Legal Indeterminacy Redux

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Abstract

This Article demonstrates that the rules of any legal system are indeterminate. The argument consists of two theorems. The first theorem proves that legal rules cannot be determined by exemplification. The second theorem proves that legal rules cannot be determined by linguistic pronouncements. Together they establish that neither precedents nor statutes can constrain the set of “legally correct” outcomes in any dispute. Therefore, any apparent patterns or regularities in legal decision-making must have causal sources outside the law. This Article considers several possible external sources, including evolutionary pressures, economic rationality, interest group politics, and social conditioning.

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It is an essential premise of doctrinal law that legal rules decide cases. In this Article, I demonstrate that this assumption is false. Neither precedents nor statutes are capable of unambiguously expressing normative rules. Consequently, it is indeterminable which normative rules are law. Therefore, legal rules cannot decide cases, because legal sources cannot determinately express normative rules. [[2]](#footnote-2) Indeterminacy of this kind is not due to practical obstacles which can arise in the administration of a legal system, nor is it attributable to the fallibility of human judges (although these too will result in “indeterminacy” of a different sort).[[3]](#footnote-3) Rather, the indeterminacy I advance in this Article is intrinsic to the very concept of law. [[4]](#footnote-4)

Though my argument is novel, my conclusion is not. The indeterminacy of legal rules was a basic premise of American Legal Realism.[[5]](#footnote-5) The proposition was further developed by the Critical Legal Scholars in the latter half of the twentieth century.[[6]](#footnote-6) Almost all legal theorists today accept that legal rules are indeterminate. However, “indeterminate” has many meanings.[[7]](#footnote-7) Lively controversy persists as to the extent and nature of legal indeterminacy,[[8]](#footnote-8) and there is much disagreement about its causes and consequences.

Moreover, a significant minority of obdurate holdouts continue to insist that legal rules could somehow still be determinate after all.[[9]](#footnote-9) These professed defenders of legality invariably preface their apologetics by complaining that legal determinism has historically been misrepresented. However, the controversy is not merely semantic. Once the supposed misrepresentations are clarified, there remains a genuine substantive disagreement: they believe that legal rules can determine (or at least constrain) legal outcomes in at least some cases.

Curiously, scholarly interest in the problem of legal indeterminacy has cooled in the decades following the decline of Critical Legal Studies. This may be attributable to the absence of organized opposition to proponents of determinism (if Legal Realism or Critical Legal Studies were ever an “organized” movements),[[10]](#footnote-10) although it is unclear why opposition requires organization to produce arguments.[[11]](#footnote-11) A more likely explanation is simply the fickleness of academic fashion. This is rather unfortunate, for the indeterminacy question is foundational to the law. Indeed, it is difficult to fathom any question more fundamental than whether legal rules exist.

This Article consists of two parts. In the first part, I reformulate legal indeterminacy in the language of mathematics.[[12]](#footnote-12) I then demonstrate that legal rules are *necessarily* indeterminate. The mathematical approach I employ contributes to the debate in two important respects. It replaces the tendentious interpretation of anecdotal evidence (characteristic of historical arguments advancing legal indeterminism) with the rigor and security of deductive proof. Formalization of the argument also serves a communicative function, clarifying previously inexact formulations of the indeterminacy thesis which have been the source of persistent misunderstandings.[[13]](#footnote-13)

In the second part of this Article, I explain why legal rules nevertheless *seem* to determine legal outcomes. I expect that most lawyers share a strong intuition that legal outcomes are not totally arbitrary. This intuition is manifest when law-trained observers predict with better-than-random probability the outcomes of cases. If legal rules are indeterminate, then some account of this predictability is wanted. I accept that legal decision-making is patterned. However, observable patterns in judicial decision-making need not be caused by legal rules. I enumerate some plausible nonlegal explanations why legal outcomes can seem systematic.

# Proof of legal indeterminacy

## Definitions and assumptions

Let us begin by defining terms. I should clarify at the outset that the definitions which follow are not intended to assert any grand philosophical claims about the nature of the concepts commonly attached to them. They are merely intended to precisify the meanings of words in the context of this Article. Although I aim to construct definitions which approximate ordinary usages, if my terminology should happen to diverge from a reader’s intuitions, then my usages should be treated as terms of art which simply denote concepts *different* from those intuitions. I will not quibble over whether my definitions are the “correct” definitions.

Let us first consider the term “rule.” A rule is an abstract generalization which can be expressed in the form of a conditional.[[14]](#footnote-14) A “conditional” is an “if-then” proposition. To be an “abstract generalization,” the antecedent of the conditional must describe a *set* of possible cases rather than an individual case.[[15]](#footnote-15) Depending on the predicate term in the consequent of the conditional, rules may be characterized as being either “normative” or “descriptive.”[[16]](#footnote-16) If the consequent *prescribes* an outcome, then it is normative. If the consequent *describes* an outcome, then it is descriptive.[[17]](#footnote-17)

Let us now define what it means for a rule to be a *legal* rule. There are three conditions which characterize “legal rules” in the present context. First, a legal rule must be a rule. Second, a legal rule must be normative. Third, a legal rule must be recognized as lawby some secondary rule accepted by legal officials—a “rule of recognition.”[[18]](#footnote-18) A rule of recognition is a nonlegal normative rule, which identifies which other normative rules count as law.[[19]](#footnote-19) Note that the third condition makes the legality of a rule contingent upon its relation to a given legal community.

For example, it is a putative legal rule of common law systems that if a promisor breaches a contract, then he should pay damages equal to the promisee’s expectation interest. First observe that the proposition is a conditional. Next, the antecedent describes a *set* of possible circumstances, which means it is abstract and general. Therefore, it is a *rule*. Second, it is *normative* because it asserts an ‘ought’ claim. And third, it is inferable from precedent cases,[[20]](#footnote-20) which are sources of law in the common law. Therefore, expectation damages seems to be a legal rule in the common law.

There are some subtleties in the second condition which warrant further explication. I say that legal rules are normative rules, and that normative rules assert ‘ought’ propositions. Yet this naturally invites the inquiry: *to whom* is the ‘ought’ directed? Consider the putative legal rule that if a person negligently injurers another person, then he should compensate his victim the money equivalent of the harm they suffered. Notice that it is ambiguous whether this rule is directed at the tortfeasor, imposing on him a duty to pay damages, or whether it is directed at the court, imposing on it a duty to assign liability.

I intend “legal rules” to mean the latter. They are rules which instruct *legal officials* how to make legally correct decisions.[[21]](#footnote-21) Defined in this way, legal rules do not *directly* guide the conduct of ordinary citizens. Rather, they *entail* normative rules for ordinary citizens. Note that the normative rules which are entailed by legal rules are not *ipso facto* legal rules themselves. Take the negligence rule as an example. If courts consistently apply the negligence rule, then their behavior will affect the incentives of ordinary citizens. If prospective injurers wish to avoid liability, then they should exercise reasonable precautionary care when undertaking risky activities. Thus, it is a *practical consequence* of the legal rule that if a prospective injurer engages in a risky enterprise, then he should exercise due care.[[22]](#footnote-22) Yet it is not a “legal rule” under my definition.

Other people may define “legal rules” as norms applying to the conduct of ordinary citizens.[[23]](#footnote-23) For different theoretical uses, that may be a more useful way of defining the term. However, I think that my definition is somewhat more consistent with ordinary usage. The law (*qua* institution) operates via the adjudication of disputes. The rules which govern how disputes ought to be decided are thus the rules of law. It would therefore be sensible to identify these rules of law as “legal rules.” And it is natural to regard the *incentives* they create as being the *effects* of legal rules. Regardless whether this is sensible usage generally, it is how I shall use the terms in this Article.

Next consider the contrapositive: that descriptive propositions *cannot* be legal rules. This means that mathematical truths and scientific principles cannot be legal rules,[[24]](#footnote-24) because they are not the *kinds* *of things* that could be “law.”[[25]](#footnote-25)

I believe this restriction is consistent with conventional usage. A descriptive rule can surely *describe* the law, yet it cannot *be* the law. For example, consider the rule that if a criminal defendant goes to trial for a felony offense in federal court, then there is a 78% probability that he will be convicted. This is clearly a *descriptive* rule (and it also happens to be true).[[26]](#footnote-26) And for that reason it is obviously not the kind of thing that could be a *legal* rule. I expect this accords with most people’s intuition. The statistical fact does not tell a court how it *ought* to decide a given controversy. It merely asserts a historical pattern—or a probabilistic “propensity.” It has neither the power to guide nor to justify a decision.

Sometimes legal rules *seem* to be descriptive rules. For example, it is a descriptive rule that if a person unlawfully kills another person with malice aforethought, then he is guilty of murder.[[27]](#footnote-27) However, this mode of expression is misleading. What such statutes really mean is that if a person unlawfully kills another person with malice aforethought, then he *should be* convicted of murder. That the defendant *is* guilty when those elements are present is merely an observation. It is a pattern that a stranger to the legal system might infer after some observation.[[28]](#footnote-28) By contrast, it is an imperative for actors acting within the legal system that the defendant *should be* foundguilty. It prescribes a “correct”outcome.

This distinction is important for the second part of this Article, and it warrants clarification. Consider the Venus flytrap. It is a carnivorous plant, which possesses a specialized leaf consisting of two lobes. The lobes operate like jaws, snapping shut when a spider or insect lights upon them. Upon capturing its meal, the plant releases digestive fluids which convert the animal into nutrients. This process requires a significant investment in energy.

So that it does not waste resources attempting to capture and digest a fleck of dust or errant raindrop, the flytrap needs a way to filter out false positives. It accomplishes this using two tests. First, the trap will not shut unless it receives two touch stimuli within twenty seconds of each other. Second, once the trap has closed, it will not release its digestive fluids unless it receives five additional touch stimuli confirming the presence of its flailing victim.[[29]](#footnote-29)

Note that the flytrap is a plant. It has no mind, and it is incapable of forming an intention, measuring time, or counting to five. Nevertheless it performs complex systematic behaviors *as if* it were executing an algorithm—*as if* it were conforming its conduct to a normative rule. Yet we know that it is not *following* a rule.

The behavior of the flytrap has the same propositional status as the rule that if a person unlawfully kills another person with malice aforethought, then he *is* guilty of murder. Both propositions *describe* what happens. Neither expresses an instruction. Neither are the kinds of propositions which could be legal rules. Yet the flytrap example illustrates that systematic behavior does not require legal rules.

The third condition of “legal rules” also warrants more explication. Recall that the third criterion is that some secondary rule, which is accepted by legal officials, identifies the rule as law. This process can be further analyzed. A rule of recognition cannot of course embed all the primary rules. In other words, it cannot be a practicable rule of recognition that is a legal rule if and only if , or , etc., for all the primary rules . Rather, a meaningful rule of recognition must identify some criteria for legality, such as enactment by a legislature or stare decisis.

However, statutes and precedents are not rules. A statute is merely a concatenation of sounds or symbols on paper. Words cannot constitute rules. Rather, they *express* rules. Likewise a precedent is merely the result of a historical case. An individual past case, or even a set of past cases, is not a rule. Rather it is an exemplar illustrating the application of a rule.

It is important to recognize that a rule of recognition cannot designate rules directly. Rather, a rule of recognition must designate *sources* of legal rules. Possible sources include, *inter alia*, precedents, customary practices, treaties, contracts, and statutes. If a secondary rule recognizes a source of law, then whatever rule is expressed by that legal source is a legal rule. When a rule is characterized as “legally binding,” or when the law is said to “require” a particular outcome, it means that the antecedent condition of that normative rule is met, and that the rule is expressed by a source of law. A decision is legally “correct” when it is the consequent of an instantiated legal rule.

Let us next consider what it means for a legal rule to be “determinate.” A determinate rule must satisfy two conditions. First, a legal rule is determinate only if it prescribes a unique outcome to every dispute. Restated more rigorously: let denote the set of all possible legal disputes and let denote the set of all possible legal outcomes. Legal determinism conceives of legal rules as mathematical *functions*, such that every input maps to a unique output. In other words, given any dispute , there exists some outcome , such that the legal rule prescribes one and only one “correct outcome” for every dispute, i.e., .[[30]](#footnote-30)

Second, a legal rule is determinate only if it is knowable to members of the legal community. Specifically, it must be possible to learn, contemplate, and promulgate the rule *unambiguously*. Restated more rigorously: let represent the set of rules recognized by a legal community as binding. is a proper subset of the function space . For a rule to be a determinate legal rule, there must exist some rule of recognition for determining whether the rule is a member of such that .

There are two general methods which proponents of legal determinism purport to play the role of : (1) exemplification and (2) pronouncement. By “exemplification,”I mean the demonstration of a rule-in-action through characteristic examples. For example, the common law (relying on precedent cases) and customary law (relying on customary practices)[[31]](#footnote-31) purport to determine legal rules using exemplification. By “pronouncement,” I mean the linguistic expression of a rule. For example, codes, contracts, and treaties purport to determine legal rules through pronouncements. For convenience, I will assume that “precedents” stand generally for exemplification of any kind, and “statutes” stand generally for pronouncements of any kind.

No third method has ever been seriously proposed.[[32]](#footnote-32) If neither exemplification nor pronouncement are capable of unambiguously determining legal rules, then we can conclude that there exists no methodology such that , and therefore that legal rules are essentially and necessarily indeterminate.

## The indeterminacy of exemplification

In this section, I prove that exemplars cannot determine legal rules. Rather than proceeding directly to the proof, it will be helpful to begin by explaining the intuition which animates the argument. Consider the set of points, , represented graphically in Figure 1.

|  |  |
| --- | --- |
| Figure : What is the value of when ? | Figure : |

Suppose we are asked to determine what value would make the point conform to the pattern established by the points in . We might surmise that the function implied by is . The idea is that exemplifies because every point in is an instance of . In other words, passes through every point in (Figure 2). Therefore, it seems that should be the correct answer.[[33]](#footnote-33)

This feels intuitive. But now consider the function: . Notice that *also* exemplifies . In other words, passes through every point in (Figure 3). But if the rule exemplified by were , then we should answer that . This would be no less consistent with the exemplars in than . There is no mathematical reason to conclude that the pattern exemplified by is rather than . Therefore, is just as correct as .

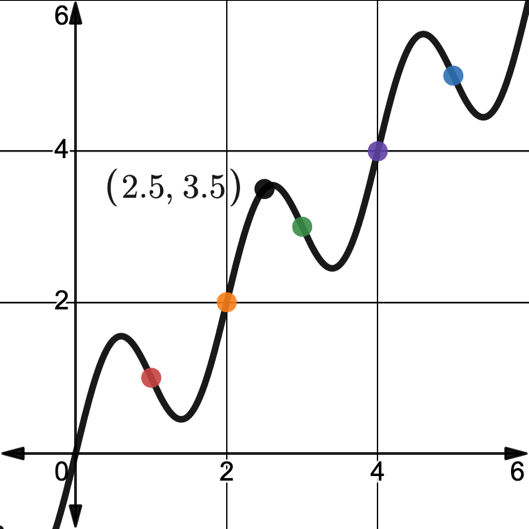


Figure :

Obviously, there exist infinitely many distinct functions which pass through the points in and for any arbitrary . Therefore, the points in not only fail to determine a unique function, they cannot even *constrain* the set of acceptable answers. Choose any arbitrary point , such that , and there will exist infinitely many functions which include .

This simple observation illustrates the intuition behind my first proof. Just as there is no *mathematically correct* value implied by , there can be no *legally correct* judgment implied by precedent cases.

I shall now proceed to the formal proof. Once again, let represent the set of all possible legal disputes, and let represent the set of all possible legal outcomes. Let the function denote a normative rule.

*Definition 1.1. Models:* The ordered set is a “model” of iff , is a bijection, is a surjection, and for all .

*Definition 1.2. Sensible orderings:*  is a “sensible ordering” of iff is a strict total ordering, and for any pair of disputes , competent members of the legal community can distinguish whether or .

A “sensible ordering” orders the set of possible disputes according to some cognizable criterion .[[34]](#footnote-34) This means that for any disputes , if and then is more *alike* to than to according to criterion . The extent to which people perceive cases as “similar”according to given metric is an empirical question. For present purposes, let us charitably assume the rule-deterministic premise that at least one such ordering of disputes exists.[[35]](#footnote-35)

Analogously, a “sensible ordering” orders the set of possible legal outcomes according to some cognizable criterion . The same qualifications and implications apply, *mutatis mutandis*, to sensibly ordered outcomes as to sensibly ordered disputes.

*Definition 1.3. Intelligible rules:* A rule is “intelligible”iff can be sensibly ordered by some binary relation ; can be sensibly ordered by some binary relation ; and there exists a model , such that is continuous, is monotone, and is strictly monotone.

The intuition behind *Definition 1.3* is that an intelligible rule “treats like cases alike.”[[36]](#footnote-36) If is monotone and is strictly monotone, then there must exist some such that .[[37]](#footnote-37) If is continuous, then similar cases map to similar outcomes. Conversely, if similar cases map to similar outcomes, then must be continuous.

*Lemma 1.4:* For any ordered triple , such that , is a bijection, and is a surjection, there exists a unique rule such that for all .

*Proof:* Because , , andare functions, it follows from Definition 1.1 that maps to a unique for every input . Since is defined for all , and are defined for all , and is the codomain of , it follows that is in the function space . Therefore, every ordered triple represents a normative rule.

*Lemma 1.5:* Assume we are given a set of ordered pairs, , such that and for any and any , if then . Next, assume we are given an arbitrary , such that for any There must exist a continuous function , such that and for all .

*Proof:* I will prove this lemma constructively. Consider the function:

Notice that is continuous, includes , and includesevery pair .

*Theorem 1.6:* Let denote an intelligible rule and let denote a set of precedent cases. Let denote a present dispute, where “present dispute” means that for any , (i.e., it is not a past case)For any arbitrary outcome , there must exist an intelligible rule , such that and .

*Proof:* Since is an intelligible rule, it follows from Definition 1.3 that has a model , such that is a surjection. Lemma 1.5 and the surjectivity of implies that there exists a continuous function such that , and such that for all , . Lemma 1.4 establishes that every ordered triple is a model of a rule.[[38]](#footnote-38) Therefore, there exists a rule corresponding to the model .

Next, since is an intelligible rule, it follows from Definition 1.3 that and are sensible orderings; is monotone; and is strictly monotone. Since is continuous, it follows that is an intelligible rule.

Therefore, an intelligible rule exists, such that and for any arbitrary .

## The indeterminacy of pronounced law

In this section, I prove that pronouncements are also incapable of determining legal rules. I begin again with an informal explanation of the intuition behind my proof. Consider the statute, “If a person willfully and unlawfully by fire or explosion, damages or causes to be damaged any dwelling or structure, then he is guilty of arson in the first degree.”[[39]](#footnote-39) This statement *seems* to express a legal rule. However, we are immediately beset with interpretive quandaries. What does it mean to act “willfully”? What does it mean to act “unlawfully”? What is an “explosion”? What is “damage”? What does it mean to “cause”? What constitutes a “dwelling”? What constitutes a “structure”?

The answers to these questions are not obvious.[[40]](#footnote-40) Nevertheless, we pretend that with sufficient effort and ingenuity, it is still possible to locate a meaning. The process of interpreting statutes is supposedly accomplished with the aid of *interpretive rules*. Just as a legal decision requires justification, so too does the interpretation of legal language. But whereas legal decisions are justified by legal rules, interpretations are justified by interpretive rules.

Suppose *arguendo* that interpretive rules can unambiguously determine the meanings of statutory language. We would then need only a shared set of interpretive rules to deterministically extract a rule from a statute. Yet this begs the question how we are supposed to acquire our knowledge of these interpretive rules. If we need legal rules to identify correct legal outcomes, and we need interpretive rules to identify legal rules, then we have still to explain how people discover *which* interpretive rules are the *right* interpretive rules.

A reasonable first guess might be that we extrapolate interpretive rules from past usages. Perhaps we infer the correct interpretive rules by observing how lawyers and judges have interpreted legal pronouncements in the past. Alas, this cannot be the answer. Extrapolation from past practice is exemplification. For the very same reason that exemplification cannot determine legal rules, it will be no help in determining interpretive rules. *See* Theorem 1.6.

Only two possibilities remain: either interpretive rules can be communicated using language, or shared knowledge of interpretive rules is impossible. Suppose that interpretive rules *can* be expressed in words. Note that we implicitly assume this very premise when teaching statutory interpretation, for if interpretive rules were ineffable, then how could we ever hope to tell them to students?

We articulate in words what we think to be the interpretive norms of the profession. For instance, “When a general word or phrase follows a list of specifics, the general word or phrase will be interpreted to include only items of the same class as those listed.”[[41]](#footnote-41) When law students, empowered with a mastery of this interpretive rule, begin their professional careers, we expect that they will confidently recite the maxim in their legal briefs and judicial opinions.[[42]](#footnote-42) However, its meaning is not self-evident. What is a “general word or phrase”? What is a “list of specifics”? Even more problematically, what does it mean for items to be “in the same class”?[[43]](#footnote-43)

Ambiguity abounds. Now if we want to determine what interpretive rule the statement expresses, we will require *another* interpretive rule to decode it. We are thus confronted with a dilemma. On one side we find a paradox. On the other, the abyss of an infinite regress. The paradox is that people require knowledge of the correct interpretive rules to learn the correct interpretive rules. If we do not already know what the correct interpretive rules are, then we will have no way of interpreting statements which attempt to communicate those rules. They are thus unknowable.

The paradox can be avoided if the set of rules required to interpret the expression of a rule does not include the rule itself. In other words, there is no paradox if the expression of an interpretive rule requires a different interpretive rule to understand its meaning. But this merely trades the paradox for an infinite regress, for we will inevitably need *another* interpretive rule to interpret the expression of , and *another* interpretive rule to interpret the expression of . If we need rules to interpret the expression of rules, and rules to interpret the expression of rules interpreting the expression of rules, and rules to interpret the expression of rules interpreting the expression of rules interpreting the expression of rules, etc., then there will be no end to our inquiries.

An illustrative example may be helpful here. Imagine that I decide to learn French, but my only resource is a French dictionary. Suppose I have no prior knowledge of French, and I want to learn the meaning of the word “chien.” The dictionary would tell me that “chien” means: “Mammifère carnivore digitigrade de la famille des Canidés, dont de nombreuses espèces sont domestiquées depuis la plus haute antiquité.”[[44]](#footnote-44)

Since I do not *already* know French, the French definition is as meaningless to me as the word I sought to learn. I might reason that the definition could be useful if only I knew what thewords in the definition meant. So now suppose I then consult my dictionary to learn what the term, “mammifère” means. I would find that “mammifère” means: “[C]lasse de vertébrés tétrapode à température interne constante, respirant par des poumons et caractérisés notamment par la présence de poils et de mamelles,”[[45]](#footnote-45) which is equally inscrutable. No progress whatsoever is being made.

The problem is that language cannot explain language unless one *already* possesses a critical mass of linguistic competence. This observation supplies the insight undergirding the proof which follows.[[46]](#footnote-46) To begin, let denote the set of all the sentences in a language, and let denote the subset of normative rules which *could* be legal rules if they were identified as law by a rule of recognition. For convenience, let us call these rules, “candidate legal rules.”

*Definition 2.1. Hierarchy of meta-interpretations:* First, let be the set of all functions which map sentences to candidate legal rules. This will serve as the base case for a recursive definition.

Next, let be the set of all functions mapping *sentences* to the *functions in* .

Definition 2.1 describes a hierarchy of interpretive rules. The base layer, , is the set of rules for interpreting legal statements. For convenience, let us call these “first-order interpretive rules.” The next layer up, , is the set of rules for interpreting statements of first-order interpretive rules. Let us call these “second-order interpretive rules.” The hierarchy is analogously defined for “third-order interpretive rules,” “fourth-order interpretive rules,” and so forth indefinitely.

*Definition 2.2. Decomposition function.* Given an interpretive rule and an ordered set of sentences , the function outputs the result of iteratively descending the hierarchy of interpretive rules according to the pattern: ; followed by , followed by , etc., until we get to a candidate legal rule .[[47]](#footnote-47) If any is undefined for input , then we will say that is undefined. Formally:

In other words, suppose we are given an ordered set of sentences, , such that expresses the rule for interpreting , and expresses the rule for interpreting , …, and expresses a candidate legal rule. The decomposition function outputs the candidate legal rule determined by that sequence of sentences when is interpreted by . Of course, if is a legally valid statute, and are canons of construction, then the “candidate” would in fact *be* a legal rule.

*Theorem 2.3.* For any candidate legal rule and any ordered set of sentences , there exists an interpretation , such that .

*Proof:* It follows from Definition 2.1 that there exists an interpretation, call it , such that . Next, it follows from the Definition 2.1 that there exists an interpretation, call it , such that for all Therefore, by induction, there must exists an interpretation , such that .

Theorem 2.3 states that for any sequence of sentences , such that is supposed to express a legal rule, and every sentence expresses a rule for interpreting , there must exist an interpretation of which makes the “correct” interpretation of any arbitrary meaning we would like it to be.

Restated in the language of statutory interpretation: Theorem 2.3 proves that it is always possible interpret the canons of construction so that a statute can have any arbitrary meaning we choose. Therefore, it is not feasible to fix the meaning of a statute to a determinate rule.

## What the theorems are *not* saying

When I present this argument to colleagues, the most common reaction I receive is neither agreement nor disagreement, but instead persistent misunderstanding. Therefore, I feel it incumbent at this point to clarify explicitly what I am *not* saying.

My argument is *not* claiming that legal officials can make decisions contrary to the requirements of law. Obviously anyone can disobey a normative rule—including a judge. That is not an interesting claim.[[48]](#footnote-48) The question I am addressing is whether there can ever exist a determinate legal rule to bind judges in the first place.

Neither is my argument claiming that legal officials *should be permitted* to make decisions contrary to the requirements of legal rules.[[49]](#footnote-49) My argument shows that it is not possible to identify which rules are legal rules. It makes no sense to talk about the “requirements” of legal rules when it is impossible to determine what those legal rules are.

Neither is my argument claiming that normative rules fail to prescribe correct choices uniquely. It is easy enough to postulate a normative rule which assigns one correct choice for every possible decision.[[50]](#footnote-50) What the theorems show is that it is impossible to determine *which* of those normative rules are legal rules.

My argument *does* contend that legal sources fail to prescribe correct choices, but my conclusion is stronger than that. My conclusion is that legal sources cannot even constrain the set of legally acceptable outcomes, for inasmuch as legal sources are incapable of determining *correct* outcomes, so too are they incapable of determining *incorrect* outcomes. Since there are no incorrect outcomes, it is otiose to speak about the “range of outcomes” consistent with legal sources. Because it is indeterminate which rules are communicated by legal sources, such a range must trivially include every possible outcome. Anyway, if my contention were merely that legal sources failed to identify the one and only correct answer to every legal question, then all the foregoing intricacies would surely be overkill. I expect very few people conceive of legal sources as prescribing one and only one right answer to every question.[[51]](#footnote-51) The interesting problem is whether legal sources have any determinate content at all.

My argument *does* make an epistemic claim, but my conclusion is not *only* a claim about what is knowable. The existence of a legal rule depends upon its recognition by the legal officials. Contrast this with the indeterminacy of causal rules, which is a purely epistemic claim about the knowability of nature. Though we cannot determinately infer the causal rules of nature, we may still be justified in believing that there are causal rules operating beyond the reach of our perceptions. For example, although we can only observe the effects of gravity, which are ambiguous as between infinitely many possible rules, we would not conclude on this basis that there does not *exist* a physical rule. Causal rules do not depend upon our knowledge of them to operate on the world. However, this is not necessarily true of legal rules. If legal rules are unknowable, then it would be rather peculiar to insist that they nevertheless exist. In virtue of what would a rule be law if its status were unknowable? The “existence” of legal rules is entirely dependent upon their recognition. Thus, the indeterminacy of legal rules—unlike causal rules—implies *at a minimum* that they cannot precipitate legal outcomes. Indeed, it is difficult to fathom how unknowable rules could be thought to justify choices or impose obligations either. If unknowable legal rules exist, then it is utterly mysterious how they got to be legal rules (absent radically redefining what it means to be a “legal rule”). Thus my conclusion is metaphysical inasmuch as it is epistemic.

Finally, my argument is *not* a claim about private language or inductive inference generally. It does resemble certain rule-skeptical arguments prominent in other realms of philosophy,[[52]](#footnote-52) and it may incidentally have some bearing on those controversies.[[53]](#footnote-53) However, my argument is principally a claim about the law.

## Criticisms anticipated

There are several foreseeable objections which I shall now rebut. The first—and likely the most prevalent—objection I expect to encounter is what I shall call the “smug simpleton” argument. This species of argumentation is often prefaced by the disingenuously self-deprecatory caveat, “This might be a stupid question, but…,” which is presumably calculated to excuse its unresponsiveness to the argument it seeks to refute. The smug simpleton argument is generally formulated thusly: “I am sure that you are wrong because I know from my personal experience that the opposite is true.”

Common examples of smug simpleton claims are, *inter alia*, that the earth is flat, that ghosts exist, or that space aliens have visited our planet. The smug simpleton cannot address the proposition he wishes to refute, and so he simply *asserts* that the earth *seems* flat to him, or that he has *seen* an apparition, or that he was himself abducted by an alien.

Smug simpleton arguments are pervasive in all areas of intellectual inquiry. For example, I expect every physicist will have encountered a proud pleb purporting to “disprove” quantum mechanics by some wildly uninformed observation. Likewise, biologists will have been confronted with countless self-satisfied laymen who insist that they have never observed evidence of evolutionary change and that evolution must therefore be “false.” Assuredly every economist will have had the unpleasant experience of being rudely informed that all his theorems and deductions are unsound because they rely upon the assumption that actors are rational—and the smug simpleton has met many “irrational” individuals in his life.

It is a lamentable peculiarity of the law—unlike physics, biology, or economics—that smug simpleton arguments often originate from *within* the legal academy. Therefore, it seems they ought not be ignored—however meritless they may be. In the context of indeterminacy, I anticipate that the smug simpleton will point to some statute he regards to be crystal clear, and he will declare he finds the meaning of the statute to be self-evident and therefore determinate.

Such observations miss the point of my argument entirely. The theorems prove that legal sources areindeterminate. They say nothing whatsoever about whether an individual happens to attach some arbitrary meaning to them. Nor, indeed, do they say anything about how strongly a person may feel that the statute has signified the rule they interpret it to mean. This putative “refutation” of indeterminacy is analogous to claiming that the surface of a table cannot be composed of molecules because it *seems* continuous. How a table *seems* to observers is a claim about their perceptions. It is not a claim about the table. I accept that a statute *seems* meaningful to the smug simpleton, and I also maintain that the statute is necessarily indeterminate. There is no contradiction.

The smug simpleton may yet retort that anyone we ask would agree with him about the meaning of the statute. Once again, this is not responsive to my argument. Just because a stimulus elicits a universal response does not mean that the response is intrinsic to the stimulus. For example, suppose the light reflecting off an apple has a frequency of 430 terahertz. When this light interacts with an L-cone cell in a human eye, it induces the subject to experience the quale of redness. The *apple* is not red, though we may refer to it as being red as a convenient shorthand. A differently constructed eye or a differently constituted brain may perceive a different quale. No perception is any more “correct” than any other. Likewise, a statute may *seem* to express some rule determinately. That is an observation about how an individual responds to language. It does not entail that the meaning of the statute is determinate.

I agree that the apparent consensus about a statute’s meaning or a precedent’s holding wants of explanation. I attempt to supply such an explanation in the second part of this Article. However, it is a category mistake to conflate agreement with correctness. The fact that everyone agrees about the meaning of a statute—if this ever is a fact—does not entail that their interpretation is “correct.”

The next objection I anticipate is what I shall call the “pragmatic simpleton argument.” The pragmatic simpleton reflexively objects to any theoretical result for which he can find no obvious practical application. I expect everyone has encountered this phenomenon. It is the refractory middle school student who rebels against learning trigonometry; the crass political hack who cares nothing for statistics; the provincial brute who simply “does the right thing” without any need for moral philosophy.

The pragmatic simpleton is endemic to the legal academy. In the context of indeterminacy, I suppose the pragmatic simpleton would marvel that anyone should care about such an abstract issue so far removed from the practice of law. He will complain that when representing a client accused of theft, it would verge on malpractice for an attorney to argue that no rule was violated because the statute defining petty larceny is indeterminate. The pragmatic simpleton does not claim that my argument is wrong. Rather, he contends that my results are no more interesting than a theorem proving how many angels can dance on the head of a pin.

There are three compelling reasons to reject pragmatic simpleton arguments. The first is aesthetic. Pragmatic simpleton arguments assume an intrinsically vulgar perspective. The standpoint frames theoretical progress not as a search for knowledge, but as a search for tools. To the pragmatic simpleton, science is a mere ancillary to engineering, history is but a source of instructive exemplars, art is decoration, and philosophy has no value whatever. It is repugnant that such a crass outlook should ever find refuge among scholars.

There is no question more essential to the law than whether legal rules are determinate. It is the foundation upon which every other legal concept is built. For a legal scholar to shrug at its relevance betrays an astonishing dearth of intellectual curiosity. Should scientists discard fundamental physics for want of “practical uses”? If not, then why should fundamental problems in legal theory be any different? One can hardly imagine a more odious attitude in a scholar of law.

The second reason to reject pragmatic simpleton arguments is that their premises are almost always false. Apparently “useless” theoretical excursions often turn out to have important practical applications. Number theory has become fundamental to cryptography; genetics provides the basis for medical research; and relativistic mechanics are required to calibrate global positioning systems. If the applications of a theory are not obvious, then it is not a defect of the theory so much as a deficiency of the imagination.

The indeterminacy of law has several practical implications. It locates the source of legal outcomes not in legal rules but in legal decision-makers. This insight informs practicing lawyers where their efforts ought to be directed. If a judge is disposed to understand a legal source as requiring a particular result, then it is futile to insist that the judge’s conception is inconsistent with precedent or that he has misinterpreted the language of a statute. Indeterminacy guarantees that the judge can extract whatever rule he wants from a legal source without fear of logical contradiction. The advocate’s efforts would therefore be better spent attempting to persuade the judge of the urgency of his client’s interests and the appropriateness of his proposed solution.

The theorems also reveal textualism and stare decisis to be mere pretense. For judges, it dispels the myth that legal sources bind decisions. The judge is made aware of the infinitude of candidate rules which legal sources entail. If a particular interpretation seems inescapable to a judge, then it is not because it is determinate, but rather because his outlook was myopic. He should simply redouble his efforts to discover alternative interpretations, the existence of which are ensured by the theorems. Since every outcome is “correct” according to some rule, judges are liberated to exercise their creativity and practical reason to choose outcomes which are sensible.

For lawyers and political theorists, legal indeterminacy exposes the artifice of legal requirement. It justifies skepticism about the judicial rationalization. Since legal language and precedent lack the determinacy to bind future cases, any rationalization built upon textualism or stare decisis is necessarily a subterfuge. Legal sources cannot determine outcomes, and therefore they cannot justify outcomes. Any explanation relying upon the binding force of legal rules disguises the real reasons for deciding a case. This is surely a “useful” revelation.

Yet another practical application of legal indeterminacy is uncovering fruitful avenues for scholarly inquiry. Since legal rules cannot provide reasons for judicial choices, scholars are left to focus their inquiries instead upon other reasons (i.e., the *real* reasons) motivating judicial decision-making. We need not wait to discover whether the exploration of alternative bases of legal decision-making will bear fruit. It has been happening already for nearly a century. Recall historically that it was the realist rebuttal of formalism which precipitated the emergence of interdisciplinary legal studies like law and economics, empirical legal studies, critical legal studies, feminist legal theory, and critical race theory. To the extent that there is further progress to be made, it seems that the complete eradication of pure doctrinal scholarship from the academy would represent a beneficial evolution in the legal academy. It is not enough that legal scholarship merely include interdisciplinary studies—meaningful research *requires* a theoretical basis outside the law.

If this seems reasonable, then it is worth scrutinizing what the pragmatic simpleton might have thought legal scholarship ought to be. It seems to me that the pragmatic simpleton envisions “useful” legal research as summarizing caselaw and distilling the holdings of cases into quotable “principles” which one might find in a treatise or restatement. It is unclear how this “research” is in any way distinct from the work that practicing lawyers do, nor how this work could be of any use to a practicing lawyer. The generalizations captured in restatement-like aphorisms are at best weak authority, and the practicing lawyer is likely to get along perfectly well without them.

According to legal indeterminacy, legal sources are like Rorschach blots upon which meaning is imposed. Whatever rules a legal scholar observes in legal sources—however painstakingly argued—is tantamount to arguing that a smudge of ink resembles a flower more than it resembles a cloud or a butterfly. It is arbitrary. And if a judge sees it differently, it matters not a whit what reasons the fussy law professor gives for discerning one pattern rather than another. It is doubtful whether any practicing lawyer has ever benefited from the words of a treatise. Not only are the putatively “useful” researches of the pragmatic simpleton *useless* in fact, it seems to me that they are affirmatively deleterious. They are noise.

First, the critic may complain that these results follow trivially from my definitions. Yet it must be the case for any deductive argument: any conclusion which was not latent in the premises cannot have been the product of a valid inference. When the premises are definitional, it follows that the conclusion must be true in virtue of the definitions postulated. The real question is whether the definitions adequately capture enough of the concept we were interested in analyzing for the result to be meaningful.[[54]](#footnote-54)

Recall that I defined a “legal rule” as a normative rule which is recognized as law by some secondary rule accepted by legal officials. Who would object to this definition? This is a definition which all legal positivists would surely accept.[[55]](#footnote-55) The natural lawyer would reject the proposition as a *definition* because he would say it fails to express a sufficient condition. But the natural lawyer must surely accept that it is at least a necessary condition. And that is enough for my argument.

Surely no one would reject the claim that legal rules are rules. And it seems that any definition which included descriptive rules would be far less consistent with common usage than my definition. It would be stranger still if a definition included normative rules which were *not* recognized as law by some secondary rule accepted by legal officials. Therefore, it seems that my definition is at least consistent with what a large majority of people would pretheoretically recognize as a necessary condition for being a legal rule.

Next, recall that I defined “indeterminacy” as

Second, that my results follow trivially from my assumptions. Third, that my

# The predictability of legal outcomes

Theorems 1.6 and 2.3 together establish that the law is necessarily indeterminate. It is impossible to identify which rules are legal rules, and it is thus indeterminable what outcomes are required by legal rules. Therefore, no judgment is any more or less “correct” than any other.

This conclusion is quite radical. Indeed, it is more extreme than many readers might at first suppose. Textbook examples of legal indeterminacy typically involve “edge cases,” where no obvious precedents exist, or where legal rules seem to conflict. H.L.A. Hart’s well-worn example is the city ordinance which forbids vehicles in the park.[[56]](#footnote-56) The point of the example is that the statute is indeterminate for certain cases in the “penumbra” of its meaning. Specifically, Hart considers the rule indeterminate as whether bicycles, roller skates, or airplanes should count as “vehicles.”

The historical emphasis on edge cases frames the scope of the issue; it treats indeterminacy as a question about extremum cases rather than rules intrinsically. However, the two theorems are not about subtle controversies on the frontier of meaning. Rather, the theorems establish a stronger claim. They demonstrate that legal rules are indeterminate *even* for cases in the “hard core of standard instances.”[[57]](#footnote-57) According to the two theorems, the park ordinance could mean that *automobiles* are permitted. Indeed, it could mean that every left-handed man named “Pat” should wear purple pants on Tuesdays. The statute could mean anything. “Indeterminate” really does mean *indeterminate*.

## The paradox of prediction

But now we have a *new* problem. The theorems tell us that there are no legally correct outcomes, but if we ask real people to apply a statute or common law precedents to a case, they would surely tend to agree about what outcomes the statute requires.[[58]](#footnote-58) More seriously, I expect that honest introspection will reveal that every person *feels* quite palpably that statutes and precedents docommunicate determinate rules. If there are no legally correct outcomes, why then does it seem like there are?

To demonstrate this point, I conducted an experiment in which I asked 261 test subjects six questions for which no determinate rules could be used to privilege one answer over any other.[[59]](#footnote-59) The test subjects were not allowed to communicate with each other. My hypothesis was that the responses would nevertheless coalesce around consensus answers.

When I presented test subjects with Hart’s hypothetical, large majorities emerged in each of the four scenarios (i.e., automobile, bicycle, airplane, and roller skates). The consensus opinion was that the automobile and the bicycle *did* violate the statute, whereas the airplane and the roller skates did *not* violate the statute.[[60]](#footnote-60) *See* Table 1. The “penumbral” cases were apparently not as penumbral as Hart had supposed.[[61]](#footnote-61)

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
|  | Automobile | Bicycle | Airplane | Roller Skates |
| Violation | 85.1 | 77.4 | 20.7 | 27.6 |
| No violation | 14.9 | 22.6 | 79.3 | 72.4 |

Table : What does "No vehicles in the park" include?

Next, I asked the same test subjects what value would be most consistent with the pattern established by the set when .[[62]](#footnote-62) Test subjects were provided with the graph in Figure 1. Unsurprisingly, an overwhelming majority (92.7%) answered .

Finally, I asked the same test subjects what value would best complete the number sequence: .[[63]](#footnote-63) I selected this sequence because it is ambiguous as between two salient alternatives: the odd numbers (i.e., 1, 3, 5, 7, 9, …) and the prime numbers (i.e., 2, 3, 5, 7, 11, …). My suspicion was that a majority would answer “1,” despite the presence of an obvious alternative.[[64]](#footnote-64) Again, there emerged a sizable majority (97.7%) who answered .[[65]](#footnote-65)

These results represent a serious problem. The test subjects’ choices were entirely discretionary. Nevertheless, there was general agreement about what the correct answers should be. If the questions do not have correct answers, then it is puzzling how such agreement could be possible.

The problem is acutely manifest in the law. It seems that competent lawyers are able to guess the outcomes of cases with better-than-random probability. If legal rules cannot determine legal outcomes, then how can it be that informed observers are able to predict a court’s decisions? More puzzlingly still, why is it that more skillful lawyers are better predictors than their less skilled colleagues?

The accuracy of the competent lawyer’s predictions seems to imply that he possesses a knowledge of the legal rules which motivate a court’s decisions. That of course implies the existence of legal rules. The more skillful lawyer is better at prediction because he has a better grasp of the legal rules or a keener aptitude in applying them. It seems therefore that his predictions are correct *because* the outcomes he predicts are legally correct. And yet the theorems say there are no such things as legally correct outcomes, and the theorems cannot be wrong (they are *theorems* after all).

The paradox is profound. In stark terms: it is a conflict between an empirically valid observation and a theoretically valid model. Surely there must be an error in the reasoning somewhere.

I have framed the paradox in sharp relief, however legal philosophers have been vaguely aware of the issue for at least a century. When confronted with the apparent predictability of legal outcomes, some scholars have chosen simply to ignore the anomaly. Others have taken the predictability of law as a sign that legal determinism must somehow be salvageable after all. And still others endeavored to “split the baby,” hypothesizing that the law could be indeterminate in some parts and determinate in others.[[66]](#footnote-66)

These clumsy historical attempts to resist the paradox uniformly miss the point. It is not the premises which are the source of the contradiction. It is *necessarily* the case that legal rules are indeterminate—everywhere and always. It is also indisputable that legal outcomes are predictable and that the predictions of competent lawyers correspond to what they believe are legal rules. Neither premise can be rejected or relaxed.

To diffuse the paradox, we must locate some error in the logic of its formulation. The vulnerable point is the assumption that predictability depends on legal rules. The inference is that lawyers and judges possess a shared knowledge of legal rules, and that they use those rules to identify legally “correct” outcomes. Judges ordinarily *want* to make “correct” decisions, and lawyers are aware of this fact. So when a lawyer predicts what the judge will do, the lawyer is simply stating what he himself considers to be the legally “correct” judgment. If judges and lawyers both recognize what is “correct,” then that would explain how lawyers are able to predict legal outcomes.

The story is intuitively appealing. However, notice that this mechanism would still generate predictability if “correctness” were replaced by any other criterion. It is not a shared knowledge of legal correctness in particular which enables lawyers to predict what judges will do. Rather, *any* cognitive process common to lawyers and judges would enable lawyers to predict judicial behavior.

To illustrate: imagine a legal system consisting of all (and only) the same statutes and precedents as our own law. Suppose that in this hypothetical legal system all judges decide cases according to the alphabetic priority of the litigants’ names (in a dispute between “Anderson” and “Zimmerman,” Anderson would prevail because ‘A’ is alphabetically prior to ‘Z’). They do not believe this is required by legal rules. They simply do it. Clearly, any observer capable of alphabetizing will be capable of predicting the outcomes of cases in that legal system. Hence, it is at least *conceivable* for legal outcomes to be predictable independently of legal rules.

Some readers may now wonder whether alphabetic priority might not *be a legal rule* in this hypothetical legal system. If we supposed that alphabetic priority were a legal rule in that system, then we would be modifying the premises of the hypothetical. That would simply be a *different* hypothetical.

Would the predictable practice of ruling in favor of the party whose name is alphabetically prior *make* that tendency a legal rule of that legal system? Surely not. If the mere existence of a predictable pattern were sufficient to make the pattern a “legal rule,” then we would be forced to conclude that it is a legal rule in our real worldlegal system that criminal trials should result in a guilty verdict. But even though most criminal trials do result in guilty verdicts, that would not justify a guilty verdict in any particular case, and no one would think it a legal rule.

The point of the illustration is that it is in principle possible for courts to behave predictably even in the absence of legal rules. The problematic assumption that predictability requires legal rules may originate in the equivocal use of the word “correct.” A correct prediction does not require the existence of a correct legal outcome. A correct prediction is “correct” in a descriptive sense; it is a true proposition about what the court will do. A *legally* correct decision is “correct” in a normative sense; it is a duty fulfilled. Since legal correctness is not required for predictive correctness, there is no paradox.[[67]](#footnote-67)

## Law in the real world

What then does account for the predictability of legal outcomes in our legal system? Judges in the real world do not use alphabetic priority to decide cases—although some observed patterns in judicial decision-making seem hardly less arbitrary.[[68]](#footnote-68) Judges seem to want earnestly to conform their decisions to legal rules (however futile it may be in fact). Some account of *what* common cognitive processes make real world law predictable is therefore wanted.

I doubt there is *one* explanation for the predictability of law. Many evolutionary, economic, political, and sociological forces converge at the point of a legal decision, all of which influence how a court will generalize a precedent or interpret a rule. These forces are likely to settle into stable equilibria for certain classes of disputes, although the balance of those forces may differ from category to category.

Evolutionary pressure is one of the forces most plausibly effecting common cognitive processes. The innate tendency to perceive certain patterns rather than others undoubtedly has a basis in biology common to all human beings.[[69]](#footnote-69) For example, if a primitive hominid encounters a black bear, a brown bear, and a white bear, and he finds that they are all dangerous, then it would be advantageous for his survival if he inferred the rule that if is large and furry and has sharp teeth, then is a threat. But if the primitive hominid encounters a white rabbit, a white mouse, and a white dove, then it would be disadvantageous for his survival if he inferred the rule that if is white, then is harmless (that is liable to get him eaten by the white bear).

Clearly some inferential tendencies will confer an evolutionary advantage, whereas others will not. These tendencies may manifest unexpectedly in artificial settings. It may be that human beings tend to induce that is the rule exemplified by the set because straight lines are more efficient routes when choosing how to travel between locations. Or perhaps the inclination relates to the geometry of spearing prey.

It is easy to grasp how a common understanding of linguistic rules in particular might confer an evolutionary advantage. Humans are a social species. Communication therefore plays an important role in human interaction and survival. Although there is no “correct” interpretation of the statement, “If you find a blue mushroom, then you should not eat it,” it would obviously be advantageous if language users tended to interpret the phrase as expressing approximately the same rule. The stronger a community’s agreement in linguistic pattern recognition becomes, the more evolutionarily advantageous its language use will be. Ergo, it is reasonable to expect that people would tend to infer similar meanings from linguistic expressions.[[70]](#footnote-70)

Economic rationality and the homogeneity of preferences are also forces which plausibly effect common cognitive processes. If we assume that individuals are rational and their utility functions tend to be similar, then their reasons for actions will also tend to be similar. Consequently, their inferences about the intentions and motivations of observed behaviors will tend to converge. For example, suppose we observe Smith walking to work every morning for a month. Imagine, coincidentally, that it rains on every Tuesday morning (and only on Tuesday mornings) during that month, and that Smith carries an umbrella on those days.

What reason for Smith’s behavior might we infer? We could infer that he brings the umbrella because it is raining. But we could also infer that he brings the umbrella because it is a Tuesday. Of course, most people will likely accept the former rule and reject the latter rule. We reason by imagining what we ourselves would do in Smith’s position. We reflect upon our own preference to avoid being soaked. We assume that Smith shares that preference. Since we would use an umbrella in order to stay dry when it rains, we infer that this is the reasonwhy Smith brings an umbrella when it rains.

The point here is *not* that our observations justify our conclusion. We could be wrong. Smith could be carrying the umbrella because he is participating in a local theater production of *Singin’ in the Rain* which rehearses on Tuesday evenings. Our inference about Smith’s intentions is nothing better than a guess. The point is that we observers will tend to agree *with each other* because we share a common cognitive process. It is indeterminate whether Smith carries an umbrella because it is raining or because it is a Tuesday. However, there will be general agreement among observers of Smith that he carries the umbrella because it is raining.

Agreement about the *purpose* motivating the communication of a normative rule can generate consensus about what that communication means. If the reason why a city council prohibited vehicles in a park was to limit the emission of noxious exhaust fumes, then it is clear that the expression should be interpreted to exclude bicycles and roller skates, and airplanes flying 30,000 feet above. On the other hand, if the reason why the statute was enacted was because the park is difficult to access by emergency workers in case of an injury, then the statute should be interpreted to include bicycles and roller skates, but not airplanes.[[71]](#footnote-71)

To the extent that human observers tend to be homogeneous in their ascription of intentions, they will tend to agree about the purposes that motivated the outcome of a precedent case or the enactment of a statute. If observers can agree about the purpose of a precedent or statute, then they will tend to agree about which rule they think is law.

Political pressure is a third force which could plausibly effect common cognitive processes. When legal officials make judgments, they are by definition exercising political power to advance an interest. In particular, they advance the interests of the prevailing litigant. Viewed in the aggregate, the set of prevailing litigants might share common social, political, or economic interests sufficient to constitute a coherent class. General agreement about patterns in caselaw or meanings in legal texts could thus reflect the agenda of a dominant interest group.[[72]](#footnote-72)

Finally, legal education is yet a fourth force which could plausibly effect common cognitive processes. When law students are indoctrinated in the peculiar logic of legal reasoning, they acquire a propensity to find patterns in caselaw and meanings in legal texts which coincide with the intuitions of others in the legal profession. This conditioning may influence lawyers to surmise rules from indeterminate sources in a predictable manner.

There are surely many other forces at work in the formation of a consensus; the four which I have considered above are merely those that seem especially potent to me.[[73]](#footnote-73) It is important to distinguish that these forces explain how a consensus emerge, and consensus explains how lawyers predict legal outcomes. Yet mere agreement about what a precedent or statute requires does not make that outcome legally correct. In order to be a correct decision, it must be determined by a legal rule. And precedents and statutes are necessarily ambiguous as between infinitely many candidate legal rules.

Although a preponderance of the population may agree about which rules are exemplified by precedents or expressed in statutes, that consensus is mere happenstance. It is a function of biology, economic rationality, politics, and conditioning that people gravitate toward some pattern or interpretation rather than another. If called upon to *justify* why they believe their perceived rule is what a precedent must exemplify or what a statute must express—to the exclusion of all other candidate rules—they will have no better answer than that they feel it must be so.[[74]](#footnote-74)

This cannot be part of the rule of recognition for a legal system. An individual’s naked intuition is not publicly accessible.[[75]](#footnote-75) Therefore it cannot be a satisfactory test of what it means to be a legal rule.[[76]](#footnote-76) An individual’s private intuitions are incapable of settling any controversy about what is or is not a legal rule.

Neither can popular agreement be a rule of recognition. Even if all the members of a legal community unanimously agreed that a statute expressed a particular legal rule, how could they verify that the rule of recognition was satisfied? They have no better mode of communicating their intuitions than exemplification and pronouncement. But it was the ambiguity of those mechanisms that motivated the appeal to popular agreement in the first place.

Therefore, the predictability of legal outcomes must be descriptive. The patterns we observe in judicial decisions cannot be caused by legal rules. This does not mean that precedents and statutes have no influenceon legal outcomes. Rather, it means only that their influence is not mediated through legal rules. If a legal official *believed* that a precedent or statute unambiguously communicated a legal rule, and he conformed his judgment to the requirements of that rule, then his (false) belief that his decision is legally determined could *affect* the legal outcome.

Precedents and statutes ought therefore to be regarded as akin to poetry. They can inspire legal officials to a decision, though it is indeterminate what choices they might effect. A legislature is not so much a master as a muse. How legal officials respond to a precedent or statute depends as much upon their personality, experience, and tastes as it does the facts of a precedent or the words of a statute.[[77]](#footnote-77)

If the law is predictable, then it is because human tastes tend to be homogeneous. Yet conformity should not be mistaken for correctness. It is foreseeable that most readers will delight when they hear Laura Richards’ whimsical nonsense poem “Eletelephony.”[[78]](#footnote-78) Yet if some readers found itlugubrious, we would not say they were “wrong.” To call it “wrong” would be a category mistake.[[79]](#footnote-79) Likewise, it is reasonable to suppose, for example, that a statute prohibiting the immigration of foreign workers ought to apply to a Briton seeking to work in New York. Yet if a court decides it does not, then its interpretation is not “wrong.”[[80]](#footnote-80) To call it “wrong” would simply be a category mistake. A reaction may be “idiosyncratic,” “abnormal,” or even “deviant,” but it cannot be “incorrect,” for it is as true in law as it is in art that *de gustibus non est disputandum*.

The law consists not of rules but of decisions. If there are patterns discernable in those decisions, or if they seem to emanate from an inspiration shared in common, then the most we can say about it is that there seem to exist some observable regularities. These regularities can no more cause nor justify a legal outcome than the “laws” of physics can cause or justify the movement of a body. Drop a pencil and it accelerates toward the earth at a rate of . The pencil does not plunge to the ground because it accepts that it *should* obey the rule*.* Neither does the rule *justify* the pencil having done so.

I contend that exemplification and pronouncement cannot determine normative rules. Since legal sources operate exclusively through exemplification and pronouncement, it follows that legal sources cannot determine normative rules. Since legal rules are a subset of normative rules, legal sources cannot determine legal rules.

Note that this does not foreclose the possibility that individuals could *intend* utterances to mean determinate propositions.

For example, Wittgenstein’s skeptical argument concludes that the indeterminacy of rules precludes the possibility of *private* meaning. He contends that all meaning must be *public* meaning. My argument contends that the indeterminacy of rules precludes the possibility of *public* meaning. The apparent contradiction is superficial because Wittgenstein intends “public meaning” in a way that is not relevant to the

It will at this point have occurred to some readers that we might *usefully* redefine “legal rules” as being the consensus response that legal officials have to a legal source.[[81]](#footnote-81) The proposition is that we regard that combination of legal sources *and consensus* as the determinant of legal rules.

Of course we can *redefine* “legal rules” to mean whatever we want it to mean. And if “legal rules” is vacuous according to the conventional meaning, then it is a term which might usefully be put to a new use. Let us refer to the new meaning as the “pragmatic definition.”

I contend that the pragmatic definition does not represent an improvement over the conventional definition. There are two main problems. First, even if the consensus of legal officials were that a legal source required a particular outcome in a particular case, it seems implausible that the consensus would persist for *all* possible applications of the legal source, and therefore, there would never be agreement about the legal rule—only ad hoc agreement about the correct adjudication of some particular cases.

However, let us grant *arguendo* that there are instances where there exists some consensus among legal officials about the rule is implied by a legal source. The second (and deeper) problem is that the redefinition will have done no work. If such agreement did exist, then the pragmatic definition would merely entail the trivial proposition that a legal rule is determinate when legal officials agree about its content, and indeterminate when legal officials disagree about its content.

The *practical* purpose of a legal rule is to identify a reason for choosing one outcome rather than another in a disputed case. By redefining “legal rules” in terms of consensus, the pragmatic redefinition supplies a reason for choosing an outcome only in circumstances when judges would have already chosen that outcome anyway. If legal rules serve any useful function, then it should be in controversial cases. However, according to the pragmatic definition, the existence of a controversial case implies the absence of a legal rule. In other words, the pragmatic definition recognizes the existence of legal rules only in the cases where they are unneeded. Therefore, it turns out not to be a very useful definition after all.

For example, consider the statute, “Murder is the unlawful killing of a person by another person with malice aforethought.” Under the pragmatic definition, the statute expresses a legal rule if there is consensus about which rule the words of the statute express. Suppose that judges in a jurisdiction agree about what the statute requires in all possible cases. The pragmatic definition identifies that agreement as the legal rule. In particular, suppose that all judges in the jurisdiction agree that the murder statute expresses a rule which excludes the killing of fetuses (i.e., that fetuses are not “persons” in the meaning of the statute). The rule would thus supply a reason why a judge ought not condemn a defendant for murder for killing a fetus.[[82]](#footnote-82)

But if there is already consensus that fetuses are excluded from the meaning of the statute, then what work is done by identifying the interpretation that all judges share as being *the legal rule*? There was never any dispute in the first place about the meaning of the legal source, and so it is utterly otiose to declare the consensus to be the “correct” interpretation.

Suppose instead that there were controversy about whether the murder statute applied to fetuses. Some judges understand the statute to express a legal rule that includes fetuses, whereas others understand the statute to express a legal rule that excludes fetuses. It is in circumstances like this that judges will want some method of identifying which rule is law. The pragmatic definition is of no help whatever here, because under a consensus-based definition, the very existence of a controversy entails that the statute does not express a determinate rule.

In other words, if we include consensus as one of the determinants of legal rules, then legal rules constrain the decisions of judges *only* when they would have made the “correct” choice anyway. If they would not have made the “correct” choice, then there was never a rule in the first place.

The persistent rescuer may now try to weaken the pragmatic definition even further, positing that legal rules do not require a *consensus* interpretation, but merely a *majority* (or even *plurality*) interpretation of legal sources. Redefined thusly, it is possible for “legal rules” to exist despite disagreements among legal officials about the interpretation of legal sources. The benefit of this approach is that if ninety percent of judges adopt interpretation A, and ten percent of judges adopt interpretation B, then we are no longer bound to say that the legal source is indeterminate. Instead, we can simply declare the ten percent of judges who adopt interpretation B to be *wrong* and that they ought to have decided the differently.

This majoritarian conception avoids the problems of the pragmatic conception, however it creates new (and rather more troublesome) difficulties. First, there are several practical obstacles which may be insuperable. For example, how are we to know if a majority exists? If we attempt to poll all judges about what they believe a legal source requires for every controversy, then the “legal system” would consist of only *one* adjudicative forum, such that the judgment of every legal official would be required to determine the correct solutions in every controversy. This is clearly impractical at best—*impracticable* at worst.

The majoritarian conception is also unstable, for it allows legal rules to change with the vicissitudes of fashion. Moreover, it excludes the possibility that a minority interpretation could ever be a legal rule, for the very fact that it is adopted by a minority of legal officials *means* it is not a legal rule by definition. Yet surely the majority can be

Next, there is a deeper theoretical problem with the majoritarian conception of legal rules. Even if we could poll all the legal officials of a jurisdiction for every controversy, we run once again into the problem of indeterminacy. If legal officials cannot communicate legal rules determinately, then it follows *a fortiori* that they cannot communicate legal rules to a pollster. Therefore, it can never be determined what rule any judge has in mind.

1. Visiting Assistant Professor, University of New Hampshire School of Law. [↑](#footnote-ref-1)
2. Some legal scholars distinguish between “indeterminacy,” “underdeterminacy,” and “overdeterminacy.” See Lawrence B. Solum, *On the Indeterminacy Crisis: Critiquing Critical Dogma*, 54 U. Chi. L. Rev. 462, 473 (1987). See also Charles M. Yablon, *The Indeterminacy of the Law: Critical Legal Studies and the Problem of Legal Explanation*, 6 Cardozo L. Rev. 917, 925–928 (1985). My claim is that legal rules are *overdetermined* by precedents and statutes to the extent that any legal outcome in any case accords with some legal rule that is consistent with precedent or interpretable from statutes. But if every outcome can be a legally correct outcome, then no outcome is legally incorrect, which tends to undermine the very notion of legal correctness. [↑](#footnote-ref-2)
3. See Jerome Frank, *Are Judges Human? Part Two*, 80 U. Penn. L. Rev. 233 (1931). For present purposes, I charitably assume that judges are perfectly honest, disinterested, and punctilious. I do not however pretend that judicial incompetence, partisanship, or dishonesty are trivial concerns. These are defects which can undermine the legitimacy of legal systems. SeeDaniel M. Sklar, *Judicial Incompetence: A Plea for Reform*, A.B.A. J. 1598 (1983); Lon L. Fuller, *Positivism and Fidelity to Law*, 71 Harv. L. Rev. 630 (1958).

   The issue is also intellectually interesting. The study of judicial error has borne much fruitful research. *See, e.g.,* Gillian K. Hadfield, *Judicial Competence and the Interpretation of Incomplete Contracts*, 23 J. Leg. Stud. 159 (1994); I.P.L. Png, *Optimal Subsidies and Damages in the Presence of Judicial Error*, 6 Int’l Rev. L. & Econ. 101 (1986); Barbara Luppi and Francesco Parisi, *Judicial Creativity and Judicial Errors: An Organizational Perspective* 6 J. Inst. Econ. 91 (2010); Vincy Fon, Francesco Parisi, and Ben Depoorter, *Litigation, Judicial Path-Dependence, and Legal Change,* 20 Eur. J. L. & Econ. 43 (2005). However, judicial fallibility is not relevant to a discussion about whether rules can *in principle* be determinate. Therefore, it will sharpen the contours of the issue to assume away indeterminacy arising from other sources. [↑](#footnote-ref-3)
4. I expect most legal scholars would accept that “legal rules” are the set of normative rules identified by a community’s “rules of recognition.” SeeH.L.A. Hart, The Concept of Law (1961). I do not mean to imply that Hart’s theory is universally accepted in every respect. It is surely not. See, *e.g.,* Ronald Dworkin, Taking Rights Seriously (1977); Joseph Raz, The Authority of Law (1979); Scott Shapiro, Legality (2011), Grant Lamond, *Legal Sources, The Rule of Recognition, and Customary Law*, 59 Am. J. Juris. 25 (2014). However, the proposition that legal systems require rules of recognition seems to me uncontroversial. It is difficult to imagine any plausible legal theory which does not involve something functionally similar to Hart’s rule of recognition. [↑](#footnote-ref-4)
5. See, *e.g.,* Jerome Frank, Law and the Modern Mind (1930); Karl N. Llewellyn, *A Realistic Jurisprudence: The Next Step,* 30 Colum. L. Rev. 431 (1930); Karl N. 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 (1950). Although Legal Realism was the first philosophical movement for which indeterminacy played a major theoretical role (to the extent that Legal Realists shared a “theory”), the phenomenon was undoubtedly evident to philosophers since classical antiquity. *See* Jerome Frank, *Modern and Ancient Legal Pragmatism—John Dewey & Co. vs. Aristotle: I*, 25 Notre Dame L. 207 (1950); Jerome Frank, *Modern and Ancient Legal Pragmatism—John Dewey & Co. vs. Aristotle: II*, 25 Notre Dame L. Rev. 460 (1950); James P. Sickinger, *Indeterminacy in Greek Law: Statutory Gaps and Conflicts, in* Symposion 2007: Vorträge zur griechischen und hellenistischen Rechtgeschichte 99 (E.M. Harris & G. Thür, eds. 2008). On whether Legal Realism constituted a genuine theory, see Neil Duxbury, Patterns of American Jurisprudence (1995) and Brian Tamanaha, Beyond the Formalist-Realist Divide (2010) for skeptical perspectives. [↑](#footnote-ref-5)
6. See also Richard Posner, *Pragmatic Adjudication*,18 Cardozo L. Rev. 1 (1996) andRichard Posner, Overcoming Law (1995). [↑](#footnote-ref-6)
7. It is “autological.” [↑](#footnote-ref-7)
8. The term “legal indeterminacy” is ambiguous as between many overlapping but distinct meanings. At the level of utmost generality, all versions of legal indeterminacy assert that legal rules do not uniquely determine legal outcomes. Few if any legal scholars would disagree with that rather modest claim. However, most proponents of legal indeterminism advance the stronger claim that legal rules *cannot* determine legal outcomes. Many proponents of indeterminism go further still, claiming that legal rules cannot even constrain the range of legally acceptable outcomes. *See* Solum, *supra* note 2.

   There are also many perspectives on the *reasons* *why* legal rules are indeterminate. Some versions of indeterminism emphasize the arbitrariness inherent in the characterization of facts. SeeFrank, *supra* note 5. Others locate indeterminacy in the inferential machinery of analogical reasoning. See Mark Tusnhet, *Following the Rules Laid Down: A Critique of Interpretivism and Neutral Principles*, 96 Harv. L. Rev. 781, 818 (1983). The most extreme variants of legal indeterminism assert that legal rules are indeterminate, not because the rules fail to uniquely determine outcomes, but because it is not possible to determine which rules are *law* in the first place. See, e.g.,Clare Dalton, *An Essay in the Deconstruction of Contract Doctrine*, 94 Yale L. J. 997 (1985); Giradeau Spann, *Deconstructing the Legislative Veto*, 68 Minn. L. Rev. 473 (1984); Mark V. Tushnet, *A Note on the Revival of Textualism in Constitutional Theory*, 58 So. Cal. L. Rev. 683 (1985); and Scott Hershovitz, *Wittgenstein on Rules: The Phantom Menace*, 22 Ox. J. Leg. Stud. 619 (2002). This Article falls into the last category. [↑](#footnote-ref-8)
9. “Critical Legal Studies” was the last scholarly movementwhich explicitly embraced legal indeterminacy. As it fell out of vogue, there seems to have arisen in its aftermath a cautious revival of determinism. See, e.g., Frederick Schauer, *Easy Cases*, 58 S. Cal. L. Rev. 399 (1985); Antonin Scalia, *The Rule of Law as a Law of Rules*, 56 U. Chi. L. Rev. 1175 (1989); and Cass Sunstein, *On Analogical Reasoning*, 96 Harv. L. Rev. 741 (1993). Responding to these developments, in 1993 the Harvard Journal of Law & Public Policy hosted a symposium on “Legal Formalism,” and in 1999, the University of Chicago Law Review hosted a symposium on “Formalism Revisited.”

   New research advancing legal determinism persists to the present day. In particular, it appears that efforts to reconstruct legal determinism on “pragmatic” or “naturalistic” foundations have become rather fashionable. See, e.g., Paul Troop, *Why Legal Formalism Is Not a Stupid Thing*, 31 Ratio Juris 428 (2018); Mitchell N. Berman, *Judge Posner’s Simple Law*, 113 Mich. L. Rev. 777 (2015); Paul B. Miller, *The New Formalism in Private Law*, 66 Am. J. Juris 175 (2021); Thomas B. Nachbar, *Twenty-First Century Formalism*, U. Miami L. Rev. 113 (2020). [↑](#footnote-ref-9)
10. See Brian H. Bix, Jurisprudence: Theory and Content 241 (7th ed. 2015). [↑](#footnote-ref-10)
11. It is arguable that the Critical Legal Scholars were undone precisely because they were organized enough to merit a label. See, e.g., Paul D. Carrington, *Of Law and the River*, 34 J. Legal Educ. 222 (1984); Ted Finman, *Critical Legal Studies, Professionalism, and Academic Freedom: Exploring the Tributaries of Carrington’s River*, 35 J. Legal Educ. 180 (1985); Jennifer A. Kingson, *Harvard Tenure Battle Puts ‘Critical Legal Studies’ on Trial*, N.Y. Times, Aug. 30, 1987, at section 4, page 5. It is difficult to assess today the true extent to which the Critical Legal Scholars faced viewpoint discrimination. Although some members of the “movement” contributed respectable arguments advancing the indeterminacy thesis, many professed adherents were as much inclined to dubious methodology (post-modernist “deconstruction” and an overreliance on narratives) and an imaginative proclivity for grievance. Shannon O’Byrne, *Legal Criticism as Storytelling*, 23 Ottawa L. Rev. 487 (1991); Guyora Binder, *On Critical Legal Studies as Guerilla Wafare*, 76 Geo. L. J. 1 (1987); Andrew Altman, Critical Legal Studies: A Liberal Critique (1990).

    It is plausible that in the politically conservative climate of the 1980s, there really was an active campaign to banish all “New Left” academics—a conspicuously illiberal agenda. But it is also plausible that they were rejected for want of intellectual rigor—a perfectly sound justification for extirpation from the academy. The movement’s eagerness to uncover “oppressions” at all turns tends to undermine the claim that they themselves were victims of “the system.” Yet sometimes there is a wolf. It is a question for the historians. [↑](#footnote-ref-11)
12. This Article is not the first attempt to seek a mathematical foundation for legal indeterminacy. See Mark Brown and Andrew C. Greenberg, *On Formally Undecidable Propositions of Law: Legal Indeterminacy and the Implications of Metamathematics*, 43 Hastings L. J. 1439 (1992) and Anthony D’Amato, *Pragmatic Indeterminacy*, 85 Nw. U. L. Rev. 148 (1990). [↑](#footnote-ref-12)
13. See generally Solum, *supra* note 2. [↑](#footnote-ref-13)
14. It is worth emphasizing that a rule must be *expressible* in the form of a conditional. It need not adopt the form outwardly. It is often the case that rules are presented in the form of simple declaratives rather than conditionals. However, if a proposition can be *paraphrased* in an “if-then” form, and if it is an abstract generalization, then the proposition is a rule. [↑](#footnote-ref-14)
15. Even if the set contains only one member, the proposition would still be a rule. For example, consider the rule that if a person is left-handed, then he should wear his watch on his right wrist. If it happened to be the case that there only existed one left-handed person in the world, then the rule would only apply to one individual, yet I expect most people would still think it a rule. That is because it has the *form* of a rule, and it is merely a contingent fact that there only happens to be one left-handed person in the world. The rule itself applies to any member of the set of left-handed people. If there were more left-handed people, then the proposition would also apply to them. [↑](#footnote-ref-15)
16. A *normative* rule prescribeswhat an actor must (or can permissibly) do in a given class of situations. For example, it is a normative rule that if a person feels hunger, then he should eat. The rule is normative because it involves the predicate “should eat.” Normative rules prescribe what individuals *ought* to do and typically involve expressions like, “ought,” “should,” or “must.” Note that a rule need not be prudent to be normative. For example, it is a normative rule that if a person feels hunger, then he should untie his shoes. That rule may be ineffective at ameliorating hunger, but it is nonetheless a rule. Bad rules are still *rules*. One need not feel compelled to *obey* a bad rule, but that does not make it any less a “rule.”

    By contrast, a *descriptive* rule does not assert what one ought to do, but rather how things *are*. For example, it is a descriptive rule that if a person feels hunger, then he eats. The rule is descriptive, because it does not say what the hungry person *ought* todo, but rather what he *does* do. Note that a rule need not be true to be descriptive. For example, it is a descriptive rule that if a person eats, then he becomes hungry. That rule is false, but it is nonetheless a rule. False rules are still *rules.* One need not *believe* a false rule, but that does not make it any less a “rule.” [↑](#footnote-ref-16)
17. A more natural label here would be “positive,” however I avoid using this term so as not to implicate the philosophy of “legal positivism,” the primary concerns of which are orthogonal to our present concerns. [↑](#footnote-ref-17)
18. What makes a person a “legal official” is not a trivial matter. It is natural to suppose that legal officials are the people empowered by some power-conferring rule to make legal decisions. But consider: if what makes a rule a *legal* rule is that it is recognized by legal officials, then this is clearly question-begging. Several solutions have been proposed to resolve the paradox. *See generally* Scott J. Shapiro, Legality 39–44 (2011). That controversy is not directly relevant to the present inquiry. For present purposes, “legal officials” are the people who decide legal questions—predominantly judges, and to a lesser extent juries, prosecutors, legislators, and administrative officials. [↑](#footnote-ref-18)
19. See Hart, *supra* note 4. See also Shapiro, *supra* note 13. [↑](#footnote-ref-19)
20. Robinson v Harman [1848] 1 Ex Rep 850. *See also* Hawkins v. McGee, 84 N.H. 114 (1929).. [↑](#footnote-ref-20)
21. A “legal official” is any legal decision-maker—magistrate, judge, or jury. [↑](#footnote-ref-21)
22. To be precise, the rule entailed by the legal rule is: if a person wishes to avoid liability, then he should exercise reasonable care when undertaking risky activities. Obviously, in order to instantiate the rule, the premise (that the person wishes to avoid liability) must be true. [↑](#footnote-ref-22)
23. An notable example of the alternative conception can be found in John Austin, The Province of Jurisprudence Determined (1832). [↑](#footnote-ref-23)
24. The Indiana House of Representatives apparently held a contrary jurisprudential perspective when it advanced a bill recognizing the mathematical proposition that . Alas, when it came before the Indiana Senate, “[t]he bill was about to be passed when the point was raised that the Legislature had no power to declare a truth, and it was indefinitely postponed.” Arthur E. Hallenberg, *House Bill No. 246 Revisited*, 84 Proc. Ind. Acad. Sci. 376, 391 (1972). [↑](#footnote-ref-24)
25. I acknowledge that people do sometimes use the term “law” to describe true descriptive rules. For example, the “laws of physics” are descriptive rules. This usage of the term “law” likely arose as an *analogy* to the laws governing citizens of a political state. The connection is merely figurative. The term “law” in the context of science simply does not have the same meaning as “law” in a legal context. The two usages of “law” not only involve different subject matter, but they are entities which are fundamentally different in kind. [↑](#footnote-ref-25)
26. Mark Motivans, Bureau of Justice Statistics, *NCJ 254598, Federal Justice Statistics, 2017–2018* (2021), available at: <https://bjs.ojp.gov/content/pub/pdf/fjs1718.pdf>. [↑](#footnote-ref-26)
27. This is the common law rule, which has been codified in the U.S. Code and several states. *See, e.g.,* 18 U.S. Code § 1111; Cal. Pen. Code § 187; O.C.G.A. 16-5-1 (2010). [↑](#footnote-ref-27)
28. This distinction is sometimes confused for Hart’s “internal” and “external” perspectives. It is not the same distinction. See Hart, *supra* note 4 at 89. *See also* Douglas E. Litowitz, *Internal versus External Perspectives on Law: Toward Meditation*, 26 Fla. St. U. L. Rev. 127 (1998). [↑](#footnote-ref-28)
29. Jennifer Böhm, et al. *The Venus Flytrap* Dionaea muscipula *Counts Prey-Induced Action Potentials to Induce Sodium Uptake*, 26 Current Biology 286 (2016). [↑](#footnote-ref-29)
30. This condition can be easily generalized to rules which do not *determine* but merely *constrain* the set of legal outcomes available to a court. To model such a rule, simply let , where we interpret the output of as the set of legally permissible judgments, from which a court may choose at its discretion. Alternatively, a legal constraint could be modeled as a set of determinate rules, between which a court could pick at its discretion. Neither modification affects the result of my argument (i.e., that rules cannot determine/constrain the set of legal outcomes). [↑](#footnote-ref-30)
31. It is debatable whether customary law should count as *law*. See Austin, *supra* note 18. [↑](#footnote-ref-31)
32. *See* H.L.A. Hart, The Concept of Law 124 (1997) . I suppose that “divine revelation” is arguably a third method of acquiring knowledge of legal rules. *See* Thomas Aquinas, *Summa Theologica*,Question 90, Article 4. I concede I have no answer to claims of divine revelation. Readers who have acquired knowledge of legal rules in this way are welcome to regard this lacuna as a defect in my theory. [↑](#footnote-ref-32)
33. Similar pattern recognition problems are often used in intelligence testing. William Stern, The Psychological Methods of Testing Intelligence(Guy Montrose Whipple, trans.) (1914). Presumably the psychologists who design such tests believe that mathematically correct continuations exist. They are mistaken. No answer is any more or less correct than any other. [↑](#footnote-ref-33)
34. This can easily be generalized to representations of disputes involving *multiple* criteria. If we want to represent rules with criteria, then we need only modify our definitions so that , , and . Such extensions would be realistic because most legal rules are thought to involve multiple elements or factors. Extending the theory to multiple elements or factors would entail representations in dimensions, which is somewhat cumbersome and unintuitive. Therefore, without loss of generality, I will restrict my discussion to the unidimensional model for simplicity. [↑](#footnote-ref-34)
35. If disputes cannot be sensibly ordered, or if outcomes cannot be sensibly ordered, then the principle that “like cases be treated alike” would be impracticable. The absence of sensible orderings on these sets implies that competent members of the legal community are either incapable of recognizing “like” disputes, or incapable of recognizing “like” outcomes. Therefore, if this assumption were false, then it would follow directly that legal rules are indeed indeterminate, and no further argument would be required to prove my claim. [↑](#footnote-ref-35)
36. I assume that this ancient principle is essential to all legal systems. See generally Aristotle, Nicomachean Ethics, V.3. 1131a10–b15; Politics, III.9.1280 a8–a15, III. 12. 1282b18–23. See also H.L.A. Hart, The Concept of Law, Chapter VIII; Lon Fuller, The Morality of Law; Judith Shklar, Legalism. [↑](#footnote-ref-36)
37. Indeed, if then there will be infinitely many such functions. Therefore, there will exist infinitely many valid models. [↑](#footnote-ref-37)
38. Specifically, every , such that , is a bijection, and is a surjection, is a model of a rule. [↑](#footnote-ref-38)
39. 2022 Fla. Stat. § 806.01. [↑](#footnote-ref-39)
40. The typical first-year law school curriculum will disabuse anyone who might doubt this claim. An exploration of the complications which arise due to these issues may be found in any criminal law casebook. For example, Joshua Dressler and Stephen P. Garvey, Criminal Law: Cases and Materials (9th ed. 2022), Sanford H. Kadish, Stephen Schulhofer, and Rachel E. Barkow, Criminal Law and Its Processes: Cases and Materials (11th ed. 2022). [↑](#footnote-ref-40)
41. *Ejusdem generis,* Black’s Law Dictionary (11th ed. 2019). [↑](#footnote-ref-41)
42. *See, e.g.,* Magee v. Coca-Cola Refreshments, Inc. 833 F.3d 530, 534 (5th Cir. 2016); Slakman v. Admin. Comm. Delta Air Lines, Inc., 660 Fed. Appx. 878, 881 (11th Cir. 2016); James v. United States, 550 U.S. 192, 199 (2007). [↑](#footnote-ref-42)
43. Though I will show that any attempt to express an interpretive rule must be fatally ambiguous, the ambiguity of *ejusdem generis* is especially obvious. Consider the following rule: “If is a dog, cat, gerbil, or other animal, then should not be brought into the building.” What does “other animal” mean? This seems to be an obvious case where a rule like *ejusdem generis* could be helpful. Presumably, we are supposed to infer from the specifically named animals (i.e., dog, cat, gerbil) that *pets generally* are not allowed in the building. We are supposed to infer that “other animals” means pets because dogs, cats, and gerbils are commonly kept as pets. But there is no principled reason to suppose that *the class of animals commonly kept as pets* is the correct meaning. It could be that the term “other animals” refers to the set of mammals, or the set of endotherms, or the set of physical objects. Indeed, it could imply *any* set that includes dogs, cats, and gerbils. There is no reason why we could not say that any member of the class should not be brought into the building. Of course, the objection that trombones are not animals could be met with a skeptical inquiry into the meaning of “animal.” [↑](#footnote-ref-43)
44. *Chien*, Le Dictionnaire de l’Académie française, Vol. I (9th ed., 1992). [↑](#footnote-ref-44)
45. *Mammifère,* Le Dictionnaire de l’Académie française, Vol. II (9th ed., 2000). [↑](#footnote-ref-45)
46. The general plan for my proof loosely resembles Wittgenstein’s rule-skeptical argument in Philosophical Investigations § 201 (trans. G.E.M. Anscombe 1953). See also Saul A. Kripke, Wittgenstein on Rules and Private Language (1982); Nelson Goodman, Fact, Fiction, and Forecast (4th ed. 1983). However, the purposes for which I intend my argument differ substantially from Wittgenstein’s. [↑](#footnote-ref-46)
47. Where the subscript indices are irrelevant, I omit assigning a variable and write simply , which should be read to mean *a member of .* [↑](#footnote-ref-47)
48. It would perhaps be slightly more interesting to claim that judges *frequently do* make decisions contrary to the requirements of law. Yet the significance of such a claim would be practical not philosophical. It seems that at least some of the legal realists were principally interested in practical indeterminacy rather than metaphysical indeterminacy. [↑](#footnote-ref-48)
49. See Stephen Breyer, Active Liberty: Interpreting Our Democratic Constitution (2005); Richard Posner, Overcoming Law 4 (1995). This is the sort of indeterminacy that “rule of law” proponents are wont to criticize. See Antonin Scalia, The Rule of Law as a Law of Rules, 56 U. Chi. L. Rev. 1175 (1989). [↑](#footnote-ref-49)
50. It takes no effort to generate examples. For instance: if one is faced with a decision, then one should choose to think about butterflies. That is clearly a normative rule, which is universal in scope, and which prescribes one correct choice (the same choice) for every decision problem. [↑](#footnote-ref-50)
51. The existence of sentencing guidelines disprove that proposition instantly. For example, the U.S. Federal Sentencing Guidelines prescribe ranges, and they are advisory not mandatory. See *Blakely v. Washington,* 542 U.S. 296 (2004); *United States v. Booker*, 543 U.S. 220 (2005). There is a more sophisticated variant of the “right answer thesis,” advanced by Ronald Dworkin, which I will address in greater detail below. [↑](#footnote-ref-51)
52. See sources cited *supra* note 47. Expositions of rule-skepticism in the prior literature typically rely heavily on thought experiments and illustrative examples. My version of the argument is better in several respects. First, I make the operation of the “like cases” relation explicit in Definitions 1.2 and 1.3. This obviates the common complaint that rule-skeptical hypotheticals like “grue” or “quus” are *ad hoc* or unnatural. For an example of criticism along these lines, see David Lewis, *New Work for a Theory of Universals*, 61 Australasian J. Phil. 343, 376 (1983). Second, reformulation of the skeptical argument in mathematical terms makes the conclusion precise and rigorous. Indeterminacy is nothing more than ambiguity. [↑](#footnote-ref-52)
53. To the extent that semantic rules are also normative rules, my conclusions about legal rules would apply, *mutatis mutandis*, to linguistic meaning as well. However, it is not obvious that semantic rules are necessarily normative rules. See, e.g., Kathrin Glüer and Peter Pagin, *Rules of Meaning and Practical Reasoning*, 117 Synthese 207 (1998); Kathrin Glüer, *Sense and Prescriptivity*, 14 Acta Analytica 111 (1999); Åsa Maria Wikforss, *Semantic Normativity*, 102 Phil. Stud. 203 (2001); and Kathrin Glüer and Åsa Wikforss, *Against Content Normativity*, 118 Mind 31 (2009). When I use the term “dog” to refer to dogs, it is not self-evident that I am obeying the normative rule that I *should* say “dog” if I wish to refer to a dog. Rather, it could be that I say “dog,” because I have a subjective expectation that the person to whom I am speaking is likely to think I am referring to the dog when I say “dog.” My belief is formed from what I know about the person to whom I am speaking and my ability to project how I myself would interpret the utterance were I in his position.

    Notice that this account requires neither normativity nor rules to explain meaning. To illustrate the point, imagine two prelinguistic troglodytes: one short (call him “Ugh”) and one tall (call him “Fugh”). Suppose Ugh is unable to reach an apple dangling from a tree, but suppose that the apple is easily within Fugh’s reach. Ugh gestures at the apple and grunts plaintively to Fugh. It seems eminently plausible that Fugh would understand Ugh to mean that Fugh should get the apple for him. Fugh’s interpretation of Ugh’s gestures and grunts are not the product of any semantic rule, but rather an inference that Fugh forms about Ugh’s motives by imagining himself in Ugh’s position and reasoning backwards about what would have motivated him to make those gestures and grunts.

    The Wittgenstein scholar will complain that a “predictive” account of meaning, such as I have just posited, misses the point of the skeptical paradox. If semantic rules are indeterminate, then it is not merely indeterminate *to others* what a speaker means; it must also be indeterminate for the speaker himself. Who cares that when I say, “That’s a friendly dog,” I anticipate that the recipient of my utterance is likely to interpret it to mean the dog is friendly? The real issue is that when I say, “That’s a friendly dog,” it should also be indeterminate *to me* what the expression means.

    However, a predictive account of meaning does *not* miss the point. Successful communication is an equilibrium. It relies on the speaker anticipating how a hearer interprets his words by imaging himself in the hearer’s position, but it also relies on the hearer anticipating why a speaker would utter those words by imagining himself in the speaker’s position. The meaning of an utterance is thus a fixed point, where the speaker interprets an utterance to mean what he thinks the hearer will interpret it to mean, and the hearer interprets the utterance to mean what he thinks the speaker interprets it to mean. When a speaker is speaking to himself, then it becomes trivially the case that an utterance means whatever he thinks it means.

    If all that is required for successful communication is agreement, then it matters not what is normatively “correct,” but merely that the parties share the same interpretive tendencies. The standard objections given to such “dispositional” accounts seem to me to require too much of meaning. I should think I can mean something by an utterance even if I sometimes use language inconsistently, and even if I am unable to contemplate the infinitely many applications of a rule in my finite mind. So long as I can agree with other language speakers (including myself) most of the time, this seems to me a sufficient account of meaning in the presence of rule indeterminacy. [↑](#footnote-ref-53)
54. For example, if we *define* the term “God” as denoting a particular chair, then it is a trivial claim that “God” exists because the chair exists. The issue is not whether the inference from definitions is *trivial*, but rather whether the definitions capture the concept which made the problem philosophically interesting. [↑](#footnote-ref-54)
55. I recognize that there remains some controversy about the nature of the secondary rules. For example, whether secondary rules can identify moral propositions as creating legal obligations, or whether the designation of legal officials is metaphysically prior to the recognition of legal rules. These intramural disputes are orthogonal to the present inquiry. It suffices for present purposes merely to recognize that practically all positivists would accept my definition of legal rules in its general formulation. [↑](#footnote-ref-55)
56. H.L.A. Hart, *Positivism and the Separation of Law and Morals*, 71 Harv. L. Rev. 593, 607 (1958). [↑](#footnote-ref-56)
57. Id. *See also* Hart, *supra* note 4 at 126. [↑](#footnote-ref-57)
58. Charles M. Yablon, *The Indeterminacy of the Law: Critical Legal Studies and the Problem of Legal Explanation*, 6 Cardozo L. Rev. 917, 918 (1985). [↑](#footnote-ref-58)
59. The experiment was conducted using Amazon Mechanical Turk. Participants reported having at least a high school degree. They were paid $1 for their participation. 344 individuals participated in the experiment. I discarded 83 results. My reasons for discarding a result were either (1) at least one answer was nonsensical, indicating the subject did not carefully read the questions, or (2) several identical results were returned with highly unusual answers, indicating that the response was likely the work of an automated bot rather than a human test subject. There are of course many methodological issues associated with survey experiments and Mechanical Turk. See Gabriele Paolacci, Jesse Chandler, and Panagiotis G. Ipeirotis, *Running Experiments on Amazon Mechanical Turk*, 5 Judgment and Decision Making 411 (2010). Nevertheless, the use of Mechanical Turk is generally accepted in the social sciences, and the results seem plausible enough. [↑](#footnote-ref-59)
60. The precise formulation of the series of questions was:

    A city ordinance reads, “No vehicles shall be permitted in public parks.” Imagine you are a judge. The following cases have come before you. What do you believe would be a reasonable judgment in each of the cases?

    A person drives a car through the park. Does this violate the city ordinance?

    A person rides on a bicycle through the park. Does this violate the city ordinance?

    An airplane flies at 30,000 feet directly above the park. Does this violate the city ordinance?

    A person roller skates through the park. Does this violate the city ordinance? [↑](#footnote-ref-60)
61. Hart, *supra* note 38. [↑](#footnote-ref-61)
62. The precise formulation of the question was: “You are given the following points: . If , then what value for would be most consistent with the pattern? In other words, what do you think is the most reasonable value for .” [↑](#footnote-ref-62)
63. The precise formulation of the question was: “You are given the following sequence of numbers (the first number is omitted): \_\_ , 3, 5, 7. What do you think the first number in the sequence should be?” [↑](#footnote-ref-63)
64. The primes constitute a sequence that is fundamental to number theory and natural phenomena, and it should have been an attractive “rule” to infer from the given exemplars. For an amusing example, see Eric Goles, Oliver Schulz, and Mario Markus, *Prime Number Selection of Cycles in a Predator-Prey Model,* 6 Complexity 33 (2001). The fact that additive sequences are so salient to most people may simply be a quirk of human biology, although it seems that we are to some extent hardwired to think in logarithmic rather than linear scales. SeeLav R. Varshney and John Z. Sun, *Why Do We Perceive Logarithmically?* 10 Significance 28 (2013). My rather cynical reason for expecting most test subjects would answer “1” was simply that the quality of mathematics education in this country is so poor, I doubt most people are even aware of what a prime number is. [↑](#footnote-ref-64)
65. Only five test subjects answered “2” (the prime number sequence). One individual answered “4.” [↑](#footnote-ref-65)
66. Charles M. Yablon, *The Indeterminacy of the Law: Critical Legal Studies and the Problem of Legal Explanation*, 6 Cardozo L. Rev. 917, 919 (1985). [↑](#footnote-ref-66)
67. This is a subtle and often neglected point. Yet the basic insight is not new. John Dewey, *Logical Method and Law*, 10 Cornell L. Q. 17, 25 (1924) (“There is a wide gap separating the reasonable proposition that judicial decisions should possess the maximum possible regularity in order to enable persons in planning their conduct to foresee the legal import of their acts, and the absurd because impossible proposition that every decision should flow with formal logical necessity from antecedently known premises.”). [↑](#footnote-ref-67)
68. See Ozkan Eren and Naci Mocan, *Emotional Judges and Unlucky Juveniles*, 10 Am. Econ. J.: Applied Econ. 171 (2018) (finding that judges who graduated from Louisiana State University sentence juveniles more harshly when the LSU football team loses in an upset, and more leniently when they win). [↑](#footnote-ref-68)
69. See, e.g., Leslie A. Real, *Animal Choice Behavior and the Evolution of Cognitive Architecture*, 253 Sci. 980 (1991); Merlin Donald, *Human Cognitive Evolution: What We Were, What We Are Becoming*, 60 Soc. Res. 143 (1993); Mark P. Mattson, *Superior Pattern Processing is the Essence of the Evolved Human Brain*, 8 Frontiers in Neuroscience 1 (2014); Carel ten Cate and Michelle Spierings, *Rules, Rhythm and Grouping: Auditory Pattern Perception by Birds*, 151 Animal Behavior 249 (2019). The Philosophical Transactions of the Royal Society recently devoted two issues to the relationship between pattern recognition and evolution. *See* 367 Phil. Trans. R. Soc. B 1925–2246 (2012). [↑](#footnote-ref-69)
70. Evidence of such *a priori*  [↑](#footnote-ref-70)
71. It may seem here that I am endorsing something like Dworkin’s theory of “law as integrity.” Ronald Dworkin, Law’s Empire (1986). I am not. I attach no special significance to the purposes an individual may impute to a precedent or statute. The purposes which an individual perceives could be entirely arbitrary. Moreover, I seek merely to explain how consensus can arise. I do not think there is any reason to suppose that the consensus rule has any better justification as being the legal rule than any other rule. [↑](#footnote-ref-71)
72. The rejection of legal determinism is implicit in the research of many scholars working in Critical Race Theory and Feminist Legal Theory. Research in these areas assumes that legal outcomes are essentially manifestations of political power. *See, e.g.,* Michelle Alexander, The New Jim Crow: Mass Incarceration in the Age of Colorblindness (2nd ed. 2020); Richard Rothstein, The Color of Law: A Forgotten History of How Our Government Segregated America (2017); Catherine A. MacKinnon, Toward a Feminist Theory of the State (1989). [↑](#footnote-ref-72)
73. See Jerome Frank, Law and the Modern Mind 111 (1930) (“To know the judge’s hunch-producers which make the law we must know thoroughly that complicated congeries we loosely call the judge’s personality.”). [↑](#footnote-ref-73)
74. Of course people can *explain* why they believe a precedent or statute communicates one rule rather than another, but that is not a *justification*. A justification is not an explanation for why one person *believes* that some rule is law; a justification is an explanation for why everyone *should believe* that that rule is law. If a court perceives a different rule, then the disappointed litigant might appeal to the tastes of a higher court. But in the end, what is law is up to the caprices of “Humpty Dumpty.”

    “When *I* use a word,” Humpty Dumpty said, in a rather scornful tone, “it means just what I choose it to mean—neither more nor less.”

    “The question is,” said Alice, “whether you *can* make words mean so many different things.”

    “The question is,” said Humpty Dumpty, “which is to be master—that’s all.”

    Lewis Carroll, Through the Looking-Glass, and What Alice Found There (1872), *reprinted in* The Annotated Alice 129, 213 (2000). [↑](#footnote-ref-74)
75. Wittgenstein goes further, claiming that this precludes private meaning altogether. Wittgenstein, *supra* note 41. [↑](#footnote-ref-75)
76. See Hart, *supra* note 4 at 94. [↑](#footnote-ref-76)
77. Indeed, Justice Cardozo thought it unlikely to make much difference to an outcome whether judges were “bound” by a statute or free to exercise their discretion.

    [W]hen the law has left [a] situation uncovered by any pre-existing rule, there is nothing to do except to have some impartial arbiter declare what fair and reasonable men, mindful of the habits of life of the community, and of the standards of justice and fair dealing prevalent among them, ought in such circumstances to do, with no rules except those of custom and conscience to regulate their conduct. The feeling is that nine times out of ten, if not oftener, the conduct of right-minded men would not have been different if the rule embodied in the decision had been announced by statute in advance.

    Benjamin N. Cardozo, The Nature of the Judicial Process 143 (1921). [↑](#footnote-ref-77)
78. The New Oxford Book of Children’s Verse 108 (N. Philip, ed. 1996). [↑](#footnote-ref-78)
79. Gilbert Ryle, The Concept of Mind 16 (1949). [↑](#footnote-ref-79)
80. Church of the Holy Trinity v. United States, 143 U.S. 457 (1892) (inferring that the legislature of a “Christian nation” could not have intended the statute to apply to a foreign clergyman). [↑](#footnote-ref-80)
81. In the conventional terms of jurisprudence, the view here entertained is that the rule of recognition does not identify legal rules, but merely authoritative sources, and those authoritative sources *in combination* with a general consensus among legal officials about their meaning are what constitute primary rules. [↑](#footnote-ref-81)
82. Logically, more is required. Legal officials must also agree about the meaning of the *presumption of innocence* to infer the inverse proposition that if a person has *not* killed another person with malice aforethought, then he is *not* guilty of murder. [↑](#footnote-ref-82)