because it could not build a constructive system for law.[2] Realism's lack of a constructive system resulted from first, the realists' rejection of the theory that legal rules constrained judicial decision-making, which led to the impractical conclusion that legal rules lacked relevance,[3] and second, the realists' inability to propose a workable alternative to their criticism of judicial decision-making.[4]

This article revives American legal realism by showing how contemporary findings in cognitive neuroscience give us reason to revisit the realists' major premise that legal rules do not constrain judicial decision-making, in addition to providing a potential solution to the two key problems confronted by realism (i.e., (1) maintaining the relevance of legal rules and (2) providing a workable alternative to Legal Rationalism). Consistent with Felix Cohen's description of legal realism as offering a "functional approach," we may describe the examination of judicial reasoning in the context of neurocognitive science as functionalism.[5]

Legal Rationalism, which is the widely accepted view of legal theory, must be reexamined in light of recent developments in cognitive neuroscience and their translatability to the work of social science. Because legal theory must examine cognitive neuroscience in explaining judicial decision-making both empirically, as a description of how judges actually make decisions, and normatively, as a description of how judges ought to evaluate disputes, legal realism's foundational critique of the law

1. NEIL DUXBURY, PATTERNS OF AMERICAN JURISPRUDENCE 158 (1995).

2. David Marcus, *The Federal Rules of Civil Procedure and Legal Realism as a Jurisprudence of Law Reform*, 44 GA. L. REV. 433, 437 (2010).

3. RONALD DWORKIN, LAW'S EMPIRE 36 (1986) ("Some realists . . . said there is no such thing as law, or that law is only a matter of what the judge had for breakfast.").

4. RICHARD A. POSNER, FRONTIERS OF LEGAL THEORY 3 (2001) ("Legal realism failed to deliver on its promises, and by the end of World War II had petered out."); *See also* Michael Heise, *The Past, Present, and Future of Empirical Legal Scholarship: Judicial Decision Making and the New Empiricism*, 2002 U. ILL. L. REV. 819, 822 (2002) ("The legal realism movement provided the first significant and visible forum for the intersection between applied social science and legal scholarship. Concurrent with the development of legal realism, critical events were unfolding outside law schools that, in time, enormously influenced empirical legal research. Prominent among these events was the emergence of the social sciences as discrete fields of study and the development of related methodologies. As a movement, however, legal realism . . . came and went.").

5. Felix Cohen, *Transcendental Nonsense and the Functional Approach*, 35 COLUM. L. REV. 809, 812 (1935) ("[T]he traditional language of argument and opinion neither explains nor justifies court decisions.").

must be reconsidered.[6] To say legal theory needs to be rethought is to argue for a methodological shift, akin to Felix Cohen's foretelling that "[c]reative legal thought will more and more look behind the pretty array of 'correct' cases to the actual facts of judicial behavior, will make increasing use of statistical methods in the scientific description and prediction of judicial behavior, will more and more seek to map the hidden springs of judicial decision and to weigh the social forces which are represented on the bench."[7]

The functionalist argument against Legal Rationalism and the argument proposed herein proceeds as follows: Legal Rationalism, the theory that rule-based reasoning[8] can explain judicial decision-making, is epistemically suspect. Rule-based reasoning fails as an account of judicial decision-making for two reasons: First, rule-based reasoning is internally inconsistent because, in hard cases, judges do not decide cases based on proposition-like rules. Second, it misunderstands the nature of decision-making by wrongly assuming that reasoning based on proposition-like rules is possible, rational, or actually occurring. The failure of Legal Rationalism calls for a new theory, and functionalism ultimately challenges the logic of the positivistic theory of the rule of law. The claim of functionalism, consistent with the realist critique, is that neurocognitive science reveals that there are tacit bases for judicial preferences that influence decisions, and an ideal theory of law must be able to explain these preferences. This Article proposes a theory of legitimacy, which suggests that if judges focused on the "legitimacy" of their decisions as opposed to the "rationality" of their conclusions, they would have a basis for either accounting for or constraining those non rule-like (propositional) elements of legal reasoning, which I suggest are heuristic biases. In the most casuistic of terms, legal rationalists (positivists) believe that reason is the core of the rule of law because *rationality* protects political *legitimacy*. Functionalism, on the contrary, holds that empirically legitimate judicial decision-making guarantees the *rationality* of those decisions and thus grounds the rule of law in *legitimacy*.

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6. It is beyond the scope of this Article to fully evaluate the implications of neuroscience for the law. Instead, this paper seeks to make the case that studying neuroscience is relevant to the study of law, not merely for the practical utilities of presenting new evidence in criminal cases, but from a foundational perspective of evaluating the judicial decision-making process in the abstract.

7. Cohen, *supra* note 5, at 833.

8. While rule-based reasoning appears merely to be a theory about how judges think, the theory also suggests a political philosophy about the rule of law—one that holds that rationality secures legitimacy. I call this the theory of *rationalism.*

There is a high impact to the idea that judges must concern themselves with what is legitimate as opposed to what is rational: it proposes a better descriptive theory of judicial decision-making by accounting for non-propositional influences while at the same time prescribing a more workable theory of law. Functionalism is something more than a mere academic appreciation for the natural sciences by lawyers. Ultimately, functionalism buttresses legal realism's critique of Legal Rationalism by using the natural sciences to investigate the heuristic biases implicit within judicial reasoning.

In Part I of this Article, I outline the received understanding of the rule of law and explain why this traditional theory supports Legal Rationalism as a theory about law. Part II explains how Legal Rationalism fails to be a workable theory of jurisprudence. In Part III, I argue that a functional approach to jurisprudence can explain bias in judicial decision-making and help build theories about judging that can help minimize judicial bias and resolve issues presented by Legal Rationalism. In Part IV, I apply the problem of jurisprudential bias to administrative law, arguing that functionalism motivates an approach to judging that advances a principle of political legitimacy.

II. THE RULE OF LAW

The guiding concept of the legitimacy of legal institutions is the rule of law. In America, the rule of law has special significance for the role of judges in legal interpretation. We say that our judges are guided by the rule of law and what we mean by that is that our judges will issue fair, balanced, and truth-concerned opinions when resolving disputes. The rule of law ensures a society ruled by law, order, and justice—not executive whim, not financial influence, and not partisan zealotry. The standard view of the rule of law is that law preserves political legitimacy.

The rule of law is a statement on legitimate political authority. The "rule of law requires that the state only subject the citizenry to publicly promulgated laws, that the state's legislative function be separate from the adjudicative function, and that no one within the polity be above the law."[9] The rule of law is often contrasted to the "rule of men," which "generally connotes unrestrained and potentially arbitrary personal rule by an unconstrained and perhaps unpredictable ruler."[10] The rule of law, then, is

9. Michel Rosenfeld, *The Rule of Law and the Legitimacy of Constitutional Democracy*, 74 S. CAL. L. REV. 1307, 1307 (2001).

10. *Id*. at 1313.

understood as bastion against a structure of law that can be changed unilaterally and arbitrarily.[11] As a principle of legitimate political authority, the rule of law "requires fairly generalized *rule through law*; a substantial amount of legal predictability (through generally applicable, published, and largely prospective laws); a significant separation between the legislative and the adjudicative function; and widespread adherence to the principle that no one is above the law."[12] Whether the rule of law is defined as a series of principles about the separation of the state from the society,[13] the public nature of law,[14] or the notion that the law is somehow immune to political or personal preferences,[15] the rule of law aims to ensure legitimacy in political affairs. But does it?

The rule of law is both a theory of institutions and a theory of institutional actors. The former theory demands the types of social-scientific inquiries involved in the study of bureaucratic rule-making, legislative bargaining, and democratic federalism, while the latter theory concerns judges and how they make decisions. When legal scholars argue that the "rule of law was historically defined almost entirely in terms of the judicial enforcement of legal rights and duties[,]" they are describing this institutional actor theory of the rule of law.[16] Under the institutional actor theory, legitimacy is concerned with how legal actors reason. The rule of law's political concerns also shape certain epistemic concerns, which is why the rule of law entails a theory of judicial reasoning. This rule-based theory of judicial reasoning is Legal Rationalism. Implied within the rule of law, then, is a theory of rationality.

A. Rationalism

The backdrop behind the American brand of the rule of law is the Enlightenment: the intellectual period of the West where philosophers, scientists, and political thinkers joined together in the insight that reason elevated politics towards the pursuit of truth. The Enlightenment view of

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11. *Id*.
12. *Id*. (emphasis added).
13. *See* THE RULE OF LAW UNDER SIEGE: SELECTED ESSAYS OF FRANZ L. NEUMANN AND OTTO KIRCHHEIMER (William E. Scheuerman ed., 1996).
14. *Cf.* BRIAN TAMANAHA, ON THE RULE OF LAW: HISTORY, POLITICS, THEORY 119 (2004) ("The rule of law in this sense entails public, prospective laws, with the qualities of generality, equality of application, and certainty.").
15. *See* Judith N. Shklar, *Political Theory and the Rule of Law*, *in* THE RULE OF LAW: IDEAL OR IDEOLOGY 1 (Allan C. Hutchinson & Patrick Monahan eds., 1987) (Aristotle equated the rule of law with the rule of reason).
16. GLEN O. ROBINSON, AMERICAN BUREAUCRACY: PUBLIC CHOICE AND PUBLIC LAW 151 (1991).

reason understood the human mind as a filter of sorts—one that was capable of applying an abstract quality of "reason" to facts in order to filter out the pure from the contaminated and to hone in upon those clear and distinct ideas that could be properly called knowledge. Reason, in this view, was a power of the mind and one that could uniquely filter out the relevant from the irrelevant. It is not surprising, then, why this Enlightenment view has strong appeal to the judiciary. If reason was capable of deciphering true knowledge and relevant ideas, then reason could likewise be applied to legal disputes to generate the correct theory of a case. Judges, when exercising their reason, would be objective and just and their opinions would arrive at the clear and distinct truths of the law.

The way judges would apply reason to law is through rules. Rules, like clear and distinct ideas, are proposition-like and can be applied to any set of facts in a consistent and technical manner. Rules can help filter out relevant evidence from the irrelevant; rules can distinguish proper procedure from improper procedure and so forth. Therefore, when a judge reasons by the rules, that judge is not only ensuring an objective, fair, and rational resolution of a dispute, but that judge is also upholding the rule of law. This moral and political logic has informed the tradition of jurisprudence practiced by lawyers and judges today.

The tradition of legal philosophy ranging from Jeremy Bentham to J.L. Austin to H.L.A. Hart to Ronald Dworkin, Jeremy Waldron, and Joseph Raz is concerned with how judges reason. A legal opinion, after all, is an explanation of a judge's reasoning.[17] This legal tradition is committed to the Enlightenment project of linking rationality with legitimacy. This project has become commonplace for the institutional actors of law today. It remains an attractive project precisely because it claims that rational law is necessary and sufficient for political legitimacy. The theory holds that good government can be guaranteed when judges make well-reasoned decisions. Legal rules, under this tradition, are both a check against and an antidote to arbitrary power.

This conception of law and perspective on the acquisition of legal knowledge; however, is premised upon a picture of rationality that is heavily biased towards rationalism. Rationalism suggests that something is really only knowable or known to the extent that it can be conveyed by rule-like propositions. That is to say, if something cannot be translated into

17. Michael Heise, *Symposium: Empirical and Experimental Methods of Law: The Past, Present, and Future of Empirical Legal Scholarship: Judicial Decision-Making and the New Empiricism*, 2002 U. ILL. L. REV. 819, 839 (2002) ("[T]he actual judgment process [is] reflected in judges' explanation of their reasoning.").

a rule-like proposition, that thing is not a proper candidate for knowledge. Rule-like propositions, because of their ability to convey what is rational, then serve also to convey what is not rational (i.e., whatever is non-propositional). This has high stock value politically: if a leader's commands cannot be translated into rule-like propositions, that leader can be said to have exercised arbitrary authority (e.g., murdering first-born male children without explanation because the leader did not want to be dethroned). If, on the other hand, that leader's commands can be understood in terms of rule-like propositions, whether those propositions are accepted or rejected, the potential for the public critique of them credits those commands as rational and therefore legitimate (e.g., "If one has a child who is both first-born and a male, then that child must be killed because doing so protects the King."). We obviously all think both justifications may be arbitrary, but there is a cognitive difference between decisions which can be justified propositionally and those that cannot. The former, as a psychological matter, more often than not become palpable candidates for legal authority.[18]

B. Legal Rationalism

The theory of knowledge that regards reason as the source of knowledge has been described by philosophers as Rationalism. The application of Rationalism to law has been described by legal thinkers as positivism or formalism, but, for purposes of simplicity, let us call it Legal Rationalism. Legal Rationalism is the philosophy subscribed to by American lawyers and judges. Legal Rationalism is the theory that judges resolve legal disputes through legal rules, applied to facts. Legal rules, much like rules of reason, are capable of filtering out the legally relevant from the legally irrelevant in order to decipher clear and distinct legal ideas that become articulated as objective, fair legal conclusions that determine the outcome of a dispute. For the legal community, Legal Rationalism not only appears as a sensible approach, but it is the guidebook for how lawyers and judges understand the rule of law to function.

Independent of whether one argues that legal rules are normative or positive, it is clear that legal reasoning involves the use of legal rules. This is a matter of common sense once we consider that our jurisprudential

18. *See, e.g.*, TOM R. TYLER, WHY PEOPLE OBEY THE LAW, 282 (2006) ("[W]idespread views that existing authorities and institutions are legitimate . . . promotes acceptance of its decisions and the rules it promulgates.").

objections to many legal decisions often focus on a perceived misapplication of legal rules—or, worse, obliviousness toward them. Under the "Enlightenment tradition" mentioned above, legal reasoning must yield conclusions that are clear, predictable, and consistent, which are held to constitute objective legal standards. These conclusions become interpreted, shared, and expressed as legal rules.

There are a number of claims that arise from this tradition's adherence to rationality: (1) legal reasoning is reasoning with rules; (2) all legal conclusions are derived from legal rules; (3) law is rational because judges can articulate the law by means of general rules; and (4) the rule of law is the position that law is rational because judges can articulate the law with rules.[19] Criteria (1), (2), (3), and (4) are the general indicators that the rule of law is functioning during the adjudication process. Even when legal actors disagree about the scope of any one of these criteria, these disagreements tend to be matters of degree. They are not foundational disagreements concerning the role rules play in legal reasoning. Thus, if we accept rule-based reasoning as what judges actually, or should, do, and this form of reasoning is central to how the rule of law is enforced, then the rule of law can be accurately described as a statement about rationality. As such, the rule of law subscribes to the position that the rationality of legal decision-making guarantees its legitimacy. The theory of rationality-as-legitimacy, whether stated as positivism or formalism, is a theory of Legal Rationalism. The result of this rationalist theory of knowledge is a positivistic theory of law.

III. THE STANDARD VIEW OF THE RULE OF LAW FAILS AS A THEORY OF LEGITIMACY

Legal Rationalism was challenged by an academic movement, which spanned the late nineteenth century until the mid-twentieth century, called American Legal Realism. American Legal Realists challenged the idea that judges were constrained by legal rules. They did this, in large part, by looking at the hard cases that were politically or socially contentious. In the hard cases, the application of legal rules does not clearly lead to an objective outcome; instead, the rules appear to conflict. Take for instance, regulatory matters where the government and an individual or company may be involved in a dispute about an agency's regulation. The judge might look at the relevant legal materials, which include legislation, other

19. Gerald B. Wetlaufer, *Systems of Belief in Modern American Law: A View From Century's End*, 49 AM. U. L. REV. 1, 10–12 (1999).

court precedents, and legal holdings relevant to the dispute at issue, but those legal materials may ultimately lead to two conflicting rules: one rule says that the judge should defer to the agency's expertise if the agency's interpretation of the statute was "reasonable," while another rule states that the judge should overturn the agency interpretation if such an interpretation was "arbitrary and capricious."

These cases are "hard" because they cannot be resolved simply by the rules—they require the judges to exercise discretion and judgment that may involve extra-legal considerations. What is "reasonable" or "arbitrary" is something that does not involve clear and distinct propositional statements that can be logically ordered and deduced but instead requires judgment—the kind that an individual human judge will have to make. And judges are not logic-limited computers. What the American Legal Realists pointed out was that in these hard cases, the judges crafted solutions that appeared rule-like (e.g., "The agency's interpretation is reasonable/arbitrary when [factors].") when in reality these judgments reflect certain policy preferences or cannot be explained by the rules or holdings of formal legal materials (cases, statutes, regulations).

No one is likely to disagree that the American Legal Realist criticism of Legal Rationalism has a strong point to make. But ultimately this criticism failed to change American legal culture because it offered little in the way of a workable alternative (i.e., judges don't apply the rules all the time—so what? Should judges stop following the rules? Should lawyers stop applying legal rules in practice?). The system would appear to break down. But these practical objections may not be sufficient for throwing out the Realist project.

Consider what I call the "functional argument": rule-based reasoning is internally inconsistent because in hard cases, judges engage in gap-filling which cannot be explained in terms of legal rules. These non-propositional justifications ultimately involve the use of heuristics—tacit cognitive tools for decision-making. These heuristics create biases in the reasoning process. Legal Rationalism either cannot account for heuristic bias or is committed to holding that such heuristic bias, being non-propositional, fails on legal rationalist grounds. Moreover, because Legal Rationalism fails to understand the nature of legal decision-making, heuristic bias appears to involve the arbitrary selection of rules contrary to rule of law principles of non-arbitrariness. Legal Rationalism therefore breaks down into skepticism because it cannot provide a rational way to select values. This threatens the rule of law as a theory of political legitimacy. We shall

now proceed in unpacking the methodology behind the functional argument.

According to Jeremy Waldron, "[l]aws should be clear, public, and prospective, they should take the form of stable and learnable rules, they should be administered fairly and impartially, they should operate as limits on state action, and they should apply equally to each and every person, no matter how rich and powerful they are."[20] These standards for the rule of law are, on their face, epistemological (in the sense that they have validity as criteria of knowledge, in the rule-like propositional sense described above) criteria for certainty in the law. And yet these standards also serve a normative function in the sense that they allow the public and institutional actors to assign praise and blame for a judge's fidelity or infidelity to these standards in his or her reasoning.

Paradoxically, these criteria, which serve to free judicial reason from biasing modes of experience, preference, or politics, are at the same time instrumental to a form of morality about the law. Implicit, therefore, within these rational standards for the rule of law is an inherent ascription to a plurality of epistemological norms such as reasonableness, neutrality, generality, clarity, publicity, prospectiveness, certainty, consistency, forward-lookingness, non-arbitrariness, fairness, finality, efficiency, predictability, constancy, stability, intelligibility, clear-statement rules, non-retroactivity, judicial deference, and, finally, judicial discretion.[21] Moreover, most legal actors understand principles of clarity, predictability, and consistency as standards for appropriate or "good" judging. But the fact that judges often use these standards for evaluating whether an opinion is valid or sound implies that these standards confirm a sense of rationalistic legitimacy to judges.

The discussion of "clear-statement rules" reflects the sense that rules which are clear, predictable, and consistent are those that are most effective at ensuring the formal theory of the rule of law: ensuring impartiality and protecting against arbitrariness and abuse. The clearer the statement of law, the more effortlessly the public can comprehend the rule and thus modify its behavior to meet the rule's demands. The fact that legal standards structure a judge's mental process in selecting

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20. Jeremy Waldron, *The Hamlyn Lectures 2011: The Rule of Law and the Measure of Property* 27 (NYU Sch. of Law, Public Law & Legal Theory Research Paper Series, Working Paper No. 11-47, 2011), *available at* http://dx.doi.org/10.2139/ssrn.1866357.

21. LON FULLER, THE MORALITY OF LAW (1964); RICHARD A. EPSTEIN, DESIGN FOR LIBERTY: PRIVATE PROPERTY, PUBLIC ADMINISTRATION, AND THE RULE OF LAW (2011). *See also* Vallejo v. Wheeler (1774) 1 Cowp. 143, 153 (Eng.).

"appropriate" rules while also empowering third-parties to scrutinize whether the judge's conclusions are valid or sound implies that legal reasoning depends upon a theory of what constitutes legitimate reasoning. In other words, legal reasoning depends upon a theory of rationality.

The theory of legal rationality necessary for rule-based reasoning requires judges to reason in such a way so that their conclusions are clear, predictable, and consistent. This says something not merely about the selection and crafting of legal rules, but the way those rules are applied as well.

Legal Rationalism as such is set forth as a mechanical depiction of the legal decision process—one that even legal formalists might not accept as an accurate account of jurisprudence. One might contend that Legal Rationalism is concerned less with the rationality of legal rules than the rationality of the application of rules to a given dispute. Legal rules originate from judges and therefore incorporate human values and preferences in virtue of being human expressions, but law is said to be a rational process because it involves a system dependent upon correct applications of legal rules to facts. The rationality of this system is either agnostic about or foundationally independent from the rationality or correctness of the legal rules themselves.

To take this objection one step further, one might claim that legal rules have no rational value at all but that the rationality of legal rules is merely an after-the-fact attribute of the judicial application of those rules to facts in the form of a final decision. Under this view, such a final decision becomes authorized as correct and thus legitimizes the correctness of its component parts, including the legal rules and principles at issue.

There is obvious discretion in the judicial interpretation and application of legal rules, but rationalism is committed to the belief that the correct application of legal rules involves norms of reasoning that are limited merely to premises and conclusions that can be reduced to rule-like propositions. A judicial opinion that cannot be digested into rule-like propositions is suddenly suspect as arbitrary, political, over-engaged, or activist.

The rule of law in the United States, as a practical matter, is the requirement that judicial decisions result from rule-based reasoning. Legal knowledge is characterized by the rule-based reasoning that creates it. Rule-based reasoning is a rational theory of jurisprudence because legal rules both exhaust and explain the legal decision-making process. As

Judge Posner has stated, "judges discipline themselves to respond to the problems before them with careful, linear rationality."[22]

Rationality concerns how human beings make decisions.[23] Legal actors tend to label as "rational" those decisions or actions by judges that appear intuitively legitimate. The judge's opinion, his or her use of precedent, the clear articulation of the rules of law, a reasoning process employed in analyzing those rules, and an argument-based form are all lodestars of rationality that are deemed necessary for a legitimate legal outcome.

Surely rationality, for lawyers, is not simply a question of what sounds good; yet, legal decision making is deeply dependent upon emotion and, therefore, not the sort of epistemological concept that a pure rationalist would deem a relevant candidate for knowledge. The judicial method of selecting, applying, and delineating legal rules based upon standards such as clarity, consistency, and predictability is not clearly rational under the rule-based reasoning model. For one, according to Dworkin, these standards are informed by policy values that are not themselves sufficient grounds for rational justification under (strict, rule-based reasoning-based) Legal Rationalism, which seeks to filter out non-propositional justifications as irrational.

Rule-based reasoning thus lacks a rational means of certifying the rationality of its stated legal standards. If the selection of a standard cannot be certified in a clear statement, then it fails rationalism's stated mode of justification. In other words, while judges might incorporate policy into decisions in a manner that appears propositional-like, nothing intrinsic to this reasoning process ensures that these incorporations or uses of political or moral values is a rational form of jurisprudence.[24] Because, as a technical matter, the rule of law fails to be "rational" on its own account, judges must do something to legitimate their decision-making. Judges therefore fill logical gaps in the evaluation of a dispute with tools that do not originate from legal rules.

The result is that legal inquiry is a question of how to heuristically weigh values, without concern for the rational validity of those values.[25] This failure of rules to confirm their own validity means legal rules are

22. Kathryn Abrams & Hila Keren, *Who's Afraid of Law and the Emotions?*, 94 MINN. L. REV. 1997, 2005 (2010).

23. 3 HERBERT A. SIMON, MODELS OF BOUNDED RATIONALITY 291 (1997). *See also* Heller v. Doe, 509 U.S. 312, 320 (1993) (describing rationality as speculative and not based on empirical evidence).

24. *See* MICHAEL POLANYI, THE TACIT DIMENSION 17 (1966).

25. RONALD DWORKIN, TAKING RIGHTS SERIOUSLY 7 (1977) ("[J]urisprudential issues are at their core issues of moral principle, not legal fact or strategy.").

"nonepistemic."[26] In other words, legal rules are not complete accounts of knowledge. If something beyond the rules and the judges' strict, non-discretionary reasoning based on these rules is required to certify the rationality of jurisprudence, then either Legal Rationalism is an incomplete theory of jurisprudence, or, conceding the rationalist conception of rationality, judicial decision-making is not merely a rational process. In these cases, the rule of law fails to meet its own "rational" standards of clarity, consistency, and predictability.

Whether reasoning through values or employing rule-like heuristics in these cases, judges are not merely reasoning through rules. Judges often exercise "discretion," which is a euphemism for judicial prerogative. Moreover, the fact that hard cases cannot be strictly resolved by rules reflects the indeterminacy or incompleteness of a theory of legal rationality bound by rules. It would be naïve to suggest that an individual judge is rationally capable of articulating all legally relevant facts in propositional terms. That is to say, not only is rule-based reasoning rationally insufficient, it is practically impossible.

From these observations a number of conclusions follow, namely, (1) legal rules are not sufficient for legal conclusions; (2) gap-filling by judges cannot be explained by rules; and (3) processes of legal reasoning are not clear, consistent, or predictable. Based on these conclusions, it appears that rule-based reasoning (the rule of law) provides an inadequate, and indeed incomplete, account of legal reasoning. Therefore, if we wish to avoid errors in developing a more comprehensive and practical understanding of legal rationality, we need to look elsewhere.

But these justifications lose their legitimacy on the grounds that, first, as a descriptive matter, emotions are impossible to filter out because reasoning is not rational without emotion and second, as is visible in hard cases, "emotions already infuse decisionmaking whether or not they are recognized by legal actors."[27] Emotions "have a vital role to play in legal thought and decisionmaking."[28] The rationalism of rule-based reasoning represented "a long intellectual tradition that dichotomized reason and emotion and construed legal thought as a professionally instilled cognitive process, which could be powerfully unsettled by affective response."[29] Neuroscientists recognize emotion as a part of intelligence "just as

26. LARRY LAUDAN, TRUTH, ERROR, AND CRIMINAL LAW: AN ESSAY IN LEGAL EPISTEMOLOGY 3 (2006).
27. Abrams & Keren, *supra* note 22, at 2004.
28. *Id*. at 2003.
29. *Id*.

cognitive as other precepts."[30] "[T]he process of cognitive decisionmaking embodies vital affective components."[31]

Ironically, "[t]he detachment of legal rationality reflected the historic view of law as a quasi-science: a process of deducing, from a framework of legal principles, the rule to be applied to a particular case."[32] Ironic, of course, because legal formalism today rejects functionalism, which is informed by recent developments in neuroscience that dispute the anti-scientific bifurcation of reason and emotion in the cognitive decision-making process.[33] There were ostensibly practical reasons for being fearful of the role of emotions in a presumably objective system of law. The relationship between emotions and political life was captured by the ancient Greek concept of *thumos*, spiritedness, which, in an ideal form, explains the power of democratic sentiment but can also serve as the seat of mob rule.[34] In addition to concerns about politicization, emotions led to unpredictable discretion, fickle reasoning, and arbitrary decision-making.

IV. THE ALTERNATIVE TO LEGAL RATIONALISM

American Legal Realism may arguably be salvaged by recent findings in cognitive neuroscience, which provide an alternative to the critique of Legal Rationalism. In short, cognitive neuroscience tells us some new things that challenge the picture of the mind presented to us by Enlightenment-era Rationalist philosophy.[35] The mind is not capable of separating reason from emotion to derive clear and distinct truths; instead, emotion is not only relevant to rational functioning—it is necessary to it.[36] This is why someone whose amygdala is damaged will fail to act rationally even if his logic center—the prefrontal lobe—is intact. Moreover, cognitive neuroscience reveals that human beings have bounded rationality—that is to say, we are prone to make errors when

30. *Id*. at 2044 (quoting ANTONIO D'AMASSIO, DESCARTES' ERROR at xv (1994)).

31. *Id*. (citing Jonathan Haidt, *The Emotional Dog and Its Rational Tail: A Social Intuitionist Approach to Moral Judgment*, 108 PSYCHOL. REV., no. 4, 2001, at 815).

32. *Id*. at 2003.

33. *Id*.

34. *See, e.g.*, FRANCIS FUKUYAMA, THE END OF HISTORY AND THE LAST MAN 204–06 (1992).

35. *See, e.g.*, PATRICA CHURCHLAND, NEUROPHILOSOPHY: TOWARD A UNIFIED SCIENCE OF THE MIND-BRAIN 273 (1986) (responding to the tradition of distinguishing between mental processes and brain processes).

36. ANTONIO R. DAMASIO, DESCARTES' ERROR: EMOTION, REASON, AND THE HUMAN BRAIN 200 (Quill 2000) (1994) ("[T]he action of biological drives, body states, and emotions may be an indispensable foundation for rationality.").

forced to make judgments given limited information.[37] As we are given more information, our judgments become improved. Take, for instance, Daniel Kahneman's psychological experiment where he presents the challenge: "A bat and a ball cost $1.10 in total. The bat costs $1 more than the ball. How much does the ball cost?"[38] Almost everyone studied by Kahneman and his colleagues reported an initial tendency to answer "10 cents" because the sum $1.10 intuitively separates into $1 and 10 cents. Kahneman uses this example to show that human beings are biased in their reasoning, "often content to trust a plausible judgment that quickly comes to mind[,]" thus reflecting a heuristic bias in the way we conceptualize and reason through problems.[39]

In the same sense, judges, when resolving a dispute, say, between agency reasonableness and agency arbitrariness, may be biased by certain heuristics they are accustomed to applying to a case—whether from their experience as lawyers or judges or whether from their own ideological preferences. There are ways to frame issues or questions to avoid bias. Consider: "A bat and a ball cost $1.10 in total. The bat costs $1 more than the ball. The ball is not 10 cents. How much does the ball cost?" By framing the issue with information provided to avoid error, the problem solver's biases can be reduced. By providing more information, one can challenge the heuristic bias of the problem solver to think the ball costs 10 cents. The probem solver's rush to judgment or arithmetic bias is essentially slowed in its tracks by new information that informs him that his preconceived solution to the problem is wrong.

If we know that judges are likewise prone to error—whether via heuristic biases, limited knowledge, or their bounded rationality—why, then, do we limit their judgment to legal rules? Would a rational judge not seek to minimize his risk of error or reliance on bias by consulting materials that may challenge his preferences or views and effectively debias him or present him with additional knowledge to make a more informed decision? This was what American Legal Realism sought to do but did not accomplish because its theories lacked an empirical foundation. We now get that foundation through cognitive neuroscience, and this neuroscientific foundation is not one that transforms the task of

37. HERBERT A. SIMON, ADMINISTRATIVE BEHAVIOR 323 (4th ed. 1997) (An individual's rationality is "limited by the extent of his knowledge and information.").

38. Daniel Kahneman & Shane Frederick, *Representativeness Revisited: Attribute Substitution in Intuitive Judgment, in* HEURISTICS AND BIASES: THE PSYCHOLOGY OF INTUITIVE JUDGMENT 49, 58 (Gilovich et al. eds., 2002).

39. *Id.*

judging into one that is reducible to cognitive neuroscience. Instead, it allows us to reexamine Legal Rationalism as having a rationalistic bias in its understanding of the rule of law. Most simply, Legal Rationalism endorses positivism: the theory claims that rationality (rule-based reasoning) guarantees legitimacy (the rule of law). If the rule of law represents the fairness and objectivity that defines political legitimacy and if the Rationalist approach of getting to legitimacy through reason is one that is flawed, why not consider reversing the logic of the rule of law? The Legal Rationalist theory of the rule of law is biased. What if legitimacy (reducing errors in judgment, minimizing bias) guarantees rationality (informed decision making)? This approach appears a more rational and legitimate defense of the rule of law given a foundation of cognitive neuroscience. Is legitimacy-as-rationality a better judicial philosophy?

In the hard case of reasonableness poised against arbitrariness, instead of crafting a dubious rule, why not consider which interpretation is legitimate—a consideration that requires consulting empirical and legal materials? Legal Rationalism misunderstands human nature and is internally inconsistent. The rationality of heuristics which bias judicial decision-making (clear statement rules) must be understood in the context of cognitive neuroscience. Legal Rationalism encodes a series of heuristics upon legal actors in its bias towards rule-based reasoning. Functionalism thus entails a methodological shift in jurisprudence that redefines legal rationality. Functionalism means that judges must focus on the empirical validity of the decision-making process. Cognitive neuroscience can help legal actors determine if heuristics, which are non-propositional, are part of a rational jurisprudence or not. Legal theory and cognitive neuroscience can reach consilience in proposing research questions: whether the rule of law requires (1) accounting for or constraining heuristic biases or (2) either (a) eliminating heuristic biases, (b) determining which heuristic biases are valid, or (c) delimiting decision-making from any heuristic or doctrinal factors. These are the sorts of jurisprudential questions cognitive neuroscience can help answer.

Legal Rationalism is an epistemological theory. As such, rationalism makes prescriptive claims on how judges ought to reason. And, as suggested in Part II, these prescriptive claims form biases in the ways judges actually reason. As Gary Peller observes, legal concepts "are supernatural entities which do not have a verifiable existence except to the eyes of faith."[40] Legal rules "which refer to these legal concepts, are not

40. Gary Peller, *The Metaphysics of American Law*, 73 CALIF. L. REV. 1151, 1226 (1985).

descriptions of empirical social facts . . . nor yet statements of moral ideals, but are rather theorems in an independent system."[41] We will examine the biasing effect of Legal Rationalism in more detail.

A. Legal Rationalism Biases Judgment

The received theory of the rule of law, committed to rational standards of clarity, predictability, and consistency, is bound up by a folk psychological conception of rationality.[42] Under this theory, reason is understood as a force capable of subsuming the complexities of law into cogent, enunciable legal propositions. Rule-based reasoning requires that choices "be adequately represented, conceptualized, and considered[]" within the confines of legal rules.[43] Legal rules are certain, commensurable, and universal by being articulated as clear statements (propositions) of law. Rationality is thought to be expressible and accessible through propositions.[44] Rational judging is reasoning through rules. These maxims are central to Legal Rationalism.

The rule-based reasoning view of legal rationality cannot be defended as a complete rendering of legal decision-making. The fact that we know more than we can say presents problems for the notion that all knowledge is propositional or rule-like.[45] Knowledge that is tacit (e.g., experiential judgment, habit, or skill) is a legitimate candidate for rationality and yet is excluded from the rule-based model of legal rationality.[46] Moreover, the rule of law should be able to more fully account for gap-filling behavior by judges.

If rule-based reasoning is a weak characterization of legal decision-making, then the rule of law may be an incomplete theory of rationality. Judges, who use heuristics in legal reasoning, are seeking to make rational decisions. But this decision-making process is often neither legitimate nor rational under the strict Legal Rationalism definition of rationality

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41. *Id*. at 1226–27.

42. *See* Cohen, *supra* note 5, at 821 ("How are we going to substitute a realistic, rational, scientific account of legal happenings for the classical theological jurisprudence of concepts?").

43. PIERRE SCHLAG, THE ENCHANTMENT OF REASON 45 (1998).

44. MICHAEL OAKESHOTT, *Rationalism in Politics*, *in* RATIONALISM IN POLITICS AND OTHER ESSAYS 5, 16, 22 (Timothy Fuller ed., Liberty Press new and expanded ed. 1991) (1962); *see also* POLANYI, *supra* note 24, at 17.

45. *See* POLANYI, *supra* note 24, at 17.

46. *Consider, e.g.*, Cohen, *supra* note 5, at 822 ("[T]he term 'functional approach' is sometimes used to designate a modern form of animism, according to which every social institution or biological organ has a 'purpose' in life, and is to be judged good or bad as it achieves or fails to achieve this 'purpose.'").

described above. Judges use standards (consistency, clarity, predictability) as heuristics to legitimize their opinions; but if the function of heuristics is to fill gaps ("gap-filling") in the legal reasoning process, can these justifications be considered rationally legitimate?

The phenomenon of "gap-filling" in legal reasoning reflects the limits of the Rationalist theory of law. Gap-filling occurs when a judge is presented with a series of facts that support two mutually exclusive rules. Judges often cannot resolve these "hard cases" by appealing to principles of clarity, predictability, and consistency. In novel situations, the appropriate legal rules are not clear, and the lack of precedent makes any legal conclusion in the case difficult to predict and apply. Judges therefore use heuristics to fill the gap between the rules.[47] What is clear is that the rules alone cannot resolve the dispute in these hard cases. So in practice, the judge is using legal tools to make his or her conclusion appear legally valid.[48] The result is that a rule or a rule-like principle appears to be invented.

For Ronald Dworkin, the legal rules themselves necessitate certain underlying principles and policies that ultimately direct the judge's decision in the case. Under Dworkin's "best constructive interpretation" theory, judges first decide cases by determining which principles best fit, or make sense of, the institutional history of the legal system and then, second, decide the case by selecting the principles that best reflect that institutional history "from the standpoint of political morality."[49] In other words, legal rules only become meaningful after a judge has made a decision that comports with good policy. Those rules then become defined in the form of an opinion that justifies these rules as serving an instrumental role in arriving at a particular legal conclusion.

What is necessary is an approach that allows for the "redefining [of] concepts and problems in terms of verifiable realities. . . ."[50] Indeed, "[o]ur

47. RONALD DWORKIN, TAKING RIGHTS SERIOUSLY (1977); *Cf.* Oliver Wendell Holmes, *The Path of the Law*, 10 HARV. L. REV. 457, 461 (1897) ("The prophecies of what the courts will do in fact, and nothing more pretentious, are what I mean by the law.").

48. SCHLAG, *supra* note 43, at 31–35. *Cf.* KENT GREENAWALT, STATUTORY AND COMMON LAW INTERPRETATION 43 (2013) ("'The hard truth of the matter is that American courts have no intelligible, generally accepted, and consistently applied theory of statutory interpretation,' remains true for our federal courts.") (quoting ALBERT M. SACKS & HENRY M. HART, JR., THE LEGAL PROCESS 1169 (William N. Eskridge, Jr. & Philip Frickey eds., 1994); Karl Llewellyn, *Remarks on the Theory of Appellate Decision and the Rules or Canons about How Statutes are to be Construed*, 3 VAND. L. REV. 395, 396 (1950) (Judges create the illusion of rational decision making when choosing among conflicting interpretations).

49. DWORKIN, *supra* note 3, at 256.

50. Cohen, *supra* note 5, at 822.

legal system is filled with supernatural concepts, that is to say, concepts which cannot be defined in terms of experience, and from which all sorts of empirical decisions are supposed to flow."[51]

The confusion about rationality in the law is responsible for the confusions in the rule of law as a theory. If we are to look at the best candidate for understanding the rationality of individuals making decisions, that locus is not legal theory but social science, particularly the science of the brain.[52] While legal theory gives rationality an emotive function (whether explicitly or implicitly), neuroscience views rationality as a mere description of how the brain works. If it turns out that human reasoning involves logical, emotional, analytic, and sensory processes, *inclusive*, then a complete account of the rationality of legal reasoning yields a definition of rationality in stark distinction from the traditional conception of rationality that our legal tradition has inherited from the Enlightenment.

B. Functionalism

Functionalism's commitment to a theory of legitimacy is informed by the key neuroscientific finding that the rationalist bifurcation of "reason" and "emotion" is untenable.[53] By recognizing that actual decision-making involves processes categorically deemed to originate in both "reason" and "emotion," functionalism suggests that rationality in legal decisions is the product of legitimate judicial decisions—ones that recognize the role underlying emotional considerations play in human reasoning. On a more formal level, the approach to legitimacy rationalizes the legal process by recognizing (and avoiding) bias, particularly those biases informed by the reasoning model that bifurcated reason and emotion.

In the history of political thought, the focus on legitimacy was an artifact of Enlightenment thinking concerned with the non-arbitrariness of legal authority. Positivism represents Enlightenment rationalism for law: what is rational or reason-based guarantees against non-arbitrariness and therefore suffices for political legitimacy. While legal positivists tended to focus on the "rationality" or reasoning of judicial decisions, they aimed to produce a scientific account of law—the results of which were both non-

51. *Id*. at 823.

52. ANTONIO R. DAMASIO, DESCARTES' ERROR: EMOTION, REASON, AND THE HUMAN BRAIN 34–37, 41–45 (Quill 2000) (1994).

53. Contemporary legal theorists distinguish between social and moral facts. *See, e.g.*, SCOTT J. SHAPIRO, LEGALITY 275 (2011). The neurosciences suggest that these sorts of bifurcations are not only meaningless but lead to potentially erroneous decisions.

scientific and irrational. The cognitive and neurological sciences, as a principle of decision-making, suggest that good decisions are the result of both "reason" and "emotion," which involves minimizing bias, supplanting information, and recognizing error. Functionalism is thus a marked improvement from current theories of legal decision-making.

The judiciary is biased by rule-based reasoning and the foundations of rationalism. If the rule of law is aimed at ensuring fair play and substantial justice and if rule-based reasoning cannot fully ensure this goal nor account for bias, then a more muscular theory of law would be one that can account for those heuristic biases. Contemporary legal scholars have recognized the "large and growing body of scholarship [which] exhibits a willingness to modify the rationality assumption by using cognitive science, behavioral psychology, and experimental economics."[54] That is perhaps what neuroscience offers to the law as a foundational matter—it can provide evidence of preferences or biases that affect judicial reasoning, but it is up to the jurists to announce whether those biases should be eschewed from judicial calculation or somehow accounted for.

Yet, as scholars working at the juncture of law, neuroscience, and economics have observed, the model of rationality inherited from the rationalist conception of the rule of law is flawed. "[T]he assumptions that humans always follow their rational self-interest or that preferences can necessarily be stated in a coherent way are incorrect, and therefore the conclusions that follow from them are questionable."[55] Indeed, the rule of law virtues—neutrality; generality; clarity; publicity; prospectiveness; certainty; consistency; forward-lookingness; non-arbitrariness; fairness; finality; efficiency; predictability; constancy; stability; intelligibility; clear-statement rules; non-retroactivity; judicial deference; and judicial discretion—which judges depend upon for the legitimacy of their reasoning—are precisely those assumed premises that have yielded questionable conclusions.

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54. John N. Drobak & Douglass C. North, *Understanding Judicial Decision-Making: The Importance of Constraints on Non-Rational Deliberations*, 26 WASH. U. J.L. & POL'Y 131 (2008). *See* Thomas J. Miles & Cass R. Sunstein, *The New Legal Realism*, 75 U. CHI. L. REV. 831, 834 (2008) ("We believe that much of the emerging empirical work on judicial behavior is best understood as a new generation of legal realism.").

55. Kevin McCabe, Vernon Smith & Terrence Chorvat, *Lessons from Neuroeconomics for the Law*, *in* THE LAW AND ECONOMICS OF IRRATIONAL BEHAVIOR 68 (Francesco Parisi & Vernon L. Smith eds., 2005).

The fact that the rule-based reasoning aspect of the Rationalist theory breaks down in hard cases proves important to legal theory.[56] For legal theorists, "[t]he law functions not only to resolve typical cases but also to extend existing concepts and categories to new facts."[57] Moreover, it is these hard cases which best exemplify the inutility of these rule-of-law virtues, that is, the "metaphysics" or "transcendental nonsense" of jurisprudence itself. Or, as Felix Cohen has argued:

> Valuable as is the language of transcendental nonsense for many practical legal purposes, it is entirely useless when we come to study, describe, predict, and criticize legal phenomena. And although judges and lawyers need not be legal scientists, it is of some practical importance that they should recognize that the traditional language of argument and opinion neither explains nor justifies court decisions.[58]

Cohen critiqued those legal concepts which informed legal theory yet which could not be defined through experience.[59] For Cohen, jurisprudence's tendency to rely on theoretical, non-empirical concepts distracts judges from being realists about legal decision-making (i.e., viewing their decisions as based on social policy, economics, and other extralegal considerations).[60] The "mechanical jurisprudence" Cohen attacked represents the system of rule-based legal reasoning upheld by legal rationalists.

Critics of legal formalism believe that the rationalist position relies upon a certain metaphysical picture that presents law as rationalistic when, in reality, jurisprudence is really an exercise in social policy.[61] The challenge is whether the claim that "law is about social policy" is necessarily inconsistent with the proposition that "the rule of law depends upon a rational theory of law." It may be the case that judges making decisions on the basis of social policy is a rational approach to law once the judiciary accepts the functional argument as a theory of rationality and debiases itself from Legal Rationalism.

Functionalism redefines the limits of rationality. It does not merely substitute the empirical for the rational. Recent work in neuroscience

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56. Jens David Ohlin, *Is the Concept of the Person Necessary for Human Rights*?, 105 COLUM. L. REV. 209, 230 (2005).
57. *Id.*
58. Cohen, *supra* note 5, at 812.
59. *Id*. at 823.
60. *Id*. at 842.
61. *Id*. at 812.

reveals that emotions are central to human rationality.[62] This research suggests that rationality in decision-making and emotion are complementary.[63] In fact, emotions have been shown to be crucial for the facilitation of cost-benefit analysis reasoning in decision-making.[64] At the same time, understanding the neuroscience behind decision-making helps point to biases, both heuristic and physiological, that influence (or impair) decision-making. Neuroscience reveals that emotion is the "first response" in that we exhibit emotional reactions to objects and events far more readily than we can articulate what those objects and events are or mean.[65] Strong stimuli to the amygdala inhibit activity in the prefrontal cortex, the region of the brain associated with logical deliberations and reasoning ability, which suggests that extreme emotional reactions can "short-circuit" rational deliberation.[66] Andrew Lo argues that the sorts of "threats" identified by the amygdala are not actually life-threatening: even if "our physiological reactions may still be the same[,] . . . the suppression of our prefrontal cortex may be unnecessary and possibly counterproductive . . . ."[67]

Once we disabuse ourselves of the commitment to a normative theory of rationality and instead realize that rationality is merely a description of how the brain, or the human organism, or the body politic, works, then we can stop trying to determine what makes law rational.

If rationality is a question of "working well," then law is rational if it is able to account for the empirical data at issue in a dispute or for any other material facts relevant to the judge's ability to make a legitimate decision. If legal disputes could be reduced to the black letter law, all disputes would end at the summary judgment stage: the judge would be entitled

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62. *See, e.g.*, DAMASIO, *supra* note 52. *See also* Edmund T. Rolls, *A Theory of Emotion, and Its Application to Understanding the Neural Basis of Emotion*, 4 COGNITION & EMOTION, no. 3, 1990, at 161; Edmund T. Rolls, *Neurophysiology and Functions of the Primate Amygdala*, *in* THE AMYGDALA: NEUROBIOLOGICAL ASPECTS OF EMOTION, MEMORY, AND MENTAL DYSFUNCTION 143 (John P. Aggleton ed., 1992); Edmund T. Rolls, *A Theory of Emotion and Consciousness, and Its Application to Understanding the Neural Basis of Emotion*, *in* THE COGNITIVE NEUROSCIENCES 1091 (M. Gazzaniga ed., 1995).

63. Stephen Grossberg & William E. Gutowski, *Neural Dynamics of Decision Making Under Risk: Affective Balance and Cognitive-Emotional Interactions*, 94 PSYCHOL. REV. no. 3, 1987, at 300.

64. EDMUND T. ROLLS, THE BRAIN AND EMOTION ch. 10.3 (1999).

65. *See* GAVIN DE BECKER, THE GIFT OF FEAR: SURVIVAL SIGNALS THAT PROTECT US FROM VIOLENCE (1997); R. B. Zajonc, *Feeling and Thinking: Preferences Need No Inferences*, 35 AM. PSYCHOL., no. 2, 1980, at 151; R. B. Zajonc, *On the Primacy of Affect*, 39 AM. PSYCHOL., no. 2, 1984, at 117.

66. ROY F. BAUMEISTER ET AL., LOSING CONTROL: HOW AND WHY PEOPLE FAIL AT SELF-REGULATION (1994).

67. Andrew W. Lo, *Fear, Greed, and Financial Crises: A Cognitive Neurosciences Perspective*, *in* HANDBOOK ON SYSTEMIC RISK 622, 642 (Jean-Pierre Foque & Joseph A. Langsam eds., 2013).

only to evaluate material issues of fact and render judgments based on those facts, as a matter of law. Appeals would not be necessary because they would suggest that the law is unclear or that a trial judge misapplied the law, which would be impossible if the law was clear and proposition-like. And yet judges are engaged in deciding what the law is, which entails that the question, "What is the law?" is not clear, *a priori*. The rationality of law, then, derives from the legitimacy of the reasoning and analysis, not some formulaic ordering of black-letter rules.

Findings in cognitive neuroscience can help judges recognize bias within their decision-making process. Some might interpret the results of functionalism as implying judicial conservatism by recognizing that certain external preferences might bias decision-making, and, therefore, that recognition of bias encourages judicial deference to strict proposition-based reasoning; however, on the contrary, some might interpret functionalism as suggesting an engaged decision-making process which looks at propositional thinking as overly biased in ways that ignore relevant experiential factors that may increase precision and accuracy in the decision-making process. Whether the option is to overcome bias or merely determine which biases are relevant or useful, functionalism provides unique conceptual tools for judicial decision-making and sets the foundation for theorizing about jurisprudence.

This is not to say that jurisprudence becomes merely one branch of neuroscience or that law is reducible to cognitive neuroscience. Functionalism merely probes the relationship between the nature of human reasoning and the structure of law—the goal of jurisprudence and legal philosophy. No one is likely to disagree that cognitive neuroscience reveals deep insights about the nature of reasoning. And this has implications for the nature of legal reasoning. Legal Rationalism, inclusive of positivism and formalism, purportedly focuses on the rationality of legal decision-making with the end-goal of ensuring a legitimate, non-arbitrary, and deferential system of jurisprudence. But, as has been shown above, the backdrop of rationality and the system of rule-based reasoning are deeply confused. Functionalism, if anything, seeks to minimize the obvious errors involved in rationalistic legal reasoning. As a practical matter, because functionalism is concerned with the validity of the reasoning process, it promotes a jurisprudence focused on legitimacy, with the end goal of ensuring the rationality of the decision-making process.

Neurocognitive insights into decision-making are of practical help to judges. By approaching legal questions from the background of neuroscientific insight into the tacit bases for judicial preferences that influence decisions, judges can be more attuned to their own reasoning

process. Functionalism means that an ideal theory of law must be able to either account for or constrain these preferences. Formalists might find the idea of constraining tacit judicial preferences appealing as a form of judicial restraint; critical theorists might find the idea of jurisprudence accounting for the universe of preferences attractive as a form of judicial openness or integrity; yet, whichever judicial ideology one finds attractive, both views would be uninformed without recognizing the relevance of cognitive neuroscience. A judge who focuses on legitimacy would ask him or herself whether there are background influences involved in his or her decision-making process and would seek to articulate why—or why not—those influences are important for a valid decision. This kind of self-reflectiveness, I would argue, rather than a strict concern for formulaic or canonized jurisprudential structure, is actually necessary for rational legal thought. The heuristic bias towards rationalism is itself non-rational. Functionalism provides a more workable theory of law and provides a stronger foundation for debates about judicial discretion.

Evaluating how judges decide cases is not a question of formal rules, but of cognitive legitimacy. The social-political event of judging, when legitimate, effectively rationalizes the legal process itself. Instead of conceiving of the rule of law in terms of an antediluvian notion of rationality, one that makes judges susceptible to the heuristic bias that rule-based reasoning is accurate, complete, or, most importantly, non-arbitrary, a better jurisprudential bias is one where judges concern themselves with the apparent legitimacy of their reasoning and decision-making. If judges were to concern themselves with empirical validity, judicial determinations would be better, more accurate, and less arbitrary. In other words, they would be more legitimate and rational.

Functionalism does not need to make the realist move (i.e., to use fMRI studies to determine how judicial brains work). Neuroscience and cognitive psychology best contribute to jurisprudence in revealing facts about human behavior and human decision-making that help judges minimize bias in their reasoning. While the concern of Enlightenment liberalism was fighting political arbitrariness and elevating reason in society, the concern of functionalism is fighting heuristic bias in the law. The end of functionalism is ultimately one shared by liberalism: political legitimacy and the promotion of rationality in law.

Functionalism theorizes about neuroscience in terms of social events, and judicial events in particular. Functionalism advocates a judicial approach that recognizes the potential for error in legal reasoning and humbly seeks to reduce error by recognizing the value of empirical research. So long as there are reasons to accept that judge-made law ought

be a rational, as opposed to arbitrary, process, and so long as there are legitimate reasons to believe that legal formalism may subject judges to err in their decisionmaking, then a jurisprudence of functionalism should help to redefine how we understand the law as a rational process.[68]

Functionalism is a special theory of judicial outcomes, as opposed to legislative determinations. The legislative process, while incorporating legal analysis, is chiefly not concerned with the reasoning process of legislators as much as the bargaining process amongst interested parties. Legislative error is corrected by the people who elect legislators. Judicial error must be corrected by judges; as a practical matter, when legislative bodies overturn judicial decisions, it is less because of the errors in reasoning or judgment about what the law is so much as the perceived error in judgment of what the law should be given a certain political preference or context.

Just as Plato sought to define "justice" by assessing the activities of a just state,[69] and Aristotle conceived of the soul as the way a living body behaves,[70] functionalism's skepticism towards rule-based reasoning helps to redefine legal rationality as the phenomenon of legitimate judicial decision-making. Felix Cohen recognized that creative legal thought looks "behind the pretty array of 'correct' cases to the actual facts of judicial behavior" and makes "increasing use of statistical methods in the scientific description and prediction of judicial behavior."[71]

The received theory of the rule of law suggests that the rational judge obfuscates social policy via technical rules. While realism sought to place social policy as the foundation "that gives weight to any rule or precedent,"[72] functionalism suggests that it would be an error for judges to a priori reject social policy foundations to legal outcomes as irrational, "activist," or an abuse of discretion.

Evaluating how judges decide cases is not a question of formal rules, but of social science. The social act of resolving a dispute, if a normatively and empirically legitimate assessment of the relevant information before

68. 5 CHARLES SANDERS PEIRCE, COLLECTED PAPERS OF CHARLES SANDERS PEIRCE 1, 6 (Charles Hartshorne & Paul Weiss eds., 1934) ("In order to ascertain the meaning of an intellectual conception one should consider what practical consequences might conceivably result by necessity from the truth of that conception; and the sum of these consequences will constitute the entire meaning of the conception.").

69. PLATO, THE REPUBLIC OF PLATO (Allan Bloom ed. & trans., 2d ed. 1968).

70. 3 ARISTOTLE, *De Anima*, *in* THE WORKS OF ARISTOTLE 402 (W.D. Ross & J.A. Smith eds., 1931).

71. Cohen, *supra* note 5, at 833.

72. *Id.* at 834.

the court, guarantees the rationality of the legal process. Instead of conceiving of the rule of law in terms of Rationality (rule-based reasoning) guaranteeing Legitimacy (non-arbitrariness), it appears that a better theory of law is one of functionalism—that is, where Legitimacy (examining all relevant information) guarantees Rationality (optimal decisions). Functionalism theorizes about neuroscience in terms of social events, and judicial events in particular. The study of neuroscience as a social science leads to better predictability for assessing adjudication than does the rationalistic approach of rule-based reasoning.

John Drobak and Douglass North acknowledge the rationalism of contemporary legal reasoning, claiming, "[t]he dominant model of judicial decision-making is an outgrowth of rational choice theory: the judge is a rational actor who reasons logically from facts, previous decisions, statutes, and constitutions to reach a decision."[73] And yet Drobak and North explain that "[e]veryone knows, however, that this model explains only part of the process."[74]

While legal realism and its progeny critiqued rule-based reasoning for "failing to include non-doctrinal factors that affect the outcome of cases[,]"[75] this response well recognizes the symptoms of rule-based reasoning without diagnosing the pathology. Drobak and North recognize the underlying heuristic biases involved in judicial decision-making, ultimately supporting a functional approach: "[i]n order to understand fully how judges decide cases, we need to understand how the mind works."[76]

Ultimately, debiasing legal reasoning and broadening legal reasoning to account for a fuller picture of experience suggests that "[w]e need to know how judges perceive the issues involved in lawsuits, how they see competing priorities and available choices, and how they make their decisions."[77]

One of the key problems with propositional accounts of legal decision-making is the question of discretion. While judicial discretion is often justified on the basis of definitive rules and principles, "the non-doctrinal factors that make up discretion are an invisible part of judicial decision-making that cannot be explained with any precision . . . ."[78] Ultimately

73. Drobak & North, *supra* note 54, at 131.
74. *Id*.
75. *Id*. at 132.
76. *Id*.
77. *Id*.
78. *Id*. at 134.

Drobak and North argue that "we cannot understand all the hidden factors that influence judicial outcomes."[79]

A contemporary legal realist cannot ignore the science of the brain. This realist turn in legal theory, that is to say, the attempt to justify jurisprudence empirically, is deeply pragmatic, for the meaning of law becomes derived from the description of its processes: "[i]n order to ascertain the meaning of an intellectual conception one should consider what practical consequences might conceivably result by necessity from the truth of that conception; and the sum of these consequences will constitute the entire meaning of the conception."[80] Functionalism, as a jurisprudential method, demands the debiasing of the judiciary from rules and principles that eschew empirical research from meaningful incorporation into the legal reasoning process.

One might wonder why functionalism is a distinctly jurisprudential, versus, say, legislative approach to decisionmaking. Or, one might suggest that the formalism of jurisprudence works to preserve the coordination between the different branches and that empirical evaluation and pragmatic considerations are better suited for the legislative branch or administrative agencies, but only the judiciary is intrinsically concerned with legal reasoning. Legislation is the result of accumulated political interests, and administrative rules serve a regulatory purpose within a field—these laws are not governed by any particular type of legal reasoning and are designed to serve either niche public policy concerns or constitutional interests under the spending, commerce, and general welfare clauses. The Constitution specifies that Article III lawmakers are resolving disputes between parties, in the form of an actual case or controversy. How these disputes are resolved have public policy consequences and rational, predictable, and pragmatic resolutions of these disputes are necessary to the United States' constitutional preservation.

Functionalism's rejection of the canon of rule-based reasoning seeks to redefine legal rationality as the phenomenon of legitimate judicial decision-making. Felix Cohen recognized that creative legal thought looks "behind the pretty array of 'correct' cases to the actual facts of judicial behavior" and makes "increasing use of statistical methods in the scientific description and prediction of judicial behavior."[81] The received theory of the rule of law suggests that the rational judge obfuscates social policy via technical rules. Functionalism instead places social policy as the

79. *Id*. at 135.
80. C.S. PEIRCE, *supra* note 68, at 6.
81. Cohen, *supra* note 5, at 833.

foundation "that gives weight to any rule or precedent."[82] And neuroscience, with its ability to explain the phenomenon of human decision-making, can prove useful in determining whether placing social policy within the foundations of law is, in fact, a rational approach to judging. Functionalism offers more than just the creative destruction of dusty canons and ratiocinated modes of thinking. It offers a chance for law to be truly rational and truth-tracking, which was the project of Enlightenment liberalism from the start.

V. HEURISTIC BIAS AND ADMINISTRATIVE LAW

As cognitive neuroscience is a relatively new field, especially as its insights apply to law, functionalism, at best, can do little substantive work in legal reform. However, what it does do is allow us to admit that heuristic biases exist in the legal decision-making process. And it suggests that an experientially-informed approach, one that rejects the rationalistic fantasy of bifurcating objective reason and subjective emotion, is best suited to preserving the liberal understanding of the rule of law. That is to say, recognizing heuristic biases and debiasing judicial reasoning via evidentiary openness is crucial to jurisprudential legitimacy—the touchstone of the rule of law. And it is exercising a jurisprudence of legitimacy that ultimately ensures the legal process is rational.

A hallmark of administrative law is the Administrative Procedure Act (APA),[83] which usually requires that the public be placed on *notice* of a proposed administrative rule, as well as be given the opportunity to *comment* on the proposed rule ("notice and comment"). The legislative justification for the notice and comment provision is to ensure basic due process protections and fairness in the rulemaking process, especially when, as opposed to legislative rules, administrative rules are derived from federal agency employees who are not elected, and therefore not directly accountable to the people.

Functionalism is particularly relevant in administrative law matters where courts tend to defer to the administrative expertise of federal agencies. Federal agencies generally act by engaging in informal rulemaking or adjudications.[84] But consider the empirical evidence

82. *Id.* at 834.

83. 5 U.S.C. §§ 500–706 (2013); *see also* W. Radio Servs. Co. v. U.S. Forest Serv., 578 F.3d 1116, 1123 (9th Cir. 2009).

84. *Compare* Bi-Metallic Inv. Co. v. State Bd. of Equalization of Colo., 239 U.S. 441 (1915) (discussing general rulemaking standards) *with* Londoner v. City and County of Denver, 210 U.S. 373

showing discretionary decisions in federal agencies, including those about spending, are susceptible to capture by the political interests of Congress and especially the President.[85] Politicized spending would appear to raise a problem of democratic legitimacy. Agency discretionary spending decisions have been reviewed, if at all, as informal adjudications,[86] yet our system of administrative law provides limited remedies for challenging the discretion-based decisions of the government. Neither the courts nor Congress have articulated a remedial scheme for recognizing an injury that results from political or other biases that influence spending decisions committed to agency discretion.

The APA allows aggrieved parties to seek judicial review of final "agency action" so long as review is not precluded by another statute or "committed to agency discretion by law."[87] Such decisions are unreviewable when courts lack "meaningful standard[s] against which to judge the agency's exercise of discretion."[88] However, courts will invalidate actions that are arbitrary, capricious, or an abuse of discretion; contrary to a constitutional right; or in excess of statutory jurisdiction or authority.[89] Courts have established that political interference in the discretionary decision-making process does run afoul of the APA's standards.[90]

(1908) (discussing general adjudicatory standards); *see also* ANDREW F. POPPER ET AL., ADMINISTRATIVE LAW: A CONTEMPORARY APPROACH 25–31 (2d ed. 2010).

85. Sanford C. Gordon, *Politicizing Agency Spending Authority: Lessons from a Bush-Era Scandal*, 105 AM. POL. SCI. R. 717–34 (2011).

86. *See* A GUIDE TO FEDERAL AGENCY ADJUDICATION § 9.02, at 146 (Michael Asimow ed., 2003) (stating decisions regarding "grants, benefits, loans, and subsidies" are informal adjudications).

87. 5 U.S.C. § 551(13); 5 U.S.C. § 701(a). The Supreme Court has held that a decision is committed to agency discretion when "there is no law to apply," Citizens to Preserve Overton Park, Inc. v. Volpe, 401 U.S. 402, 410 (1971) (quoting S. Rep. No. 79-752, at 26 (1945)).

88. Heckler v. Chaney, 470 U.S. 821, 830 (1985).

89. 5 U.S.C. § 706(2). The Supreme Court gave more definition to this test in Motor Vehicles Mfrs. Ass'n of U.S. Inc. v. State Farm Mut. Auto. Ins. Co., 463 U.S. 29, 43 (1983):

> [T]he agency must examine the relevant data and articulate a satisfactory explanation for its action including a "rational connection between the facts found and the choice made." . . . Normally, an agency rule would be arbitrary and capricious if the agency has relied on factors which Congress has not intended it to consider, entirely failed to consider an important aspect of the problem, offered an explanation for its decision that runs counter to the evidence before the agency, or is so implausible that it could not be ascribed to a difference in view or the product of agency expertise.

90. In D.C. Federation of Civic Ass'ns v. Volpe, the D.C. Circuit Court of Appeals found that the Secretary of Transportation moved a bridge project forward too quickly because of undue pressure from a member of Congress. 459 F.2d 1231 (D.C. Cir. 1972). The court refused to allow the action to stand "because extraneous pressure intruded into the calculus of considerations on which the Secretary's decision was based." *Id*. at 1246.

But the remedies for political interference in discretionary spending decisions are limited.[91] Reviewing courts will remand to the agencies and instruct them to make new determinations limited to the merits and with regard to only those considerations made relevant by Congress.[92] This approach recognizes that not all political contacts with a decision maker *per se* taint the final decision. In determining whether political pressure overwhelmed an agency's process, the D.C. Circuit has established a bright-line standard instructing agencies to establish a "full-scale administrative record," such that if a decision is challenged, the agency can rely on the record to support its decision.[93] Under this standard, reviewing courts will provide the agency an opportunity to cure its politically tainted decision. Remand, "rather than a reinstatement of the untainted decisions, is the proper remedy" because, in these cases, courts cannot predict how a decision would have been properly decided on the merits, and there is no reason to think that on remand the taint would necessarily occur again.[94]

A legal rationalist might approach the issues of politicized spending as ones where a certain amount of politicization involved in agency decision-making ought to be accorded deference, thus eschewing the notion that politicized decision making is somehow arbitrary. In fact, several scholars and legal commenters have found the federal courts' consideration of political influence in an arbitrary-and-capricious analysis to be unwarranted.[95] These scholars have instead advocated that reviewing

91. *See* Daniel Z. Epstein, *Redressing Politicized Spending*, 15 ENGAGE, no. 1, Feb. 2014, at 4, *available at* https://www.fed-soc.org/publications/detail/redressing-politicized-spending.

92. *See id*. *Compare* Portland Audubon Soc. v. Endangered Species Comm., 984 F.2d 1534, 1546 (9th Cir. 1993) (where the Ninth Circuit held that political interference in a formal adjudication violated the APA) *with* ATX, Inc. v. U.S. Dep't of Transp., 41 F.3d 1522, 1527 (D.C. Cir. 1994) (where the D.C. Circuit found political pressure did influence the decision maker but instead focused not on the content of the political pressure but on "the nexus between the pressure and the actual decision maker.").

93. Aera Energy LLC v. Salazar, 642 F.3d 212, 221 (D.C. Cir. 2011). In *Aera Energy LLC*, the D.C. Circuit upheld a regional director's politicized decision to exclude certain oil deposits from a leasing scheme because the director admitted that if there was no political influence then he would have *included* the deposits based on criteria not in the statute. The court reasoned that when politics infects a decision, the remedy is not to simply provide the plaintiff with the opposite decision, but instead to remand the decision to an unbiased appeals board or administrative law judge. *Id*. at 212.

94. *Id*. at 220 (internal brackets and quotation marks omitted) (citing Koniag, Inc., Uyak v. Andrus, 580 F.2d 601, 611 (D.C. Cir. 1978)).

95. *See* Elena Kagan, *Presidential Administration*, 114 HARV. L. REV. 2245, 2380 (2001) ("A revised doctrine would acknowledge and, indeed, promote an alternative vision centered on the political leadership and accountability provided by the President. This approach, similar to the one I have considered in discussing the *Chevron* doctrine, would relax the rigors of hard look review when demonstrable evidence shows that the President has taken an active role in, and by so doing has accepted responsibility for, the administrative decision in question.").

courts defer to agency decision-making when presidential influence is involved.[96] These scholarly approaches—unlike the courts' approach to insulate decision makers from political pressure—embrace the inherent political nature of the executive branch's discretionary decisions, under a policy rationale that the President, like Congress, is accountable in ways courts are not.[97] Indeed, the APA sets forth a general principle that courts, when reviewing agency decisions, should defer to the agency given its expertise.[98] Section 10(e) of the APA allows reviewing courts to set aside only agency action that is "arbitrary, capricious, an abuse of discretion, or otherwise not in accordance with law."[99] These sections of the APA have been interpreted by courts in the form of a rule articulated by the Supreme Court in *Chevron USA, Inc. v. Natural Resource Defense Council* ("Chevron").[100] *Chevron* established the doctrinal rule explained as a "test" for reviewing administrative determinations. Under the *Chevron* test, step one, courts review questions of statutory interpretation *de novo* by applying "traditional tools of statutory construction."[101] Statutory interpretation involves certain rules, described as canons of construction. Courts begin with the "plain language" meaning of a statute, but can then apply canons of construction involving the examination of the "structure, purpose, and legislative history" behind the law.[102] If the statute is clear, the agency's construction is not entitled to deference; the Court's sole task

96. *Id.*; *see also* Richard H. Pildes & Cass R. Sunstein, *Reinventing the Regulatory State*, 62 U. CHI. L. REV. 1 (1995); Lawrence Lessig & Cass R. Sunstein, *The President and the Administration*, 94 COLUM. L. REV. 1 (1994); Peter L. Strauss & Cass R. Sunstein, *The Role of the President and OMB in Informal Rulemaking*, 38 ADMIN. L. REV. 181 (1986). Similarly, Yale Law Professor Kathryn Watts urged the courts to consider "the content and the form of the political influence" and engage in line drawing "between permissible and impermissible political influences" because "not all political influences should be treated as equal." Kathryn A. Watts, *Proposing a Place for Politics in Arbitrary and Capricious Review*, 119 YALE L.J. 2, 83 (2009); *see also* Nina A. Mendelson, *Disclosing "Political" Oversight of Agency Decision Making*, 108 Mich L. Rev. 1127 (2010). Watts advised courts to distinguish between "valid 'political' factors . . . [such as] political actors that speak to policy judgments or value-laden judgments [and less-valid] raw partisan politics . . . ." Watts, *supra*, at 83.

97. Chevron USA, Inc. v. Natural Resource Defense Council, 467 U.S. 837, 865–66 (1984) ("While agencies are not directly accountable to the people, the Chief Executive is, and it is entirely appropriate for this political branch of the Government to make such policy choices—resolving the competing interests which Congress itself either inadvertently did not resolve, or intentionally left to be resolved by the agency charged with the administration of the statute in light of everyday realities.").

98. Pillai v. Civil Aeronautics Bd., 485 F.2d 1018, 1027 (D.C. Cir. 1973). *See* Robert L. Rabin, *Federal Regulation in Historical Perspective*, 38 STAN. L. REV. 1189, 1197–1208 (1986).

99. 5 U.S.C. § 706(2)(A) (2012).

100. *Chevron*, 467 U.S. at 837.

101. *Id.* at 843 n.9.

102. Nat'l Cable & Telecomms. Ass'n v. FCC, 567 F.3d 659, 663–64 (D.C. Cir. 2009).

is to enforce the statutory language "according to its terms."[103] Under *Chevron* step two, if, after exhausting traditional tools of statutory interpretation, the court concludes that a statute is ambiguous, then the Court will defer to the agency's interpretation of the statute so long as that determination is reasonable.[104] But even when an agency's interpretation of a statute satisfies *Chevron*, a court must reject that interpretation if it is otherwise arbitrary and capricious.[105] The arbitrary-and-capricious standard requires that an agency's decision be reasonable and reasonably explained.[106]

However, the scholarly approaches identified above are unlikely to persuade courts that have held that agency authority to act comes only from Congress.[107] In fact, the Supreme Court has recently held that a decision is "arbitrary and capricious if the agency has relied on factors which Congress has not intended it to consider . . . ."[108] The federal courts are likely to hold that if Congress wanted presidents and other executive branch officials to incorporate political motivations into their decision-making process, Congress would have included intelligible criteria in its authorizing statutes.

A legal rationalist can rather fluidly apply *Chevron* in a case of politicized decision making because such agency's interpretation of its own rules is likely to be reasonable and reasonably explained. In other words, judicial deference is given to a discretionary fiction of the administrative agency—an interpretation by an unelected political appointee receives deference so long as an unelected reviewing judge believes the interpretation is itself "reasonable."[109] That legal rationalism can legitimate the illegitimate (politicized decision making) strikes at the heart of both the rule of law and the notion of judicial rationality.

What is typically not used in the opinion-based justifications of judicial decision-making is the empirical public policy data that supports certain legal conclusions. "Research from the Congressional Research Service (CRS) suggests that the President will use agency budget requests to

103. Arlington Cent. Sch. Dist. Bd. of Educ. v. Murphy, 126 S. Ct. 2455, 2459 (2006).

104. *Nat'l Cable & Telecomms. Ass'n*, 567 F.3d at 663.

105. Int'l Union v. MSHA, 626 F.3d 84, 90 (D.C. Cir. 2010) (citing *Chevron*, 467 U.S. at 842–44).

106. Mobil Pipe Line Co. v. FERC, 676 F.3d 1098, 1102 (D.C. Cir. 2012).

107. Am. Library Ass'n v. FCC, 406 F.3d 689, 691 (D.C. Cir. 2005) ("It is axiomatic that administrative agencies may . . . [act] only pursuant to authority delegated to them by Congress.").

108. Motor Vehicle Mfrs. Ass'n v. State Farm Mut. Auto. Ins. Co., 463 U.S. 29, 43 (1983).

109. Jerome Frank describes such decision making as follows: "[The judge's decision] is, in every sense of the word, *ex post facto*." JEROME FRANK, LAW AND THE MODERN MIND 125 (Anchor Books 1963) (1930).

influence agency-based discretionary spending in order to reward members of Congress for their votes on a presidential priority."[110] Then-chairwoman of the powerful House Appropriations Committee Congresswoman Nita Lowey (D-NY) submitted a committee report that stated that "[e]armarking or directed spending of Federal dollars does not begin with Congress. It begins with the Executive Branch. . . . The Administration determines these projects through a process that is the functional equivalent of earmarking."[111] "That federal agencies make spending and other discretionary decisions based on the political interests of the President is well-established in the political science literature. John Hudak, a fellow at the Brookings Institution, found that discretionary authority over the allocation of federal dollars provides presidents with the opportunity to engage in pork barrel politics, strategically allocating funds to key constituencies at critical times."[112] Public policy data that can help justify the legitimacy of legal conclusions is not *law*, but it is a rationally appropriate way to provide explanation for decision-making that may otherwise rely upon vague legal fictions.

As the issue of politicized spending shows, questions in administrative law reach incommensurable tensions between what is "reasonable" or what is appropriate "discretion"—tensions which surrender to further biases (policy judgments, formalism, or analytic tests), rather than the logical application of legal rules to relevant facts. Ultimately, rule-based reasoning is not able to rationally certify what is "reasonable"—that is a task for the wisdom of the judiciary. But, so long as that wisdom is couched in a milieu of proposition-like erudition, it will be assumed to be rational.

Functionalism, as a jurisprudential explanation, understands that judges, in hard cases, seek to determine, "What is a legitimate understanding of this case?" Functionalism explains that judges tend to

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110. Epstein, *supra* note 91, at 5.

111. H.R. REP. NO. 110-197, at 3 (2007). *See also* CLINTON T. BRASS ET AL., CONG. RESEARCH SERV., RL34648, BUSH ADMINISTRATION POLICY REGARDING CONGRESSIONALLY ORIGINATED EARMARKS: AN OVERVIEW 4 n.13 (2008), http://fpc.state.gov/documents/organization/110375.pdf (citing Chuck Conlon & David Clarke, "'War' on the Floor," Cong. Qrtrly BudgetTracker, (June 12, 2007), *available at* http://www.cq.com/budgettracker.do (click "Obey's Prepared Briefing Material")).

112. Epstein, *supra* note 91, at 5 (citing John P. Forrester, *Public Choice Theory and Public Budgeting: Implications for the Greedy Bureaucrat*, *in* 6 RESEARCH IN PUB. ADMIN.: EVOLVING THEORIES OF PUB. BUDGETING 101 (John Bartle ed., 2001); Christopher R. Berry et al., *The President and the Distribution of Federal Spending*, 104 AM. POL. SCI. REV. 783 (2010); John J. Hudak, *The Politics of Federal Grants: Presidential Influence Over the Distribution of Federal Funds* 28 (Ctr. for the Study of Democratic Insts. Working Paper No. 01-2011, 2011), *available at* http://www.vanderbilt.edu/csdi/research/CSDI-WP-01-2011.pdf.

consult the evidence, both legal and extra-legal, that provides the best explanation for an ultimate decision on the matter. It views legal materials as conceptual tools which hold weight in the decision-making process. In matters like the above, a judge would look at precedent and formulaic criteria like interpretive canons and holdings from similar cases; congressional intent and the agency's expertise should be considered as well. But a fundamental criterion of the judge's decision-making will be whether the agency's decision-making was legitimate given the available evidence. Judges tend to be conscious of the inability of legal rules to resolve the tensions implicit in hard cases, and in order to avoid the biases involved in analytic gap-filling, judges are drawn to consulting what rule or principle can be legitimately justified. Determining legitimacy is not making a judgment about whether an agency head was rational or exercised proper discretion—our judiciary is often conscious of the biases that enter this sort of calculus. Judges ultimately confront the public policy arguments and tacit biases employed within the administrative process, weighing them as evidence; in doing so, the judge recognizes his or her own biases that defer to agency expertise, finding analogical reasoning to similar cases appealing and viewing empirical research on the legal issue as often irrelevant or merely persuasive authority. In exercising functionalism, the judge will want to consider the available rules and methods useful in resolving the above dispute; this judge will be less concerned with ensuring the rationality of his or her decision, so much as ensuring the legitimacy of that decision—both as a matter of consulting the relevant materials which help provide validity to his conclusions, as well as ensuring, as a cognitive matter, that the errors that arise when an individual human determines what is "reasonable" are as minimal as possible.

An important consideration for discretionary matters in administrative law is the extent to which an agency "[is] vested with discretion"[113] to determine whether adverse comments *may* provide a reasonable basis for withdrawing a rule. As such, the "agency must exercise that discretion in a well-reasoned, consistent, and evenhanded manner."[114] The agency's

113. Martin v. Wilks, 490 U.S. 755, 781 n.19 (1989) (Stevens, J., dissenting).
114. Portland Cement Ass'n v. EPA, 665 F.3d 177, 188 (D.C. Cir. 2011) (citation omitted).

refusal to remove the political taint of a biased adjudication may suggest "too closed a mind"[115] and be inconsistent with sound public policy.[116]

Moreover, the judiciary will recognize the empirical research on the question of deference to agency expertise, which suggests that judicial review of agency decision-making is unstable, with reviewing courts often deferring to agency expertise on grounds of political accountability. Research has shown that:

> [i]n assessing how much to defer to an agency's decision, courts perhaps should focus less on the procedures used by the agency (for example, notice-and-comment rulemaking, informal adjudication, guidance documents) and more on the type of agency, the agency's track record, the agency's expertise, the level of presidential and congressional control over the agency, and the timing of the agency's action.[117]

Judicial consideration of these non-rule-like factors, including which party is in control of the White House and Congress, may track certain legally relevant considerations that affect agency rulemaking (e.g., political independence).[118] By using this kind of evidence to debias the decisionmaking process, one is making more legitimate, and therefore rational, decisions. As one scholar has suggested,

> [i]f an agency faces considerable oversight from Congress and the White House, then perhaps courts should defer to that agency's reasonable decisions, no matter how they are reached (that is, with or without particular procedures) and irrespective of whether the agency possesses specialized expertise. . . . [i]f an agency receives minimal political scrutiny but has extensive expertise, then perhaps courts should also defer to that agency's reasonable actions. However, if an agency confronts little oversight from these actors and does not possess special expertise, then courts should scrutinize that agency's decisions more carefully.[119]

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115. McLouth Steel Prods. Corp. v. Thomas, 838 F.2d 1317, 1323 (D.C. Cir. 1988); *see* Grand Canyon Air Tour Coal. v. FAA, 154 F.3d 455, 468 (D.C. Cir. 1998) ("the agency's mind must be open to considering" comments).

116. Anne Joseph O'Connell, *Political Cycles of Rulemaking: An Empirical Portrait of the Modern Administrative State*, 94 VA. L. REV. 889, 980–81 (2008).

117. *Id*. at 980.

118. *Id*. at 980–81.

119. *Id*. at 981.

VI. CONCLUSION

This Article argued that Legal Rationalism is an insufficient explanation for judicial decisions because it fails to include relevant information or modes of understanding. Legal decision-making as an explanation of the application of law includes rule-based reasoning, social and policy preferences, and empirical analysis. Both Legal Realism (social sciences) and Functionalism (cognitive neuroscience) are necessary to compensate for the insufficiency of Legal Rationalism in explaining judicial decisions. Ultimately, functionalism does not give us a "right answer" to jurisprudential matters, but it does better *explain* what makes a judicial decision rational.

This Article supports a legitimacy-based approach to jurisprudence—and that approach is controversial and refutable. Even assuming that the approach were to gain general acceptance, an empirical question arises: if, as a factual matter, judicial reasoning is not constrained by rules, then what is to say that judges do not, in practice, resolve disputes by determining which legal conclusion is most *legitimate*? In other words, there may be no normative issue involved because judges may already be applying a theory of legitimacy in their actual resolution of cases. Functionalism, then, may be only a descriptive account of judicial reasoning and the theory that judges do not act legitimately in resolving disputes may be highly suspect as an empirical matter. Legal realism suggested that if judges were not constrained by legal rules, then something other than rules must guide their reasoning. Legal realists argued that this other thing was policy, but what if this "something other" was a more descriptive theory of legitimacy, which may or may not involve policy arguments? It might be the case that judges are not deeply biased, as functionalism suggests, but that instead they use reasonable heuristics to resolve disputes, and those heuristics, in practice, may involve an exercise of determining what is, in fact, the legitimate approach. And are we not merely equivocating here between "rationality" and "legitimacy": perhaps judges tend to label as "rational" those decisions that appear intuitively legitimate to them?

This Article, then, expressly advocates a specific theory of legitimacy, one that suggests the possibility of normatively debiasing the judiciary. This theory may be wrong. What the functionalist approach does is examine whether the judicial exercise of discretion is empirically legitimate. Some scholars might agree with the functionalist approach and agree that judges look to legitimize their conclusions in the reasoning process, but they might disagree on what constitutes a valid theory of

legitimacy—in other words, to say that the legitimacy of judicial discretion must be an empirical matter is to go too far. Law is not a science, and legal argument is the forum for checking the legitimacy of judicial opinions—not the experiment room. The goal, then, is to test the theory such that even if the theory fails, the exercise yields insight into the practice of jurisprudence. Functionalism motivates legal thinkers to engage in just this exercise.