COUNTERINTUITIVE CONSEQUENCES OF "PLAIN MEANING"*

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One of the most currently popular ideas in jurisprudence is that legal rules should be interpreted according to their plain or ordinary meaning. A boost has been given to this position by Justice Scalia in his decisions and addresses.[1] The plain meaning approach fits hand-in-glove with legal formalism, defined by Frederick Schauer as characterizing a decision-maker who "reaches the result indicated by some legal rule, independent of that decision-maker's own best judgment and independent of the result that might be reached by direct application of the justifications lying behind the rule."[2] I like to think of plain meaning as analogous to the curved spikes that one often sees at the entrance to a parking lot or parking garage — you can drive your car forward over the spikes, but if you try to back up, the spikes will puncture all your tires. In most cases the curved spikes work fairly well, but sometimes situations can arise where the curved spikes are a disaster — for example, there is a fire in the parking garage, or you have a heart tremor and you want to back out of the lot and drive to the hospital. The rigidity and lack of human reasonableness of the curved spikes means that their cheap cost is spread out over many cases, most of which are easily accommodated, but a few of which can be expensively counterproductive. Similarly, if we take a rigid approach to legal rules, although our approach may work or seem to work well in the run-of-the-mill cases, sometimes situations arise where rigidity produces grave injustice.

Can a rule *ever* have a "plain meaning" that works the way the curved spikes work? Take the ordinary red traffic signal outside your window and observe that thousands and thousands of cars duly stop at that signal every day and then proceed on the green signal. Isn't it plain that "red" means "stop your car"? Surely these thousands and thousands of cases, you may well claim, are not *problematic* or *indeterminate*! They seem to stand for a rule that has a clear meaning to all reasonably situated observers.

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1. *See, e.g.*, Burnham v. Superior Court of Cal., 110 S. Ct. 2105, 2117-19 (1990) (Scalia, J., plurality); Employment Div. v. Smith, 110 S. Ct. 1595 (1990); Scalia, *The Rule of Law as a Law of Rules*, 56 U. CHI. L. REV. 1175 (1989).

2. Schauer, *Rules and the Rule of Law*, 14 HARV. J.L. & PUB. POL'Y 645, 664 (1991).

As a defender of Pragmatic Indeterminacy,[3] my position regarding the "red light" situation is two-fold. The first problem is one of knowledge.[4] Do we really know that each and every one of those thousands of cases is not problematic? Is it possible that some driver stopped at the red light when she should not have stopped, and that in stopping she endangered the life of a child passenger who had to be rushed to a hospital? The second question is one of language. Suppose the traffic signal is bright orange and not "red," or the vehicle we are driving is a motorized wheelchair, or that it is unclear *when* we should stop (i.e., we have reached the halfway point in the intersection of the streets when the light turns red). If this apparently nonproblematic rule contains hidden ambiguities or difficulties of application, is every rule inherently ambiguous, vague, or indeterminate?

These positions associated with Pragmatic Indeterminacy have been advocated strenuously, encouraging replies in the legal literature. Some people are content to call realists, crits, and pragmatic indeterminists "nihilists," and let it go at that. But a number of others, like Kenney Hegland, have usefully joined the debate. The present essay is largely a reaction to Professor Hegland's thoughtful article, *Indeterminacy: I Hardly Knew Thee.*[5]

I. PLAIN MEANING CANNOT ALWAYS WORK

I start with the view, well defended by Stanley Fish though in a different way,[6] that interpretation according to a supposed "plain meaning" cannot always work. If you reply that you are content to have it work *most* of the time, I would rejoin that its workability may be only apparent and not intrinsic. Its apparent workability may be a function of economic resources — we think the plain meaning approach works most of the time because, most of the time, we have no economic incentive to try to defeat it. You drive slightly over the speed limit and a police officer stops you; you decide not to argue about it[7] because paying the fine is cheaper in terms of the value of your time.

If my argument that plain meaning cannot *always* work is persuasive, then it will be remitted to the advocates of plain meaning to show precisely when it works and when it does not. I do not believe they can draw such a line. Hence, if I can demonstrate that plain meaning doesn't always work, I will have gone a long way toward proving that *we just can't tell when plain meaning will work.* If each and every case is indeterminate in precisely this fashion, then language runs out. We have to look to other values — in my opinion, the normative value of justice — to decide cases.

My argument proceeds as follows. First, on the level of knowledge, any written formula such as that contained in a rule or statute is a severe reduction of reality. No word can capture the full richness of human existence, and hence

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3. *See* D'Amato, *Pragmatic Indeterminacy*, 85 NW. U.L. REV. 148 (1990).

4. I am indebted to my colleague Ronald Allen for helping me to straighten out some of these positions.

5. Hegland, *Indeterminacy: I Hardly Knew Thee*, 33 ARIZ. L. REV. 509 (1991).

6. *See* S. FISH, DOING WHAT COMES NATURALLY (1989).

7. You could raise the questions, as I did once in court, whether the police officer's radar equipment was working properly and whether he had a "quota" of traffic tickets to give out

there is always "much more out there" than any word can represent. Second, on the level of language, a context can always be imagined — and it may even be the context of the specific case at hand so long as we invest enough resources in uncovering the facts of that case — that would throw into genuine and reasonable doubt the meaning of any given rule.[8]

But does the pervasive possibility of indeterminacy mean that we can no longer communicate with each other? Is Professor Hegland right in saying that indeterminacy makes communication "impossible"? Clearly there is an alternative, namely, that all our communication is indeterminate, and yet indeterminacy of communication is the best we can do. "Indeterminate" does not mean "nonsense." "Indeterminate" means only that we can never be certain that what we hear is either exactly what the speaker intended or exactly what the word "means."[9] Nevertheless, indeterminate communication seems to work for most practical purposes. In most situations, we can tinker with, and refine, the communication until we obtain results that are approximately what we intended. For example, if you are so fortunate as to have the services of a secretary, on

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that may have unfairly prejudiced him against anyone who was driving at (but not more than) the speed limit.

8. The proof of this proposition is akin to the famous proof by George Cantor of the nondenumerability of the real numbers. Mathematics had not seen a proof like it until Cantor invented such a proof at the end of the nineteenth century. Cantor showed that if his opponent were to list all the numbers between any two real numbers, Cantor could then invent a number, also between those two real numbers, that was different from every number on the list. *See, e.g.*, I. STEWART & D. TALL, THE FOUNDATIONS OF MATHEMATICS 228-48 (1977). I have previously given an account of Cantor's proof in a discussion of cybernetic consequences of jurisprudential theory. *See* A. D'AMATO, JURISPRUDENCE: A DESCRIPTIVE AND NORMATIVE ANALYSIS OF LAW 136-37 (1984) [hereinafter JURISPRUDENCE]. Applying Cantor's approach, a Pragmatic Indeterminist cannot prove the generalization that every imaginable rule can change under some contexts, but rather that for every rule cited or imagined by any formalist, a context can be invented that would render such a rule indeterminate. *See, e.g.*, D'Amato, *Aspects of Deconstruction: The "Easy Case" of the Under-aged President*, 84 NW. U.L. REV. 250 (1990); D'Amato, *Aspects of Deconstruction: The Failure of the Word "Bird,"* 84 NW. U.L. REV. 536 (1990). Lon Fuller, though not an indeterminist, came up with the first and most clear example of a context that rendered an otherwise unproblematic word totally problematic. Fuller, *Positivism and Fidelity to Law — A Reply to Professor Hart*, 71 HARV. L. REV. 630, 663 (1958) (does a vehicle in a park include a truck to be mounted on a pedestal as a memorial?). I've suggested that this is a truly Godelian counterexample to H.L.A. Hart's notion of the "core meaning" of a word and, hence, opens up the possibility of many such examples for every word. *See* D'Amato, *Can Legislatures Constrain Judicial Interpretation of Statutes?*, 75 VA. L. REV. 561, 596-602 (1989) [hereinafter *Judicial Interpretation*].

9. The only exception is a tautological one; thus, we may *define* a triangle as an enclosed figure in a plane bounded by three intersecting straight lines. In that case, we know what a triangle "means." But even in this apparently nonproblematic case, the real world can intrude with contexts that make the notion indeterminate. For example, Reimann's alternative geometry of the nineteenth century shows that Euclid's "triangle" in two-dimensional space is premised on a flat manifold, but that a curved manifold will be totally consistent with Euclid's definition of a "triangle" in N-dimensional space. We can still call the sides of the triangle "straight," but concepts such as the area of the triangle or the sum of its angles will vary depending on the curvature of the manifold. Nor is this simply a matter of one's imagination. The world we live in is three-dimensional; hence a true Euclidean triangle does not exist and never has existed in our real world. When we draw such a triangle on the blackboard, we are presenting an idealized version of a two-dimensional triangle. My position is that any word — "triangle" or any word you please — is an idealized picture of something in your mind as you use the word. Hence the word is only an accurate picture of what you have in your mind, but your mind may not contain an accurate picture of the real world any more than a triangle on a blackboard is an accurate picture of a true two-dimensional triangle.

the first day of the job you undoubtedly communicated many aspects of the job requirements to that person. But, inevitably, mistakes, misinterpretations, or new circumstances will arise when you have to send an item back with new instructions. Sooner or later your secretary learns your "routine," so you can know with reasonable certainty that any given instruction will be executed the way you intended. Throughout the period of employment, you can never be certain that any given instruction will not have to be revised. The best you can hope for, in a good secretary, is a gradual "learning" of your "routine" coupled with a good sense of judgment.[10] Sometimes we happen to get the result we want by a communication that is itself faulty. Consider the point made many years ago by Lon Fuller in an all-too-ignored remark: the housemaid "knows that when her master tells her to 'drop everything and come running,' he has overlooked the possibility that she is at the moment in the act of rescuing the baby from the rain barrel."[11] In brief, *despite* the words the master used, he managed to obtain the result he wanted. Thus, we live in a world where we use language and many other signals (body language, facial expressions, gestures, and so forth) to produce what we hope will be suitable reactions on the part of others who hear or see us.[12] But there is no *necessary* connection between the signals we employ and the reaction on the part of the listener. At best, we can only hope for general pragmatic efficacy. In short, it is not the *words* that determine the result, but rather the results that cause us to have confidence in the words.

I can *never* use *any* word with total assurance that what I intend by that word is exactly what someone else understands when he or she reads or hears my word. It is always a matter of more or less and hit or miss, and that is one reason we have so many misunderstandings and so many lawsuits. Every word that I use comes from my own life experiences. I learned that particular word farther back than I can remember, and each time I used it or read it in the writings of others or heard it, a little increment of meaning was added, for me, to the word. When I use the common word "time," for instance, not only is it associated with thousands of instances in my memory of people asking "what time is it?,"[13] but it is also associated with a great deal of reading and thinking about the nature of time. I doubt that anyone has read exactly the same books I have read on the philosophy of time and on science-fiction speculations about time-travel. Certainly no one has had exactly the same thoughts about "time"

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10. Even when communication is designed to be ultra-precise, such as military communications conducted in code, there are, and always will be, monumental misunderstandings and misinterpretations. *See, e.g.*, J. RUSBRIDGER & E. NAVE, BETRAYAL AT PEARL HARBOR (1991), and bibliography therein; *Judicial Interpretation*, *supra* note 8, at 565-68 (military codes).

11. Fuller, *The Case of the Speluncean Explorers*, 62 HARV. L. REV. 616, 625 (1949).

12. Sometimes our message is clear but we are uncertain about how the listener interpreted it. Many contractual disputes involve an undisputed text that nevertheless gives rise to widely varying notions among the contracting parties as to what the text requires the parties to do. Coded messages often — because of their brevity — are interpreted literally when no such literal interpretation was intended. *See* the discussion on coded messages in *Judicial Interpretation*, *supra* note 8, at 565-69.

13. And whenever somebody does, I suppress an urge to reply with Yogi Berra's classic answer to this question: "You mean right now?" Mr. Berra (also author of "it's deja vue all over again") was a Socratic master of indeterminacy.

that are presently stored in my memory-bank. So when I use the word "time," the meaning my mind attaches to that word is a function of the memories and experiences stored in my memory bank with respect to that word. No one else's memories and experiences can be exactly the same as mine. Indeed, some people's memories and experiences might be radically different. For example, like most lawyers, I believe in getting to an appointment "on time," which means, for me, getting there within a minute or two of the appointed time. But many people, especially people from different cultures, believe that "on time" means getting to an appointment within an hour or two of the appointed time. If lawsuits arose whenever there was a misunderstanding about the meaning of "I'll see you at 4 o'clock" or "the party begins at 7:30," the courts would be overwhelmed with lawsuits. The only reason we do not have such lawsuits is that they are not worth the money to go to court about — *not* that language is precise.

What is less noticed is the fact that even the speaker cannot repeat a word with exactly the same meaning previously assigned to that word.[14] The very next time I use a given word, that use will incorporate the contextual connotations of the previous time I used the word, and so the cumulative connotations associated with the subsequent use of the word will be richer than those associated with the previous use. Meanings are fleshed out by the connotations in which words are used; hence the meaning any speaker attaches to a word must incorporate the meaning that has been previously attached to the same word. Moreover, all these indeterminacies are compounded and amplified when we are dealing with interpersonal communication, because we not only have the unique set of connotations in the mind of the speaker to reckon with, but we also have the different set of unique connotations in the mind of the listener. The context in which the listener (say, a court) interprets the word or phrase necessarily must be different from the context in which the speaker (the legislature) uttered those words. Even when a legislator *imagines* a future context for application of the statute she enacts, and even if her imagination is extraordinarily prescient and rich in detail, the content of her imagined picture must differ in a multiplicity of ways from the *actual* context in which a subsequent court is called upon to "interpret" and "apply" her statute.[15]

It is an irreducible fact of linguistic communication that every word derives part of its meaning and significance from the context in which it is uttered or read. As Friedrich Waissmann put it:

> The idea of a closed system of laws lasting for all time, and able to solve any imaginable conflict, is a Utopian fantasy which has no foundation to stand upon.... No language is prepared for all possibilities.[16]

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14. As the father of indeterminacy, Heraclitus, said in 500 B.C., "You cannot step twice into the same river."

15. The fascinating question of whether a legislator may exercise some kind of control over the court that interprets the statute has recently been addressed by several writers. For references as well as my own attempt at dealing with this question, see *Judicial Interpretation*, *supra* note 8.

16. F. WAISSMAN, THE PRINCIPLES OF LINGUISTIC PHILOSOPHY 76 (1965).

But even beyond the variability of contexts infusing their nuances into the meaning of words is the contribution of *imagined* contexts. Lawyers and judges are very familiar with *hypotheticals* — imagined fact situations that "test" (so to speak) the reasonableness of the applicability of a given rule. Wittgenstein has this to say about hypotheticals:

> If you imagine certain facts otherwise, describe them otherwise, than the way they are, then you can no longer imagine the application of certain concepts, because the rules for their application have no analogue in the new circumstances. So what I am saying comes to *this*: A law is given for human beings and a jurisprudent may well be capable of drawing consequences for any case that ordinarily comes his way; thus the law evidently has its use, makes sense. Nevertheless its validity presupposes all sorts of things, and if the being that he is to judge is quite deviant from ordinary human beings, then e.g. the decision whether he has done a deed with evil intent will become not difficult but (simply) impossible.[17]

At bottom, a word does not "have" a meaning. A word is only a puff of vibrating air, or ink marks on paper. Words *represent* — that is, they call to our minds — a cluster of contextually induced meanings, a cluster that is slightly different for every user of the language. Sometimes these slight differences are enough to block or frustrate communication; often they do not matter too much. All the Pragmatic Indeterminist can be sure of is that we can never be sure whether the different meanings attributed to the same words by speaker and listener will amount to enough of a difference to lead to disputes between them and, in some cases, lawsuits.

A. The "Nightmare" Alternative

Calling attention to the inherent indeterminacy of language leads many legal scholars, such as Professor Hegland, to cling to a hope that there is a plain meaning, out of fear that they will otherwise plunge into a nihilistic nightmare such as that described by Professor Hegland in his opening paragraphs.[18] Justice Scalia seems to prefer "plain meaning" as a way to keep lower courts under control (but of course he must *assume* that insisting on plain meaning can do this kind of job). None of this is to deny, as a practical matter, that in ordinary circumstances when nothing too much turns on it, indeterminate words can be used *as if* they are determinate. In this connection, I like Margaret Jane Radin's notion of the "trivial case":

> [J]udges will not look deeply into cases that are apparently trivial, such as cases involving only a small fine, unless a sore thumb catches the judge's attention and makes her think that something

17. L. WITTGENSTEIN, ZETTEL § 350 (1970). The passage is quoted in Bix, *H.L.A. Hart and the "Open Texture" of Language*, 10 LAW & PHIL. 51, 61 (1991).

18. Hegland, *supra* note 5, at 509.

> "extremely wrong" may lurk beneath the surface. [On the other hand] ... the very fact that the case involves the death penalty may preclude the psychological shortcut for the judge.[19]

The important point to note here is that a case is trivial or not depending on the consequences to the parties of an adverse decision. Whether an automobile went through a stop sign can be trivial if what is at stake is a potential fine of $25, or non-trivial if what is at stake is a tort case involving $250,000 in damages that turns on the possible "violation of statute" as supplying the negligence component. The motorist will not spend very much money or time to defend the traffic fine in traffic court (and neither will the state — traffic court is something like a busy production line). But the motorist will hire attorneys to defend against the tort action. Although the question in both cases is exactly the same — whether there was a "violation" of the stop sign — the interpretive question will be hotly contested only when the consequence is non-trivial.[20]

Thus, to take an actual example, suppose a stake worth millions of dollars turns on the meaning of the short and simple phrase "prior to December 31." Can nine justices of the Supreme Court be entrusted to interpret that phrase fairly when the highly contested case gets into their Court? In *United States v. Locke*,[21] the Lockes were working a mining claim on public lands that produced gravel and building materials valued at several million dollars. Congress in 1976 enacted legislation that required claimants initially to record their mining claims and then, each year, file a notice of intention to hold the claim "prior to December 31." After initially recording their claim, the Lockes contacted the U.S. Bureau of Land Management's (BLM) office in Ely, Nevada, asking when they had to file their notice of intention to hold the claim. They were told to file the claim "on or before December 31, 1980." On December 31st, they hand-delivered their claim to the Reno office of the BLM. Afterwards they were told that they failed to file their claim "prior to December 31," and that therefore they forfeited their entire claim. The trial court reversed the forfeiture, but the Supreme Court reversed the trial court and held, in the words of Justice Stevens who dissented, that the Lockes "lost their entire livelihood for no practical reason."[22]

The Supreme Court majority fastened upon what it thought was the "plain language" and "ordinary meaning"[23] of the statute. That plain meaning

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19. *See* Radin, *Presumptive Positivism and Trivial Cases*, 14 HARV. J.L. & PUB. POL'Y 823, 833 (1991).

20. Some people confuse the "trivial" with the "easy" case. An "easy" case, as the term is used in the current legal literature, is one that is determinate as a matter of law. If a "trivial" case can be turned into a "non-trivial" case simply by virtue of the stakes that are involved, then there is no case that is is "trivial" per se. Similarly, there is no case that is "easy" per se. What seems to be an "easy" case is just a case which, for various reasons, no one wanted to go to a great deal of trouble to contest.

21. 471 U.S. 84 (1985).

22. *Id.* at 125 (Stevens, J., dissenting). Whether the BLM was estopped, by virtue of informing the Lockes that a December 31st filing was all right, is a question that was remanded to the trial court. However, some Justices expressed doubt as to whether administrative estoppel can work against the "plain meaning" of a statute.

23. *Id.* at 95. I regard the statutory construction notions of "plain meaning" and "ordinary meaning" as part of the formalist repertoire in those cases where the interpreter insists that context has nothing to do with the interpretation — that the indisputable meaning of a phrase jumps out at you to the exclusion of all other readings. On the other hand, a Pragmatic

apparently meant that it was incontrovertible to any reasonable person reading the text that the text meant *prior* to December 31st, i.e., on or before December 30th. The majority acknowledged that there was nothing in the legislative history to suggest why Congress chose December 30 over December 31, yet bolstered its plain meaning reading of the statute with the observation that "deadlines are inherently arbitrary."[24] Here we have a clear example of runaway formalism. In the back of the Court's mind is Hegland's nightmare: the world will crumble into chaos if plain statutory words don't mean exactly what they say! The Court's very ability to control lower-court decisionmaking will erode if the Court even once allows the camel's indeterminate nose to get under the rigid statutory tent.

What is astonishing about the Court's result is (to mix a metaphor) the fact that it is willing to cut off its nose to spite its face. The plain meaning of a phrase is the meaning that is communicated to a reasonably literate audience when it hears that phrase, and not what a grammarian comes up with by parsing the literal language. Recall Lon Fuller's remark "drop everything and come running."[25] The *ordinary meaning* of that phrase — the meaning that is intended and the meaning that is normally conveyed in that particular context — is to finish rescuing the baby from the well and then come running.[26] Suppose the person making the remark has already cautioned the housemaid, "do exactly what I say, no more and no less" — perhaps out of the common frustration that people will often misinterpret what is said. (The military version is the sergeant instructing his troops, "Don't *think* — just do what I tell you to do."). Yet what we really want when we issue an order about dropping everything is a reasonable housemaid who will not drop the baby back down the well — and not a grammarian literalist. Similarly, when Congress wants annual filings of mining claims, and when — as Justice Stevens pointed out — in all the oral arguments, written submissions, and deliberations in the Supreme Court "no one has suggested any rational basis for omitting just one day from the period in which an annual filing may be made,"[27] and where there is no reason to "presume that Congress deliberately created a trap for the unwary"[28]

Indeterminist can use the notion of "plain meaning" to signify the meaning that an interpretive community made up of reasonably well-informed persons would assign to the phrase. This interpretive community would not be asked to interpret the phrase in a vacuum; rather, they would be given some idea of the statutory context in which the phrase exists and the practical context to which the phrase is alleged to apply.

24. *Id.* at 94.

25. *See supra* text accompanying note 11.

26. Fuller, *supra* note 11, at 625. Every utterance has a context; I believe there is no such thing as a "plain meaning" that has no context. Consider, for example, the attempt to convey a plain meaning about humans to unknown inhabitants of other galaxies in the Pioneer 10 and Pioneer 11 space probes launched by the United States in the early 1970's. In another article I have indicated some of the gross misinterpretations that could arise from a painstaking attempt to write a precise message on the space probes. *See Judicial Interpretation*, *supra* note 8, at 566-68.

27. 471 U.S. at 123 (Stevens, J., dissenting).

28. *Id.* In his rejoinder, Professor Hegland accurately shows that I have reached my conclusions about the "justice" of the Lockes' claims abstracted from any context, and hence I have failed to follow my own prescription that cases cannot fairly be decided acontextually. Hegland, *Looking for Certainty in All the Wrong Places*, 33 ARIZ. L. REV. 577, 578-81 (1991). He has scored a telling point. In future reincarnations of my essay, if any, I will deal with his point in the text and thank him for making it.

by using the phrase "prior to December 31," why isn't the *plain meaning* of that phrase precisely the meaning that the BLM office told the Lockes, namely, "on or before December 31"? To say that the latter is *not* the plain meaning, as the Supreme Court majority does, would be like punishing the housemaid for not letting go of the baby and coming immediately.[29]

It should be noted that, in the *Locke* case, it is *not* the plain meaning of the phrase "prior to December 31" that *constrained* the majority of the Supreme Court. Rather, the indeterminacy in the case was precisely the determination of what *was* the plain meaning. If reasonable persons can reasonably differ as to what the plain meaning is, then the question of constraint can hardly come up.

The Supreme Court majority finds *philosophical support* for its position (I am using the emphasized phrase with intentional irony) in its remark that "deadlines are inherently arbitrary."[30] This is the mind-set of a petty bureaucrat — one who begins by conceding to you that the regulations are purely arbitrary, and then delights in enforcing them against you anyway because that's what the regulations require him to do. Of course, the regulations in themselves require no such thing. The phrase "prior to December 31" could

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There is, I concede, an inherent uncertainty even about "justice" decisions, because if we discover additional facts our conclusion about the justice of our decisions may well change. There is a French saying, "to know all is to forgive all." While I don't subscribe to it (for example, no psychobiography of Hitler is likely to change our moral opinions), there is a deep truth in what Professor Hegland says. Suppose, he says, that on further investigation it turns out that the Lockes are bad people, or that all private mining claims are unjust and hence defeating any of them even for an arbitrary reason is just. These are additional facts that take us out of the context of the *Locke* case as described in the Supreme Court's opinion. Yet, taking us out of the context of a given set of facts is *always* justified, I submit, if the move brings us closer to justice. But there will be cases (e.g. Hitler) where just amassing more facts for their own sake has negligible probability of changing our moral opinions.

Professor Hegland's argument, however, does not detract from my thesis, but rather supports it in an important way. Whenever we try to reduce a "justice" argument to a set of words — such as the words in the text above, relating to the Lockes' claim — we commit the same fallacy that law commits constantly. A "law" argument is one that is *contained* in a definable set of prescriptions — even if that set is as large as all the law books in a major law library (including case reports, statutes, administrative decisions, etc.). A "justice" argument, on the contrary, in principle cannot be reduced to any definable set of prescriptions.

But that does not mean that justice is *indeterminate*. Rather, "justice" considerations are always a matter of the diminishing importance of continued investigation. When we investigate the facts of a case, at some point we may get a sense that learning "more" about the facts will not change the justice of the matter. If we don't get that sense, then of course we continue to investigate the facts of the case. But if we do get such a sense, then the sheer economics of the matter — our decision not to commit additional resources to uncover additional information that we do not need — soon brings us to a halt. We are not "cut off" from further investigation the way the "law" cuts us off (as in, e.g., evidentiary rules at trial). But we are "cut off" by our own sense that it would be as waste of economic resources to pursue additional facts that don't seem to matter.

Professor Hegland would like to argue that my view of "justice" boils down to his view of "law." I do not know how expansive his own view of "law" is, but for me "justice" and "law" are two entirely different things which, nevertheless, overlap considerably in generally just societies such as the United States. For a diagrammatic view of this point, see D'Amato, *Rethinking Legal Education*, 74 MARQ. L. REV. 1, 20 (1990).

29. Justice Stevens points out, with pragmatic persuasiveness, that Congress is often too busy to do all of its work as carefully as it should, and that the phrase "prior to December 31" is at best the consequence of a legislative *accident*. *Id.* at 118-119 (Stevens, J., dissenting).

30. *Id.* at 94.

have been construed as "prior to the close of the business on December 31," a construction which would have allowed the Lockes' filing. Indeed, an additional argument not made by any of the Justices could begin by assuming if Congress really meant "prior to December 31" as denoting December 30th, and further if Congress really wanted to give the claimants a deadline of December 31, then it would have had to use the phrase "prior to January 1 of the following year." But *that* phrase would have been even more misleading (some might read "following year" as not the immediately next year but the year after that). Thus, the "plain meaning" of the statute, as read by the community of literate persons (including the BLM office and long-time mining claimants such as the Lockes), should understand Congress to have prescribed a deadline of the end of the year, that is, by the close of business on December 31st. The trouble with the term "plain meaning" is that although we can debate, as I've just done, what the plain meaning of a statute is, the term seems to deaden intellectual inquiry — as if the "answer" to a real-world problem is somehow contained plainly in the statutory message.

A consequence of insisting on plain meaning, illustrated by this example, is that it can induce a state of mind that thrives on arbitrariness and the automaticity of curved spikes in a parking lot. Only in those cases where the literal construction of a statute coincides with its reasonable and just interpretation in the context of a given case, can the plain meaning rule be harmless — and even then, *not* because the plain meaning led to the right result, but because the plain meaning happened to coincide with what we determined, by other means, to be the right result. When the plain meaning rule leads to absurd and unjust results — again, determined outside the four corners of the statutory language — we should think twice before postulating plain meaning as our initial axiom. Perhaps in the days of the Roman emperors, when the Caesars issued *deliberately absurd* pronouncements just to confuse, disorient, and entrap their subjects,[31] a judge construing their edicts had some reason to use literal and absurd formalism as a method of interpretation. (Even then, a judge might find *himself* being entrapped; after all, Caesar could come along and say, "I never meant anything so ridiculous; why do you attribute stupidity to my orders?"). But in any legal system that respects due process of law and elementary considerations of justice, formalism *per se* can lead to arbitrary if not self-defeating results. There is hardly a better acknowledgement of this possibility than the Court's own statement that "deadlines are inherently arbitrary." From such formalist premises come outrageous, absurd, and unjust judicial decisions.

Even the Supreme Court presumably would not regard its new December 30th deadline as *totally* arbitrary in the sense that *no conceivable fact situation* would ever allow a claimant to file a claim later than December 30th. For instance, suppose a claimant is driving to Reno on December 29th with the necessary papers to file in the BLM office, and her car is hijacked by officials from BLM who forcibly detain her for two days. She is then released, arrives in Reno on December 31st, and files her claim. "Of course," the Supreme Court might say, "there is always an implicit assumption that the government itself does not frustrate the ability of claimants to meet the deadline." But *why*

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31. And also to maximize their own sense of ultimate power. *See* 3 W. DURANT, CAESAR AND CHRIST (1944).

should this assumption be allowed?[32] There is nothing in the plain language of the rule that allows it. If the Court is willing to deviate from the plain language of the rule to allow an "impossibility" defense, why doesn't it construe the language of the rule to take into account other reasonable expectations, such as the reasonable expectation of the Lockes and the officials in the BLM office that "prior to December 31" meant "prior to the close of business on December 31"?

The answer stems from the illusion that the Supreme Court can control lower court decisions by insisting that lower courts must decide cases according to the plain meaning of statutes. This would be fine if there were such a thing as the single plain meaning of a given statute. The *Locke* case shows that there is no such single plain meaning. As Fred Rodell put it fifty years ago, no abstract legal phrase or rule can conceivably "contain the right key — or any key — to the solution of a concrete social or political or human problem."[33] Or as J.L. Austin once put it, "fact is richer than diction."[34] In brief, a legal rule may *guide* a judge to a presumptive outcome that comports with the general justice of a situation,[35] but at best this is a heuristic function of a rule[36] and certainly not a constraining function.

B. The Attempt to Have It Both Ways

Most law review articles published today contain an ad hoc mixture of plain meaning and indeterminacy analysis. The author typically shifts between the two without announcing the shift or even, perhaps, being aware of it. We find certain kinds of legal argumentation so "standard" that an article somehow doesn't "look right" unless it contains these arguments. When it suits an author's purpose to look to linguistic precision, formalism rears its head; when the author doesn't like the language of the statute or case, the author segues into reasons, rationalizations, policy arguments, or integrity theses. The uneasy shifting between textual literalness and indeterminacy in contemporary legal scholarship may someday appear to be the height of medievalism.

In defense of legal scholars who write such articles, it should be said that they are engaged in an enterprise of persuasion. Since some of their readers will be persuaded by formalist arguments, and some of their readers by

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32. We are so accustomed to overriding literal language when the opposing party tortiously interferes in the plaintiff's performance, that we tend to think that hypotheticals such as the one I've given in the text are weird and off-the-wall. But in the early days of the common law, an analogous situation arose. The literal law courts regarded a "contract" as the actual paper or parchment upon which the agreement was written. Without that piece of paper, the court would not enforce the agreement. Hence, if a plaintiff alleged that the defendant broke into the plaintiff's house and burned the contract, the court would rule for the defendant. We cannot ever *assume* that a court will take, or not take, background considerations into account. The rule in *Locke* literally prescribes the filing of the claim by a certain date. If the BLM *prevents* the Lockes from filing, that is a *background* consideration outside the language of the rule.

33. F. RODELL, WOE UNTO YOU, LAWYERS! 59 (1939).

34. J.L. AUSTIN, PHILOSOPHICAL PAPERS 195 (3d ed. 1979). I am indebted for this citation to Michael Moore, *Torture and the Balance of Evils*, 23 ISRAEL L. REV. 280, 286 (1989).

35. For a useful discussion of rules as presumptions, see Schauer, *supra* note 2, at 665-85. Professor Schauer does not cite my earlier discussion of "Rules and Principles as Presumptions," in JURISPRUDENCE, *supra* note 8, at 66-76.

36. This is spelled out in D'Amato, *supra* note 3, at 170-71.

indeterminacy arguments, the authors use both. But the losers are clarity and precision of thought.

II. OF PLAIN MEANING, NIT-PICKS, AND QUIBBLES

Many people dismiss the plain meaning versus indeterminacy debate as verbal babbling. To the contrary, the most fundamental issues in legal research, writing, and advocacy impinge upon this debate. *Every* case, in any jurisdiction in the world, at any point in history, presents a decision-maker with two immediate questions: (1) who should be awarded the decision?; and (2) what does the law say? The first of these questions is, on its face, a normative question. It *may or may not* be answered by the answer the decision-maker gives to the second question. There are three possibilities for the decision-maker: (a) to award the decision to the party that has the law on its side; (b) to award the decision to the party that ought to win even though the law is against that party; or (c) to "find" the law in such a way that it supports the decision in favor of the party that ought to win. Of these three possibilities, the second one, (b), hardly ever happens. When a jury does it, we call it "jury nullification." Judges don't do it unless they want to court reversal by a higher tribunal. So we are down to (a) and (c). The first, (a), is what judges usually *say* they are doing. After all, what else can they say? But (c), I contend, is what judges always and invariably *do*.[37]

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37. What about those cases where judges complain about the result they have to reach, saying that if they were free to decide the case they would decide one way but that the rules of law require them to decide the case the other way? Professor Hegland discusses such a case in Hegland, *Goodbye to Deconstruction*, 58 S. CAL. L. REV. 213 (1983). The case was *Mills v. Wyman*, 20 Mass. (3 Pick.) 207 (1825). The plaintiff, a stranger to a young man who had taken sick, helped him and gave him board and nursing care for fifteen days. The young man's father wrote to the plaintiff promising to pay him for all his expenses. Judge Parker held that there was no consideration for the father's promise and hence only his conscience, but not the law, should tell him to pay the plaintiff. Professor Hegland states that Judge Parker's personal predilection to find for the plaintiff was trumped by the law which — because there was no consideration — required a decision for the defendant. Stanley Fish has a different angle on this case. *See* S. FISH, *supra* note 6, at 10-14. Professor Fish believes that it was impossible for Judge Parker to have a personal predilection apart from his role as a judge. Judge Parker, according to Professor Fish, was in no sense "free" to see the facts any way he pleased;

> rather his very first look is informed (constrained) by the ways of thinking that now fill his consciousness as a result of his initiation into the professional community of jurists. That is to say, he looks with judicially informed eyes, eyes from whose perspective he cannot distance himself for a single second except to slip into another way of seeing, no less conventional, no less involuntary.

Id. at 12.

I disagree with both Professor Hegland and Professor Fish. I think Judge Parker *could* have decided for the plaintiff, that he had the free will to do so, but in fact he did not want to decide for the plaintiff. Judge Parker, at one point in his decision, said, "[b]ut if there was nothing paid or promised for [the defendant's promise to pay the expenses], the law, perhaps wisely, leaves the execution of it to the conscience of him who makes it." In my view, Judge Parker might have construed the law of consideration differently. But I think that Judge Parker *enjoyed* throwing the plaintiff out of court! (He may have identified with the defendant, a man of means; he may have been unsympathetic with the young man, who had "long left his father's family.").

But whatever our verdict on this particular case, I think that it is generally unwise to take a judge's word for it — in the judge's own written opinion — that the judge was deciding against his own wishes because the law constrained his decision. For it is all too easy for a judge to say this. It is a way of getting off the hook. It is a way of saying to the losing side, "Sorry, but I had no choice." What the theory of Pragmatic Indeterminacy tells us is that judges

If all the legal realists who have urged that law is a rationalization are correct, then law is plastic — not that law doesn't exist or have meaning, but that it is malleable. If a judge wants to reach a certain result badly enough, he can "find" law to support his position. Yet here comes the crunch point. People often raise the objection that Pragmatic Indeterminacy means that lawyers exploit the indeterminacy of law by the use of casuistic arguments and nit-picking so they can weasel their clients out of cases that their clients ought to lose.

Professor Hegland reaches this crunch point when he uses the moralistic word "repugnant" to summarize his objection to certain kinds of verbal legal tactics. He complains that "often lawyer cunning is employed" to make easy cases into hard ones "by mucking things up with nit-picks, quibbles and afterthoughts."[38] He takes my example of a shopper who refuses to pay for her groceries, and finds as a possible excuse "perhaps the grocer didn't have a current business license."[39] He concludes that this kind of lawyering practice is "repugnant" (and, by implication, so is the indeterminist argument of scholars who appear to encourage this kind of nit-picking).[40]

So now let us consider lawyers who "muck things up" with nit-picks, quibbles, and afterthoughts. Sometimes, depending upon the legal system one is in, that is the only honorable thing to do. If you were defending Jewish clients in Nazi Germany in the 1930's, or "colored" people in South Africa at any time between 1920 and the late 1980's, nit-picking and quibbling might be the only tactics that could shield them from the oppressive hand of the state. Excessive legalism can protect such people, because it uses the state's legal tactics against the state itself.

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always have a choice, and that we are being taken in by their rhetoric when they tell us otherwise. Legal scholars such as Professor Hegland appear to me to be all too ready to find "objective" evidence of why a judge rules a certain way contained in the judge's *own written opinion*! Surely one must be skeptical here, of all places. A judge writes an opinion to persuade us. In some (or even many) situations, the *most persuasive* thing the judge can say to the *losing* side is "sorry, I had no choice." Why, then, would Professor Hegland seize upon such a statement and consider it *evidence* that the judge decided the case contrary to the judge's own predilections?

38. Hegland, *supra* note 5, at 525.

39. *Id.* Professor Hegland chides me for sidestepping his example of the "easy case of the customer refusing to pay for her groceries, not because her children were starving but because she preferred to keep her money...." Hegland, *supra* note 28, at 580. I was not intentionally avoiding his case; rather, I thought it was so obvious an instance of uncertainty as not to require comment! But now, challenged to make such a comment, I offer the following possibilities. Suppose the customer is a minor (even pre-teenage minors can have children). She "prefers" to keep her money, even though she is economically well off; the grocer cannot sue her to get it back. Or, to take Professor Hegland's own example, suppose the grocer does not have a current business license. *Id.* at 580 n.9. In such a context, the uncertainty is apparent if we imagine two types of judges on the bench. The first type says to the customer "The license has nothing to do with it; you have to pay for the groceries you bought!" The second says, "Since the grocer was violating the law and operating without a license, this court will not participate in his scheme to sell groceries illegally, and hence I will not enforce his claim against you." Since we cannot know which type of judge we will draw, the result is surely indeterminate.

My general position is twofold: (1) *absent the context*, we can never be sure how judges will apply the words of a statute or legal rule, and (2) *the context can never be encapsulated entirely in words* — the real world is much richer than that, and words "run out" sooner or later. *See also* the general point I make *infra* note 144.

40. Hegland, *supra* note 5, at 525.

In unjust regimes, one can hardly make headway in court by inveighing against the injustice of the law. Suppose you had a client in Nazi Germany whose property was about to be confiscated by the state on the ground that the client has the requisite percentage of Jewish blood in her ancestry. If you fought her case in court by mounting a diatribe against the injustice of the Nuremberg laws, you would only succeed in convincing the judge that your client was indeed Jewish. Instead, the only legal tactic that has a chance of succeeding is to make a painstaking demonstration of the ancestral line of your client to show that she falls short of the legally prescribed definition of the percentage of Jewishness that would require the court to pronounce her a Jew. In the case of doubt as to certain ancestors, you would present formalistic legal arguments to the effect that the burden is on the state to prove Jewishness and not on your client to disprove it. If the judge has any inclination whatsoever to be sympathetic to your cause, you would be showing the judge a legally acceptable way of deciding in favor of your client — by a mere redefinition of the burden of proof. The notion of "burden of proof" is so much a creature of the law that, where moral stakes are high but cannot be openly admitted in court, the best place to tinker with the law is on the question of burden of proof. A Nazi judge might find for your client on that issue, because the judge can say that it is not proven that your client is a Jew. But there would be no hope for your client if you admitted that she is a Jew and attempted to persuade the court on grounds of morality or justice.

Formalists will tend to object to this line of attack as follows. They will say that Nazi Germany and the South Africa of up to a few years ago are "pathological regimes" that must be ruled out of any reasonable jurisprudence. However, I would argue that ruling out entire regimes is an ad hoc solution to getting rid of a troubling intellectual difficulty. Surely, at the least the dismissal of "pathological regimes" destroys any claim of such formalists that their jurisprudence is universally correct. But that is not the most telling line of attack against those who would dismiss entire regimes from their jurisprudence.

A more efficacious argument is the contention that *any* legal system is bound to have pockets of deep injustice. For the unfortunate people who are the victims of deep injustice in an otherwise just legal regime, the fact that the system is generally good (or the Dworkinian claim that the system as a whole has integrity) can sound like a cruel hoax.

My experience in dealing with real cases over a number of years convinces me that, from time to time, people are the victims of enormous injustice — not the kind of injustice that makes headlines, but private injustice.[41] It may be something as common as a divorce proceeding where the issues are alimony and child custody. Suppose the husband has beaten and physically abused the children, is interested only in getting the alimony reduced to zero, and has no interest in obtaining custody over the children. However, he and his lawyer mount a vigorous battle for child custody. The mother, fearing the physical safety of the children, is put in the position of having to give up her claim for alimony in return for exclusive custody over the children. Is there any doubt

41. For one conspicuous example, see D'Amato, *The Ultimate Injustice: When a Court Misstates the Facts*, 11 CARDOZO L. REV. 1313 (1990).

that an attorney for the mother, in a situation such as this (which, unfortunately, is quite common), should not resort to nit-picking and quibbling if those tactics could be useful in winning custody over the children for the mother and avoid bargaining away her claim for alimony?

Allow me to tell two "war stories" of my own. These will not simply add more examples to the one I just invented about child custody; rather, they will point up quite different facets of the lawyering problem that bothers Professor Hegland. They are truly war stories as they involve some experiences of mine concerning the Vietnam War as I was just starting out as a law professor. They take place in the United States, which is, I submit, a generally just society, so there is no jurisprudential excuse for a "pathological regime" in the following examples.

A. First War Story

In the course of researching and writing about what I considered an unconstitutional and immoral war, I developed an argument that distinguished between American soldiers who were volunteers and those who were drafted. No one else had focused on this particular distinction with regard to the Vietnam conflict or drawn the consequences that I tried to draw. Most anti-war activists and scholars concentrated on the fact that Congress did not "declare" war on Vietnam, and therefore regarded the President's action in sending troops to fight in that country as being contrary to the Constitution. Although I accepted that position, I focused on the draft resister. My argument was that the Chief Executive had no power to order soldiers who were inducted into the army to fight in Vietnam because the specific prerequisites of a little known clause of the Constitution (pertaining to the militia) had not been met.[42]

It was one thing for me to write up this theory, as I eventually did in a book jointly authored with Professor Robert M. O'Neil.[43] But far more significant would be the chance to argue the theory in court. Yet the courts of that

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42. My research showed that the "army" that Congress may "raise" under article I, section 8, clause 12 of the Constitution was considered, in 1789, to be a volunteer army. The word "army," in the dictionaries of that day, denoted a large group of volunteer soldiers. An "army" contrasted with the term "militia," used several times in the Constitution. The "militia" consisted of able-bodied men of the several states who were automatically part of the militia whether or not they wanted to be. During the Revolutionary War, the states contributed portions of their militia to General Washington, but the soldiers remained under the control of the states and received their pay from the states.

Cognizant of these differences, the Framers of the Constitution, in addition to giving the power to raise an army by spending funds for that purpose, gave Congress limited powers to call up the militia. These powers are in clause 15 of article 8. The militia can only be called up to "execute the laws ... suppress Insurrections and repel Invasions." All of this was in keeping with the plan of a national government of limited powers, as the Framers were well aware of the disastrous wars that autocratic kings had initiated in European countries.

My argument, therefore, was that the only way the national government could "draft" soldiers into the national army was to call up the militia; the national government was given no direct power of the draft under the Constitution. But with respect to the Vietnam war, Congress had passed no law that had to be "executed" by calling up the militia. (In addition, of course, there was no insurrection to suppress or invasion to repel.). Thus it was unconstitutional to draft someone to fight in the Vietnam War.

43. A. D'AMATO & R.M. O'NEIL, THE JUDICIARY AND VIETNAM 89-97 1972).

day threw out all lawsuits in which *plaintiffs* argued for the unconstitutionality of the war, on grounds of lack of standing, ripeness, or the political question doctrine.[44] What I needed was a *defendant* willing to raise the issue. For under the due process clause, so long as my unconstitutionality-of-the-draft argument was relevant to the disposition of the case, a court could not stop a defendant from raising the argument. I had no idea about where an appropriate defendant would come from.

One day a young couple showed up in my office at Northwestern Law School. The Smiths (not their real name) had come from Massachusetts. They had found out about me by "asking around," although they had not seen anything I had said or written. They wanted me to defend Mr. Smith, who had refused to take the symbolic step forward when he was inducted into the army. Mr. Smith believed, as I did, that the way the war was being conducted was immoral and he refused to participate in it.[45] I outlined to the Smiths the foregoing theory about unconstitutionality and said that if we were to interpose that theory as his sole defense the court would have to deal with it because he had a due process right to make any relevant defense.

We then went into a long talk about risks. I pointed out that if the court rejected my argument, then — although we could appeal the decision — the ultimate disposition of the case might be that Mr. Smith would spend five years in prison for the felony of refusing national service. He said that he wanted to take that chance, because there was also a chance that his case would result in the entire draft being declared unconstitutional, with concomitant public pressure to end the war right then and there. (This was in 1969.).

Mrs. Smith was skeptical. She asked if there was some other defense, so that everything would not hang on the novel constitutional argument. I asked if there were any procedural irregularities in his case. There was only a small technicality: the postcard informing him of the date of his physical examination arrived a day or two short of the ten-day statutory requirement. However, Mr. Smith had been informed of the date of the physical exam by telephone two weeks in advance, so the late arrival of the postcard was inconsequential.

We decided to use my unconstitutionality argument in Mr. Smith's defense to the felony indictment. Our strategic choice was whether or not to add the late-postcard argument. If we omitted it, we would force the court to consider the unconstitutionality argument — either to accept it and free Mr. Smith, or to reject it and send him to prison. The Smiths asked me to speculate on the various odds involved. I said that the unconstitutionality argument standing alone would be a long shot, but it would be spectacular if we won, for it would invalidate the Vietnam draft. But if we included the late-postcard argument, my guess was that the court would probably wish to avoid passing

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44. *Id.* at 53-73.

45. At the time I had written a lengthy essay, based on perhaps shaky sources, that the conduct of the war by the United States violated major war-crimes precepts. *See* D'Amato, Gould & Woods, *War Crimes and Vietnam: The "Nuremburg Defense" and the Military Service Resister*, 57 CALIF. L. REV. 1055 (1969), *reprinted in* 3 THE VIETNAM WAR AND INTERNATIONAL LAW 407 (R. Falk ed. 1972). Subsequent revelations showed that the sources were not only accurate, but that the real situation on the battlefield was worse than the sources had claimed.

upon the massive unconstitutionality brief that I would prepare. There was probably better than a fifty-fifty chance, I said, that the judge would dismiss the indictment against Mr. Smith on the basis of the technicality.

Mr. Smith was an idealist: either prison, or get the entire draft declared unconstitutional. He was in favor of omitting the late-postcard argument. Mrs. Smith looked dubious; she was afraid of the potential of a five-year prison term for her husband. Being equally divided, they looked to me for advice. I realized the empowerment of the moment: my "vote," even as an outsider, could very well impact decisively upon the lives of these young people.

My advice to the Smiths went pretty much as follows: "If only my own interests were at stake, I would like a chance at getting a court to declare the Vietnam draft unconstitutional. Even if the odds are low, the potential victory is so great as to justify the low odds. But as your attorney, I have to put my personal interest aside. I have to advise you to do what is best for you. With respect to the technical argument about the postcard, it's an argument that can be made. I can't really advise you to omit an argument that you can make if that argument itself has any chance of winning for you. So, as much as I'd like to take Mr. Smith's position and go all-out in this case, I suppose I come down on Mrs. Smith's side and say that the most responsible thing to advise you is to make both the unconstitutionality argument and the postcard argument."

They thanked me for my time and advice and said they would think it over. A few days later they called me from Boston and said they would like to use both arguments. I then sent them a 110-page brief on the unconstitutionality of the draft, and their local counsel incorporated it into Mr. Smith's defense along with the postcard argument. Later I received notice that the judge held for the defendant on the sole ground that the postcard had not arrived in time to give him ten days' notice of the physical examination. (I never again had occasion to interpose my unconstitutionality argument in a Vietnam-related case.).

This "war story" puts Professor Hegland's comment about nit-picking, quibbling, and afterthoughts in an unusual light. It was the judge in Massachusetts who was nit-picking. He found a technical irregularity that was so slight that today, under Rule 11, it might be deemed "frivolous." The judge *could* have faced the issue of the unconstitutionality of the draft head-on. If the judge believed that the war was immoral, then morally speaking he should not have avoided the unconstitutionality argument. There is nothing in the constitutional doctrine of avoidance of constitutional questions that requires a judge to reach for a *frivolous* argument to avoid interpreting the Constitution. Yet this is what the judge did. And I had expected him to do it. To be sure, I was to blame for including the postcard argument in the case at all; if I had advised the Smiths to leave it out, they probably would have gone along with me. But my basis for including the argument was to do everything I could legally do to defend Mr. Smith on the felony charge against him, and *not* that I liked the postcard argument or that I *wanted* the judge to choose it over the unconstitutionality argument. Yet, perhaps, I too was guilty of nit-picking.

B. Second War Story

There is no doubt that I was nit-picking in another Vietnam case. It was the kind of case that Professor Hegland would have called, at the time, "easy" — a lay-down case against me. Four young people had poured blood on the files in a military draft office in Chicago, and were arrested and convicted of the felony of conspiring to "hinder or interfere or attempt to do so in any way, by force or violence or otherwise, with the administration of [the Selective Service]."[46] They asked me to handle their appeal to the Seventh Circuit. I was formally assigned the case as a public defender.[47] They admitted that hindering or interfering with the Selective Service administration was exactly what they intended to do, and at the trial the jury believed them and convicted them. No lawyer in Chicago who was aware of the case gave them a probability higher than zero of getting the case reversed on constitutional grounds.[48] For one thing, it is hard to get any appellate court to declare a federal statute unconstitutional. It would have been doubly hard in the Seventh Circuit, known for its judicial conservatism — especially when the judges, like most government officials and like the overwhelming majority of the American public, fully supported the American military action in Vietnam.[49] In addition, the very section of the statute that I wanted to get declared unconstitutional had already passed constitutional muster in a previous case.[50] Moreover, Father Philip Berrigan and others had been convicted under the same statute for pouring blood on draft office files in Baltimore, Maryland, and their convictions were affirmed on appeal.[51] My clients, with noticeable lack of originality, repeated what Berrigan did. No one thought that there was any chance of obtaining a different judicial outcome.

Thus the case clearly would have fit Professor Hegland's definition of an easy case: "By an 'easy case,' I mean one that a vast majority of lawyers would agree is a clear winner, a clear loser, one which should never be filed, one which should be settled or pled."[52]

I worked night after night on the brief. What motivated me was the following. First, my four clients — John, Eileen, Mary Beth, and Thom, who called themselves "The Four of Us" — were motivated solely by their rampant idealism. I had asked them why they poured blood on the files in a draft office when the Berrigan brothers had already done the same thing in Baltimore (and were convicted of the felony of interfering with the Selective Service administration). Their simple and candid reply was they were not trying to be

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46. Military Selective Service Act, 50 U.S.C. app. § 462(a) (1988).

47. I received a standard fee of $1,000. For the number of hours I put in on the case, I was probably paid less than the minimum wage.

48. There were, perhaps, some procedural errors in the trial, and these were incorporated into the appeal. The Court of Appeals gave short shrift to these procedural claims. United States v. Baranski, 484 F.2d 556, 559 n.2, 570 n.9 (1973).

49. As things turned out, the panel of three judges that heard my case were reputed to be *the* most conservative judges on the court.

50. United States v. Farinas, 308 F. Supp. 459 (S.D. N.Y. 1969), *aff'd*, 448 F.2d 1334 (2d Cir. 1971), *cert. denied*, 405 U.S. 934 (1972).

51. United States v. Eberhardt, 417 F.2d 1009 (4th Cir. 1969), *cert. denied*, 397 U.S. 909 (1970).

52. Hegland, *supra* note 5, at 518.

original or creative, but that they felt that if they did not do their share to stop the immoral war in Vietnam, they could not expect anyone else in the country to do anything about it either. So they felt they had to do a moral act. They bought a gallon of animal blood at a slaughterhouse, visited a draft office, and informed the person in charge that they would like to pour blood on the files in the file cabinet. The person in charge (the only one in the office) asked them to come back the next day. They said they could not do so, but they were willing to wait while she called the police. She called the police, and "The Four of Us" proceeded to pour blood on a dozen or so recruitment files. Then they knelt and said prayers for the soldiers in Vietnam. The police came and arrested them. They were tried and convicted in district court.

Another reason I fought hard for them was that the two or three of them wanted to go to law school. A felony conviction would bar them.

But I had my own reasons as well. This was at a time, in the early 1970's, before the American public became disillusioned with the war in Vietnam. Not too many people then knew what I knew about the conduct of the war. I knew that American pilots over North Vietnam would wait until the noon hour when schoolchildren went out into the playground for recess, and then would drop their bombs on the playgrounds.[53] I knew that the internationally famous leprosarium in Quyuh Lap was the target of thirty-nine separate bombing missions, even though the Red Cross was displayed prominently on the roofs of the buildings.[54] Mary McCarthy reported seeing photographs of the "pandemonic scenes as doctors and attendants sought to carry lepers to safety on their backs and on stretchers."[55] One could hardly find a clearer nonmilitary target than a leprosarium; perhaps the American strategists exulted in the thought that by depriving the lepers of their sanitarium, the lepers would carry their disease to the general public in the area and thus further soften up Vietnamese resistance to our military intervention. Another favorite target of the American bombers was dikes and dams. American pilots were often commanded to drop their bombs according to their discretion (the commanding officers back at the base probably were afraid of war-crimes charges if they were more specific in their instructions). The pilots chose targets that would produce a psychological reward. According to one reporter:

> A bomb dropped into a leafy jungle produces no visible result.... A hit on a big hydroelectric dam is another matter.... The waters can be seen to pour out through the breach and drown out huge areas of farm land, and villages, in its path. The pilot who takes out a hydroelectric dam gets back home with a feeling of accomplishment.[56]

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53. By the end of 1966 — still early in the war — American aircraft had attacked 29 kindergartens, 301 secondary schools, 24 schools of the third degree, 10 primary schools, 20 technical schools, and three universities. AGAINST THE CRIME OF SILENCE: PROCEEDINGS OF THE RUSSELL INTERNATIONAL WAR CRIMES TRIBUNAL 312a-i (1968).

54. *Id.* at 181-84, 312.

55. M. MCCARTHY, HANOI 28 (1968).

56. Joseph Harsch, correspondent for the Christian Science Monitor, quoted in N. CHOMSKY, AMERICAN POWER AND THE NEW MANDARINS 14 (1969). An article in the magazine *Flying* describes a lucky young pilot who can napalm a village and then engage in

The extensive use of tear gas over South Vietnam villages (the villages that, as one soldier put it, "we have to destroy in order to make them free") had its normal effect only on healthy persons; as to those persons in the villages who were sick and bedridden, as to infants, and as to pregnant women, the tear gas was lethal.

Fortunately, as I write these words, the United States military has had a complete change of attitude in the wake of the Vietnam War. But back in the late 1960's and early 1970's, we were conducting a war in Vietnam with inhuman ferocity and brutality, and very few people seemed to care. Thus I felt a very strong moral compulsion to help "The Four of Us." If I hadn't felt that way — if it had been a routine case — I would not have engaged in the "nit-picking" and "quibbling" that Professor Hegland now dislikes.

I argued a technicality: that even though what my clients did unquestionably was designed to hinder and interfere with the administration of the Selective Service, and even though their deed had this very effect, nevertheless the words "or otherwise" in the statute on its face were overbroad and thus violated the first amendment. I went into this argument at length in my brief, and followed it with an even longer argument that, *as applied*, the statute deprived my clients of their own first amendment rights. The court, in its unanimous opinion, accepted the first of my arguments (facial invalidity) and thus had no need to venture into the second more complex argument.[57]

My "technical" arguments were thus motivated by my own conviction that my clients had "done their thing" to protest the Vietnam War and that I had to "do my thing" for them. Without this moral commitment, I would not have worked so hard on the case. But one can still ask whether getting the four convictions reversed was a failure of morality and a triumph of nit-picking, because after all they did hinder and interfere with the administration of the draft.

This question was put to me in the most dramatic way possible. I had prepared exhaustively for my very first appellate argument in the Seventh Circuit. I showed up in court, and the courtroom was packed with spectators — friends, relatives, and fellow anti-war activists of "The Four of Us." The judges marched in and sat down. I knew that I had a few minutes to launch into my opening statement before a judge might ask me a question.

Wrong. Contrary to everything I had heard about appellate argumentation, the chief judge asked me a question before I had a chance to open my mouth. "Professor!" he said in a commanding voice, "are you here to argue to this court that these four criminals should be allowed to *walk the street*?"

"Nonplussed" is hardly the word for my inner turmoil at that moment. In the space of a couple of seconds I saw the audience looking at me, the judges before me, my four young clients hanging on what I was about to say. What should I say? The picture of powerful oratory passed through my mind, on the order of: "Criminals? These young people aren't the criminals here. The

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strafing runs over the fleeing citizens. Quoted in CLERGY AND LAYMEN CONCERNED ABOUT VIETNAM, IN THE NAME OF AMERICA 205 (1968).

57. United States v. Baranski, 484 F.2d 556 (1973). Unaccountably, the government did not appeal the case to the United States Supreme Court.

criminals are the President of the United States and his lackeys who are conducting an undeclared war against the poor people of Vietnam in violation of all the Nuremberg principles and all the Geneva conventions. They are the criminals who should be in the dock. My clients are the voice of our conscience. They have put their livelihood at risk to dramatize the degradation of this immoral war."

The speech went through my mind like an express train. I could almost feel the standing applause that I would receive from the crowd. But instead an inner voice said, "Talk like a lawyer. You've got to persuade the judges, not the audience." The express train left the station as quickly as it came in.

And so what I found myself saying was an entirely different speech. I said, "Judge, sometimes we have to put up with criminals walking the street if they were convicted contrary to the United States Constitution. It's a price we have to pay. I may not like it any more than you, but no person, no matter how guilty, may be imprisoned under an unconstitutional statute."

I actually sensed the disappointment passing through the crowd, the way an actor does when the second act isn't going over very well. But the judges were listening, and I pressed on with my arguments. After the session, very few people came up to me on my way out of the courtroom. There was a general sense that I had been too low-key. My clients had faith in me, and one of them said, "I know you did the best job you could, but we really don't think we have any chance of beating this one." It was seven months later that I received in the mail a copy of the court's decision reversing the felony convictions on the ground that the statute was unconstitutional.

Despite my own belief that the Vietnam War was immoral, the judges did not share that belief. Their view was that of the majority of the American public at the time. Indeed, as part of the "establishment," the judges were probably active partisans of the war. In their published opinion they wrote that "irrespective of the sincerity with which [the four defendants] held their beliefs," their "invasion of a governmental office and the destruction of its records are intolerable and inexcusable in a civilized society."[58] And in a footnote at the end of the opinion, the court reminded the government that it could re-try the defendants under a newly drafted indictment.[59]

It is usually the case that, where the court's sense of morality differs from your own, your best argument is a highly technical one. Perhaps the judges can be convinced that "upholding the law" trumps even their own moral predilections. In the *Locke* case that I discussed at the beginning of this article,[60] the judges' sense that the mining claimants should not be deprived of their livelihood by a technicality was trumped by an effective presentation by the government that deadlines are inherently arbitrary and that "the law" requires that the phrase "prior to December 31" must be given its plain and arbitrary meaning. In the *Locke* case, good sense and generally accepted moral

58. *Id.* at 559.
59. *Id.* at 571 n.10. Fortunately for my clients, the prosecutors did not seek to re-indict them.
60. *See supra* text accompanying notes 21-24.

principles were both on the claimants' side of the case, and yet the technical nit-picking argument of the government persuaded a majority of the Supreme Court. I would oppose "nit-picking" in the context of the *Locke* case only because morality and good sense in that case were on a side opposite to the nit-picking side; but in other contexts (Nazi Germany, South Africa, the United States during the Vietnam War, etc.), nit-picking may well be on the side of morality and justice. If we substitute the word "formalism" for "nit-picking" here, my point becomes a general one. There is no such thing as a neutral, principled interpretation of any word or set of words; the only thing that counts is justice, and in the service of justice one is morally entitled to employ the devices of formalism.

Perhaps the broadest claim I can make — which I can't really demonstrate, but which is a sense I have after many years of studying and litigating law — is that *every* case involves elements of justice and nit-picking formalism. When formalism and justice are on the same side, we would only hope that the court will vote for that side. When formalism and justice are on opposite sides, we would only hope that the court will vote for the justice side, because in that case the side that relies on legalism is, in the language of economics, nothing more than a rent seeker.[61] But sometimes the court is tricked by formalism harnessed by the advocates of injustice, as the Supreme Court was in the *Locke* case.

III. COUNTERINTUITIVE CONSEQUENCES FOR LAW SUGGESTED BY QUANTUM THEORY

The analysis of legal indeterminacy naturally leads us to speculate about indeterminacy in other areas. One of the most intriguing is quantum physics. If the universe itself is indeterminate — as quantum physics holds — then perhaps it is not so strange after all that many things in it, especially human inventions such as law, are indeterminate. Our normal view of the physical world is one of things and non-things — solid objects and space, upon which we can make measurements. Yet quantum physics tells us that "space" is jam-packed with particles and virtual particles, and that "matter" is mostly space. Formalists trot out the model of the accuracy and precision of the "scientific method"[62] to support their claim of determinacy. Yet quantum physics says

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61. Professor Hegland, in his wonderfully self-deprecating way, comments:

> I have one smarty-pants point, what's the fuss? The distinction D'Amato makes between "law" and "justice" is important only if "law" is determinant, that is, only if the law forces judges to rule against justice. If law is as indeterminate as D'Amato claims, then judges have been deciding on their normative feelings all along and deconstructionism bites its tail.

Hegland, *supra* note 5, at 527.

There is of course nothing that forces judges to rule against justice, as well as nothing that forces them to rule in favor of justice. The *Locke* case is a full answer to Professor Hegland. In that case, a majority of the Supreme Court saw it the "law" way and a minority saw it the "justice" way. Neither side, we assume, was holding a gun to the head of the other side.

62. Hans Kelsen, for example, trumpeted the claim that his jurisprudence was totally scientific and objectively accurate. *See, e.g.*, H. KELSEN, THE PURE THEORY OF LAW 1 (M. Knight trans. 1967) (the aim of the "pure" theory of law "is to free the science of law from alien elements"). On the other hand, Fred Rodell said of the notion that law is an exact science: "No pretense was ever more absurd." F. RODELL, *supra* note 33, at 157. He added: "none of The

that we cannot achieve total accuracy and precision; the best we can do is to approximate quantum interactions at the most microscopic level. Hence the stuff that our universe is made of is inherently indeterminate, and there can never be a perfectly precise science of the universe.

Professor Hegland refers in his essay to quantum theory.[63] In a recent article, Lawrence Tribe has suggested the usefulness of the quantum analogy to legal indeterminacy.[64] I have referred to aspects of quantum theory in many articles over the past ten years, but given Professor Hegland's challenge, perhaps the time has come to discuss aspects of the subject at a slightly greater length. It is not only an inherently interesting subject, but it helpfully suggests a few ways of thinking that even a sympathetic observer like Professor Hegland may find counterintuitive.

Professor Hegland would like to encapsulate quantum theory into a box such that the processes inside the box can be indeterminate, but that outside the box the world remains comfortably determinate. This is the same mental manipulation that the majority of legal scholars engage in today, when they say, along with Professor Ken Kress, that there is "some" indeterminacy in the law but there is also a great deal of determinacy. Professor Kress calls his position "moderate indeterminacy"; he is willing to concede indeterminacy in some areas (without, in my view, defining or even being able to define what areas he is talking about), but he can conveniently put all the indeterminacy aside and get down to formalism when it suits the convenience of the moment.[65]

Here is how Professor Hegland puts it:

> Importantly, however, quantum theory does not assert that the laws of the physical universe are indeterminate (or that they do not exist); the claim is *not* that particles move helter skelter. While we cannot predict a precise location, we can predict a range of locations. Let's be clear: it would violate the laws of the physical universe if our particle suddenly showed up in Duluth (as it would be a clear violation of law if a judge, facing a tough evidentiary ruling, decided it by ordering the defendant's summary execution.).[66]

Just about every assertion in this excerpt is clearly and demonstrably wrong. I wonder whether Professor Hegland will revise his views of inde-

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Law's answers to problems is preordained, precise, or inevitable; and that it is indeed the lawyers, with their dreary double-talk, and not The Law, that mass of ambiguous abstractions, that run the show. Even if The Law still be considered a big machine that gives automatic answers to legally-worded questions, it is the lawyers and the lawyer-judges who phrase the questions and decide which buttons to push." *Id.* at 158-59.

63. Hegland, *supra* note 5, at 517-18.

64. *See, e.g.*, Tribe, *The Curvature of Constitutional Space: What Lawyers can Learn from Modern Physics*, 103 HARV. L. REV. 1 (1989). Even though Professor Tribe skims the most elementary surface from Einsteinian relativity and quantum theory, the use he makes of these analogies to law opens up profoundly important insights into the conceptual limitations of recent judicial decisions.

65. *See* Kress, *A Preface to Epistemological Indeterminacy*, 85 NW. U.L. REV. 134 (1990) [hereinafter *Epistemological Indeterminacy*]; Kress, *Legal Indeterminacy*, 77 CALIF. L. REV. 283 (1989).

66. Hegland, *supra* note 5, at 518 (footnote omitted) (emphasis in original).

terminacy if I am now successful in showing that what he regards as fundamentally uncontrovertible is, in fact, enormously indeterminate.

To begin with, no law of the physical universe would be violated if a quantum particle in our vicinity suddenly showed up in Duluth. Quite the opposite; there is a chance that some particles will actually show up in Duluth, according to the laws of quantum physics. Take the electrons whirling about the atoms in the fingernail of my right thumb. Most of these trillions upon trillions of electrons are describing orbits in or near my thumb. Some of them, however, are describing wider and more unusual orbits. Some are circling around the room in which I sit, and back into my fingernail; some are whirling around the city of Chicago and back into my fingernail; one or more are whirling in and through the city of Duluth and back here; a few are cycling around the planet Jupiter and back into my fingernail; and one or two may even be describing an orbit around a distant galaxy. This is the irreducible indeterminacy of quantum physics; there is no principle that contains or constrains electrons (or photons or neutrons or any other quantum particle). Some percentage of electrons will find themselves in "impossible" positions.[67] We can never "pin down" the location of these particles; Heisenberg's uncertainty principle is an expression of our inability to pin down their location.[68]

Professor Hegland is wrong in saying that we can predict a range of locations for quantum particles. I assume he means that this range is itself determinate.[69] But, in fact, the range itself must be expressed as a probability.[70]

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67. If there is a barrier "containing" a bunch of electrons, nevertheless "some of the electrons will be found on the wrong side of the potential barrier. They have, so to speak, 'passed through' the potential barrier. In fact, quantum mechanics predicts that the distance *D* will assume arbitrarily large values even for a fixed energy *e*." 1 H. PUTNAM, MATHEMATICS MATTER AND METHOD: PHILOSOPHICAL PAPERS 144 (2d ed. 1979).

68. There are two major confirmations of this principle of nonlocalizability of quantum particles. First, recent advances in the "tunnelling effect" of electrons has led to their use in advanced computer design; most electrons are channeled through a conduit, but some percentage of them unaccountably find themselves on the other side of the impenetrable object. Physicists refer to the ability of electrons to go through a classically impassable barrier as the "tunnelling effect," and this phenomenon has immense practical uses. *See* Leggett, *Low Temperature, Physics, Superconductivity and Superfluidity*, in THE NEW PHYSICS 268, 288 (P. Davies ed. 1989). Second, Stephen Hawking has found that black holes in space are not completely black as had previously been predicted, but rather emit particles and radiation producing a halo effect around the black hole. Hawking, *The Edge of Spacetime*, in THE NEW PHYSICS 61, 67; *see* S.W. HAWKING, A BRIEF HISTORY OF TIME: FROM THE BIG BANG TO BLACK HOLES 99-113 (1988) ("black holes ain't so black"). It had been previously thought that a black hole — the result of a star imploding because of gravitational collapse — would have such a powerful gravitational field that nothing could escape from it. Indeed, even light rays — photons — cannot escape from a black hole, because the gravity is so powerful that it will pull the light rays back in towards the black hole; hence, a black hole cannot ever be seen because no light ray can bounce off it into our eye. But if *everything* were collapsed inside the black hole, then Heisenberg's uncertainty principle would be violated, for we would be able finally to determine the exact location and momentum of quantum particles inside the black hole. Thus, Hawking concluded, the sheer indeterminacy of quantum particles — their inherent inability to be pinned down — accounts for their "violating" even the gravitational attraction of the black hole. Every black hole is surrounded by a halo of radiation, constituting the quantum particles that remain indeterminate even in the face of overwhelming gravitational force.

69. If they were not determinate, the rest of his argument (about no particles in Duluth) would not follow.

70. Quantum physicists have been able to discern different degrees of indeterminacy. *See* H. KRIPS, THE METAPHYSICS OF QUANTUM THEORY 35-38 (1987). Nevertheless, the

One electron in my fingernail *might* be circling a twin star in a distant galaxy, or it might not; I cannot prescribe the exact orbit that the electrons in my fingernail may be travelling. Nor is there an exact "range" in which the electron may roam, because there is a small but finite probability that it can be anywhere in the universe.

Perhaps the fact that is most difficult to accept about the micro-world is that our inability to prescribe the range of quantum particles is emphatically *not* a function of our scientific ignorance about electrons; rather, it is inherent in the nature of electrons. Electrons exemplify probability. The wave-amplitudes of Schrödinger's equations specifying the probabilities that an electron will be found at any given location do not constitute a measure of our ignorance of where the electron is, but rather constitute a description of the electron. The electron itself is "smeared out" (our language here has limitations) over a range of possibilities. As Max Born put it:

> Experiments show that the waves have objective reality just as much as the particles.... There seems to be only one possible way out of the dilemma; a way I have proposed, which is now generally accepted, namely, the *statistical interpretation* of wave mechanics. Briefly it is this: *the waves are waves of probability.* They determine the "supply" of the particles, that is, their distribution in space and time.[71]

The probability described by quantum theory is fundamentally unlike what we generally refer to as "probability." Our usual notion of "probability" is that it is a measure of our ignorance. Thus, when we flip a coin, the reason we assign a fifty-fifty probability to heads or to tails is that we do not know enough about the coin and the forces incident upon it. If we knew, for example, exactly how much energy the "flipping" imparted to the coin, if we could calibrate the local force of gravity and the wind factor, if we knew the exact elasticity of the table or floor upon which the coin will bounce before coming to rest, if we knew the microspecifications of the metal in the coin (e.g., the "heads" side might be slightly heavier than the "tails" side because of the metallic weight of the embossed picture on the "heads" side) — if we knew all these things, then we could predict with exactitude how the coin will come up. Hence, in this case, probability is a measure of our ignorance. The same is true for most examples of probability that we can imagine — weather forecasts, the stock market, etc. Theoretically, if we had all the relevant information, we should be able to predict these occurrences with certainty. But what is amazing about quantum theory is that its probability function is not a function of our ignorance. Rather, it is built in to the quantum particles themselves. When we say that an electron has only a probability of now being in the vicinity of my fingernail, and another probability of now being in Duluth, then — somehow, in a way we can't visualize — the actual electron itself is partly in the vicinity of my fingernail and partly in Duluth. The electron is unlike any "particle"

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differences are only probabilistic *approximations*. *Cf.* 2 THE PROBABILISTIC REVOLUTION 373-436 (L. Kruger, G. Gigerenzer & M.S. Morgan eds. 1990).

71. M. BORN, THE RESTLESS UNIVERSE 157 (1936). *See* Cartwright, *Max Born and the Reality of Quantum Probabilities*, in THE PROBABILISTIC REVOLUTION, *supra* note 70, at 409.

that we can see; rather it is "smeared out" over the range of its probability function (a range which is itself probabilistic and indeterminate!).

Professor Hegland's claim that "quantum theory does not assert that the laws of the physical universe are indeterminate"[72] reflects a different fallacy. To begin with, there is no such thing as a "law" of the universe; the universe is simply out there, and we invent "laws" and other formulations to explain to ourselves what the universe is doing. It is arrogant to suppose that once we have invented a physical "law," the universe must proceed to obey it! Indeed, the history of science has shown that the universe has proceeded to disobey every invented law. To take the most conspicuous example, Newton's laws were thought for a time to be immutable, but we now know that this ostensible immutability was purchased at the price of ignoring minor "errors" in calculation. When the perihelion[73] of the planet Mercury was found to advance each year by an amount that Newton's theory did not predict, scientists simply passed off the difference as "measurement error." But then Einstein came along and constructed an entire theory (his General Theory of Relativity) on this and other "measurement errors." Under Einstein's theories, there is no measurement error in the perihelion of Mercury;[74] rather, it is a calculable function of warped space-time in the vicinity of that planet. Yet even Einstein's theory does not *exactly* fit the measurements of the perihelion, although the fit is far closer than allowed by Newton's theory. Thus Einstein's theory may itself be revised by a more comprehensive theory that awaits discovery.

More fundamentally, the "laws" of physics — like rules of law in a legal system[75] — are ultimately tautological. For instance, Newton postulated a gravitational "force" that accounts for the orbit of the moon around the earth. Well and good, but what is a "force"? And how can it act at a distance? Einstein substituted the notion of "field" for Newton's "force." In Einstein's general relativity, the earth does not "attract" the moon; rather, spacetime around the earth is warped, and the moon simply follows the path of least resistance in this warped spacetime. Such a path happens to be circular around the earth.[76] But note: Einstein's warped spacetime itself does not "explain" gravitational attraction any more than Newton's "force" explained it. It just substitutes a more modern theory for an old one. Although the idea of "warped spacetime" may provide a heuristic for fruitful inquiry — more than the idea

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72. Hegland, *supra* note 5 at 518.

73. The perihelion is the point of closest approach between Mercury and the sun.

74. In Einstein's words, "Not only should Mercury travel around the sun, but the ellipse which it describes should rotate very slowly, relative to the co-ordinate system connected with the sun. The rotation of the ellipse expresses the new effect of the general relativity theory." A. EINSTEIN & L. INFELD, THE EVOLUTION OF PHYSICS 253 (1938).

75. Any rule of law is only satisfied exactly by a set of words formulated in conformity with the rule. As soon as we attempt to "apply" the rule to the real world, we find that it cannot "fit" exactly. The myriad facts and related facts of the real world cannot exactly exemplify a rule, even though a rule may be a convenient shorthand for highlighting those aspects of the facts that our minds for the moment wish to assimilate.

76. It was really Herman Weyl, preceding Einstein, who came up with the key observation in this connection. Weyl indicated that all space was warped in the vicinity of massive bodies, and that the massive bodies themselves *constituted evidence of extreme warping.* Matter, in this view, is simply highly enfolded space. *See* H. WEYL, SPACE-TIME-MATTER (1922).

of "force" — it is not, and cannot be, explanatory of why the moon orbits the earth.[77]

But are there not some laws that nature always obeys — that have no counter-examples? Consider the Darwinian notion of "survival of the fittest." This is clearly a law for which there appear to be no counter-examples. But does it tell us anything about nature? No; all it tells us is that we *define* the "fittest" as the animals and plants that happen to survive. Perhaps some of the now defunct animals were more "fit" than the ones around today — for example, the dinosaurs. Nevertheless, when they fail to survive, we say that they are not the fittest. Hence, "fittest" is simply a rationalization that we apply to what we see, and not a "law." Darwin's theory, restated, is simply "survival of the survivors." The analogue of Darwin's theory in recent legal scholarship is the notion that the common law is "efficient." Since the only way we can identify which common law doctrines are "efficient" is is to identify which ones have survived, the same circular process is at work. Or consider another universally acclaimed theory, the "law of gravity." So far, except for black holes, we do not have a non-example of gravity. But the black holes theory of Stephen Hawking should give us pause; it says that as soon as we find a theory more basic than gravity, gravity is trumped. What is to prevent the discovery someday of an antigravity device? If such a device were invented or found, then another "exception" would be added to the "law" of gravity.

It is the same thing, invariably, in the laws that lawyers deal with. A law is a good law unless and until an exception comes along. Then we graft the exception onto the law. But we didn't know it was an exception until the exception arose; that is, the original drafters of the law (assuming it was a statute) did not contemplate the exception.[78] I would argue that there is something tautological in the notion of an "exception" to a rule. How do we know, for instance, that killing is murder *except* in self-defense? Why don't we instead define murder as "non-self-defensed killing"? Exceptions are really *part* of the rule — the part we didn't think of when formulating the rule in the first place. Pragmatic Indeterminacy holds that we can *never* specify *all* the "exceptions" that may arise under any given rule. If we add to this observation

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77. For readers who want a technical but superb analysis of the relativity of new theories, see M. FRIEDMAN, FOUNDATIONS OF SPACE-TIME THEORIES: RELATIVISTIC PHYSICS AND PHILOSOPHY OF SCIENCE (1983). The question comes down to covariance versus invariance. Associated with Newtonian mechanics is the Galilean group; associated with Einstein's special relativity is the Lorenz group; associated with Einstein's general relativity is "a much larger group consisting of all admissible (one-one and sufficiently continuous) transformations." *Id.* at 46. As we go further into theory, previous assumptions are discarded but new assumptions are invariably made. Thus Einstein's special theory of relativity held that straight-line motion (Gallilean) could not be detected between systems. But Einstein's general theory of relativity said that accelerated motion is detectable in and of itself; hence there is a time-travel difference between two systems, one of which travels in unaccelerated and the other in accelerated motion. *See also* H. REICHENBACH, THE PHILOSOPHY OF SPACE AND TIME (1958); MOTION AND TIME: SPACE AND MATTER (P.K. Machamer & R.G. Turnbull eds. 1976).

78. Sometimes they do, but don't know how to deal with it. For example, limited access highways used to have signs posted that prohibited travel by certain kinds of vehicles, such as bicycles, scooters, handcarts, etc. But the list would become so long as to be unreadable, since new kinds of motorized vehicles are being invented all the time. An unreadable and overly complex sign defeats its purpose.

the preceding one — that exceptions are really part of the original rule — then the Pragmatic Indeterminacy conclusion is that *no* rule can *ever* be fully stated!

In other words, no law that actually reflects the physical world (such as a law of physics or a law of the legal system) can be "determinate" in Professor Hegland's sense. Only if a law is tautological is it determinate; but in that case, it does not reflect the physical world — it only reflects a verbal formulation drafted so as to be in logical conformity with the law itself. One can find numerous examples of such verbal formulations in the "examples" given in all the volumes of the *Restatements* of the law. Every *Restatement* example that follows the "black-letter rule" is simply a *verbal statement* that is in logical conformity with the black-letter rule. The examples are not real-world cases; they are simply ordinary-letter rules exemplifying black-letter rules.

To get back to the last sentence of the quotation from Professor Hegland's article, he gives an example of a wholly determinate case: "it would be a clear violation of law if a judge, facing a tough evidentiary ruling, decided it by ordering the defendant's summary execution."[79]

I wish Professor Hegland had picked a different example, but he chose this one and I guess I'm stuck with it. All right, suppose I am arrested in a foreign country that is under a military dictatorship. My defense in court is that the police fabricated evidence against me for political reasons. I offer to produce evidence of this fabrication. A court-appointed attorney whispers in my ear, "Don't try it; plead guilty and they'll only imprison you for a maximum of two years." I protest and he says, "this judge cannot allow such evidence in his courtroom, as it would be highly embarrassing to the regime. If you try to introduce it, the judge may order your summary execution." I object (as Professor Hegland might): "But that would be a clear violation of law!" No, says the attorney: "there is indeed a rule of law passed last year by the military dictatorship, and fully promulgated, that gives extraordinary powers to judges, including the power of summary execution, in order to prevent the admission of evidence that would be seriously embarrassing to the government or upset the stability of the state."

Thus, I have constructed — albeit in a foreign country — a scenario that directly contradicts Professor Hegland's self-assured statement. He might object that he is only talking about the United States, and not pathological regimes. If he makes *that* objection, then he cannot be discussing general jurisprudence, but can only be addressing the particular legal system of one country at one point in its history. There is nothing in the rest of his article that suggests that what he is saying is valid only for the United States and only for the present time. Yet if Professor Hegland were to press me for a United States example, I would point out that some observers have suggested that Judge Irving Kaufman, the highly respected jurist of the Second Circuit, ordered the execution of Ethel Rosenberg partly because there was a *lack* of evidence against her of the capital crime of treason.[80]

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79. Hegland, *supra* note 5, at 518.

80. Julius and Ethel Rosenberg were indicted for conspiring to engage in espionage, not for treason. But Judge Kaufman encouraged the prosecution's trial statements that the defendants were guilty of treason, and in sentencing the Rosenbergs to death, Judge Kaufman called what they did "treason." There was no evidence against Ethel Rosenberg that would have

Professor Hegland still has not given us a single easy case. He has not refuted my demonstration that there are no easy cases. His attempt to find determinate laws in a discussion of quantum theory (of all things!) contains basic errors. Yet is there any chance that my reply has changed Professor Hegland's mind? Let us look more deeply into quantum physics.

A. Schrödinger's Cat

Into this interesting debate Professor Hegland drags in Schrödinger's cat: the cat in the fiendish box that either lives or dies depending upon whether a bit of radioactive material emits a particle. Schrödinger's cat is today an unsolved paradox of quantum theory, and hence it is worth examining for what it tells us about quantum theory and indeterminacy. Yet commentators who retail the story to the public in the proliferation of popularizations of physics that are being published (one of them is even entitled *In Search of Schrödinger's Cat*[81]) have often changed and mangled the original story. Few appear to have consulted the original paper of Erwin Schrödinger that appeared in 1935.[82] Here is how Schrödinger presented the tale:

> One can even set up quite ridiculous cases. A cat is penned up in a steel chamber, along with the following diabolical device (which must be secured against direct interference by the cat): in a Geiger counter there is a tiny bit of radioactive substance, *so* small, that *perhaps* in the course of one hour one of the atoms decays, but also, with equal probability, perhaps none; if it happens, the counter tube discharges and through a relay releases a hammer which shatters a small flask of hydrocyanic acid. If one has left this entire system to itself for an hour, one would say that the cat still lives *if* meanwhile no atom has decayed. The first atomic decay would have poisoned it. The Ψ-function of the entire system would express this by having in it the living and the dead cat (pardon the expression) mixed or smeared out in equal parts.
>
> It is typical of these cases that an indeterminacy originally restricted to the atomic domain becomes transformed into macroscopic indeterminacy, which can then be *resolved* by direct observation.[83]

The first thing a reader might say when encountering this tale is: "of course, the cat either died or is still living. When we look into the box, we find out which one it was." This point of view is called the "ignorance interpretation" of Schrödinger's cat. It says, in effect, that it is the observer's ignorance that is resolved by looking inside the box. It is no different from flipping a

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been sufficient to support an indictment for treason. *See, e.g.*, R. RADOSH & J. MILTON, THE ROSENBERG FILE: A SEARCH FOR THE TRUTH 284 (1983); Parrish, *Cold War Justice Revisited*, 1984 AM. B. FOUND. RES. J. 479, 484 (1984). *See also* W. SCHNEIR AND M. SCHNEIR, INVITATION TO AN INQUEST (1965). The Rosenbergs are the only persons in American history to have been executed for peacetime espionage.

81. J. GRIBBEN, IN SEARCH OF SCHRÖDINGER'S CAT (1984).

82. *See* Schrödinger, *The Present Situation in Quantum Mechanics: A Translation of Schrödinger's "Cat Paradox" Paper*, in QUANTUM THEORY AND MEASUREMENT 152 (J.A. Wheeler & W.H. Zurek eds. 1983).

83. *Id.* at 157 (emphasis in original).

penny and then hiding the result. If the coin has already been flipped, but bettors do not know how it has landed, they can assume that heads or tails are possible with equal probability. Even though the coin has already landed either heads or tails, one can still make a fair bet on the result because the bettor simply is ignorant as to the way the coin landed.[84]

But quantum theory rules out the "ignorance interpretation." Schrödinger's cat would not have become so famous on an analogy to a coin flip. Instead, what quantum theory tells us is that the cat is in reality in a superposition of states, ranging from live-cat to dead-cat to all states in between. Only when an observer looks into the box is there a "collapse of the wave function,"[85] and the observer thus sees either a live cat or a dead cat.

Some people have speculated that it is the observer who determines what state the cat is in. More than that, the observer, by the act of observation, changes the state of the universe. The physicist Abraham Pais said: "I recall that during one walk Einstein suddenly stopped, turned to me and asked whether I really believed that the moon exists only when I look at it."[86]

Professor Hegland seems to like this interpretation, because he uses the story of Schrödinger's cat to observe that "hard cases collaps[e] into easy cases when we act upon them."[87]

But along comes "Wigner's friend" and demolishes the theory. Take the following example, which builds upon Eugene P. Wigner's analysis.[88] Suppose Professor Wigner is the observer. He goes into a sealed laboratory, in which there is a box containing Schrödinger's cat. He looks inside the box. What does he see? We don't know until someone comes along and asks him. Thus, Wigner's friend decides to enter the laboratory and ask Professor Wigner whether the cat is alive or dead. At that very moment when Wigner's friend is about to open the door, Professor Wigner as well as the cat are in a state of superposition[89] — after all, no knowledge has been communicated by them to the outside world. Only when the friend opens the door and asks Professor Wigner about the cat is there a "collapse of the wave function" enabling us to determine, according to quantum theory, that the cat is alive or dead. Until then, the cat was in a mixed or "smeared" state (as Schrödinger had put it), and so, presumably, was Professor Wigner.

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84. *See* N. CARTWRIGHT, HOW THE LAWS OF PHYSICS LIE 198-201 (1983).

85. This means that out of all the possible "probability waves" describing a system, as soon as we observe the system only one of them materializes. *See* J. GRIBBIN, *supra* note 81, at 173.

86. *Frontispiece* to F.D. PEAT, EINSTEIN'S MOON (1990).

87. Hegland, *supra* note 5, at 519. Of course, he therefore admits that all cases are indeterminate while they are in progress (i.e., before a judge finally rules upon them). This is exactly my position. Moreover, it cannot be hedged the way Professor Hegland attempts to hedge it, in his quotation of D. ZOHAR, THE QUANTUM SELF (Hegland, *supra* note 5, at 519). Ms. Zohar simply has gotten her physics wrong.

88. *See* Wigner, *The Problem of Measurement*, in QUANTUM THEORY AND MEASUREMENT, *supra* note 82, at 324.

89. From the vantage point of Wigner's friend, everything in the laboratory is in a state of superposition including the cat. From Wigner's own viewpoint, he has resolved the question of whether the cat is alive or dead. The whole point of the "Wigner's friend" hypothesis is that we have arrived at a contradiction.

Thus the "Wigner's friend" theory leads to the conclusion that not only doesn't the moon exist until Einstein sees it, but Einstein doesn't exist until Abraham Pais sees him, and neither Einstein, Pais, or anyone else exists until you, the reader, look at all of them. Surely this is unsatisfactory if not illogical.[90]

Is there a simpler, more elegant theory to explain Schrödinger's cat? Hugh Everett in 1957 came up with the "many worlds" or "branching universe" theory as part of his Ph.D. work that he did under the supervision of John Wheeler.[91] I leave the details of Everett's strange theory to a footnote.[92] Let me suggest another theoretical approach. Consider how Ms. Zohar (as quoted by Professor Hegland) explains the collapse of the wave function: "In some strange way that nobody yet understands, [the cat] died precisely *because* we looked at him. Observation killed the cat."[93]

There is a hidden ambiguity in this quotation, which we can bring out by asking the question "*When* did the cat die?" All Ms. Zohar says is that the cat died "because" we looked at him, but she does not say *when.* To make the point clear, suppose we wait an hour before looking in the box.[94] Let us say that the cat died, if it died at all, between noon and one o'clock. We look into the box at two o'clock. Suppose we observe a dead cat. How does our looking into the box at two o'clock cause the death of the cat an hour earlier?

There are only two theoretical possibilities to account for "reverse cau-

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90. I can't resist adding that this Essay doesn't "exist" unless you, the reader, read it. However, there is a sense in which I think we would agree that this statement is indeed true.

91. THE MANY-WORLDS INTERPRETATION OF QUANTUM MECHANICS (B.S. DeWitt & N. Graham eds. 1973) (includes Everett's Ph.D. thesis).

92. *See id.* at 141-49. Everett said that the emission of the radioactive decay particle in Schrödinger's box causes the entire universe to split into two universes. In the first universe, the cat remains alive. In the second one, the cat dies. These two universes then continue to go on their merry individual ways, never interacting with each other. You and I are members of both branching universes. In one of them, when we look in the box the cat is dead. In the other, when we look in the box the cat is alive. But right here and now, I am only "aware" of my being in one of these branching universes. I don't know what my doppelgänger is doing in the other universe, except that I can predict that if in my universe the cat is dead, in my alter-ego's universe the cat is alive.

But atoms are decaying all the time. Billions of atoms in my body are decaying every minute, and throughout the universe, a trillion-trillion-trillion atoms decay each second. *Each* of these decay processes, according to Everett, starts a new branching universe in motion. Universes are proliferating wildly and in unimaginable numbers. On some of these universes, the Nazis won the Second World War. On others of them, we are living in the Confederate States of America, or even as a colony of the British Empire.

Everett's "many worlds" theory is elegant because it constitutes a full explanation of the "collapse of the wave function." Instead of the cat being alive or dead, the cat is both alive and dead. It is alive in one universe and dead in another. All quantum possibilities are actualized in parallel universes. In that sense it is the simplest "solution" to Schrödinger's cat paradox. But it achieves its simplicity at the cost of creating a multiplicity of universes. Everett's solution has been called "cheap on theory but expensive on universes."

93. Hegland, *supra* note 5. at 520 (quoting D. Zohar, THE QUANTUM SELF (1990) (emphasis in original)).

94. *Cf.* A. FINE, THE SHAKY GAME: EINSTEIN, REALISM AND THE QUANTUM THEORY 56 (1986) ("Even before we look, either the cat is alive or it is dead.").

sation."[95] First, a signal emanated from our eyes and proceeded to travel backwards in time until the point when, at some moment between noon and one o'clock, it interacts with the emission of the decayed atom, collapsing its wave function so that it releases the hammer that shatters the vial of poison that kills the cat. Second, the decayed atom at some moment between noon and one o'clock foresees the future, notices that we will be looking into the box at two o'clock, and thereupon its wave function collapses and it releases the hammer with the foreseeable consequences.

As to the first of these possibilities, physicists have speculated the existence of "tachyons" — particles that travel faster than light signals and therefore must be travelling backwards into time.[96] But there is no evidence whatsoever that "tachyons" exist, and therefore it is, under our present state of knowledge, a purely ad hoc theory.

The second possibility is actually the sounder of the two. Ever since Bell's inequality proof in 1964[97] which showed that the famous Einstein-Podolsky-Rosen theory of the incompleteness of quantum mechanics rested on a false assumption of locality,[98] and especially since the experiments of Alain Aspect in France that showed quantum mechanical correlations between Einstein-space separated proton-pairs,[99] there is some basis for speculating that elementary particles somehow "know" what is going to happen at a later stage in the experiment.[100] What is clear is that the particles behave in non-random fashion[101] "as if" they can anticipate what will happen to other particles at a later stage in the experiment.[102] And just a few months ago, an experiment was

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95. *Cf.* D. LEWIS, *The Paradoxes of Time Travel*, in 2 PHILOSOPHICAL PAPERS 67, 73 (1986).

96. Under Einstein's theory of special relativity, nothing can exceed the speed of light. As a particle approaches the speed of light, its normal time slows down. (For example, if you were travelling in a spaceship that came close to the speed of light, you would age more slowly. If your ship travelled at a speed almost equal to the speed of light, you would grow older so slowly that you could traverse from one end of the universe to the other and still only perceive that the trip took a few hours. It would in fact have taken you only a few hours because all your biological processes would have slowed down almost to the point of no-growth.). A photon of light itself, travelling at the speed of light, does not grow "older." Now suppose a particle, which we call a "tachyon," exceeds the speed of light. Theoretically, it grows younger. But growing younger is the equivalent, from the point of view of an observer of the tachyon, of seeing the particle moving backwards in time.

97. Bell, *On the Einstein Podolsky Rosen Paradox*, in QUANTUM THEORY AND MEASUREMENT, *supra* note 82, at 403.

98. *See* B. D'ESPAGNAT, IN SEARCH OF REALITY 57-62 (1983).

99. Dalibard, & Roger, *Aspect*, 49 PHYS. REV. LETT. 1804 (1982). The Aspect experiment utilized a polarized switch that changed polarization within time intervals of ten nanoseconds, which was one-fourth the time needed for a signal at the velocity of light to connect the two polarization analyzers. Hence there was no possibility that the polarized photons on Aspect's experiment "communicated" with each other by signalling across space. *See also* Shimony, *Conceptual Foundations of Quantum Mechanics*, in THE NEW PHYSICS, *supra* note 68, at 373, 386.

100. *See* M. REDHEAD, INCOMPLETENESS NONLOCALITY AND REALISM: A PROLEGOMENON TO THE PHILOSOPHY OF QUANTUM MECHANICS (1987).

101. The non-randomness is the contribution of Bell's inequality theorem.

102. *See* M. REDHEAD, *supra* note 100, at 115-16; A. RAE, QUANTUM PHYSICS: ILLUSION OR REALITY? 44-47 (1986).

reported in *Nature* that even a single particle (a photon in this case) can demonstrate prevision of itself or "spooky action at a distance."[103]

But what is true of particles at the subatomic level isn't necessarily true of cats or of you and me. Schrödinger's cat is only a conceptual experiment. If it were actually carried out, it would tell us nothing, because we would look in the box and either see a live cat or a dead cat. The superposition of states is dictated by quantum theory, and not by what we see. Recall that Schrödinger himself introduced his "cat" experiment by the sentence "One can even set up quite ridiculous cases." What he was showing by his thought experiment about cats — and what most popularizers of quantum mechanics have missed — is that quantum theory itself cannot be extrapolated to the macro-level world in which we live and breathe. If we *assume* that it can somehow be "connected up" to the real world — such as by way of the mechanism in the box described by Schrödinger — then absurd consequences follow. Moreover, to "explain" these absurd consequences we have to engage in even stranger theories.

The point of all this is that *theories don't work.* We simply cannot give a determinate explanation to quantum processes.[104] This is not to say that an individual theory fails to explain the quantum processes. Everett's many-worlds theory, for instance, "explains" those processes, but at the cost of creating a multiplicity of universes. The "tachyon" theory explains the collapse of the wave packet, but at the cost of assuming particles that travel faster than light and go backwards in time.

In legal scholarship I find exactly the same problem with theories of law. It is not that they fail to "explain" a line of cases, or the jurisprudence of the Supreme Court, but that they constitute only *one* explanation among an enormous number of candidate explanations.[105] In that respect, they solve nothing. They may take hold of our minds for a while, until someone comes along with a new theory that explodes the old one. But there is nothing in legal scholarship to indicate that these theories are progressing to the point of becoming, even in the aggregate, "better" explanations of case results. Indeed, as the proliferation of law journals and the increasing complexity of the articles therein indicate, our theories are in the aggregate becoming more complex and controversial.[106] At what point do they cease being useful?[107]

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103. Barnett, *Light and the single photon*, 350 NATURE 459 (11 April 1991).

104. "What, indeed, could it mean to 'derive' [from a theory] something about the physical world?... I wouldn't recognize a 'proof of a physical theory' if I saw one." R. GEROCH, GENERAL RELATIVITY FROM A TO B 183 (1978).

105. Even when we *agree* on a single theory, it does not determine the result of the very next case that appears to come within the theory. *See* D'Amato, *Can Any Legal Theory Constrain Any Judicial Decision?*, 43 U. MIAMI L. REV. 513 (1989).

106. In teaching a course on the first amendment recently, I had to decide what reading materials to assign to the students. Should I assign them books and essays about the first amendment? Or just cases? Or a mixture of both? I decided to opt just for the cases (including dissenting opinions). What we missed in terms of grand theorizing we gained in terms of specificity of analysis of the choices the lawyers made in structuring and arguing their clients' cases. All of these choices were made by attorneys under the umbrella of some theory or other of the first amendment. But a lawyer's choice of argument "collapses" all the theories into one unified approach which may, or may not, succeed with a court. You may look at it as a concretization of the theory, or you may alternatively view first amendment theorizing as an commentary on the strategic choices made by attorneys in structuring and arguing cases.

B. Prigogine's Paradigm

Do we really *need* quantum physics to give us a strong analogy to the indeterminacy of legal theorizing? What we *need* is something stronger than an analogy. We need a *heuristic* that will open our minds to something that may be counterintuitive. Is there anything in quantum physics that can serve as a heuristic for legal research? I believe there has been such a development. It has been suggested by Ilya Prigogine, winner of the Nobel Prize for Chemistry in 1977. His theory of nonequilibrium thermodynamics in effect says that quantum physics has been asking the wrong question.[108] I will develop an argument that, in legal studies, focusing on "law" similarly asks the wrong question.

To set the stage for Prigogine's insight, let me recapitulate the standard view of quantum physics as it resulted from the pioneering work of Schrödinger, Heisenberg, Born, De Broglie, Bohr, Dirac, and Einstein in the late 1920's. The commonality among these diverse scientists (who disagreed among themselves fundamentally about the implications of quantum theory) was a "building block" view of the universe. They all believed that the micro-world of quantum particles constituted the irreducible minimum of matter, and that large aggregate combinations of these particles constituted matter as we can see it and feel it. Certainly this view is standard today; nearly everyone will say that the world is built out of fundamental microscopic particles. The Greeks called these "atoms," but today we know that the microscopic particles within the atom (such as electrons, protons, neutrons, quarks, etc.) are far smaller than the atom; indeed, electrons circulating the nucleus of an atom are as far away proportionately from that nucleus as planets are from the sun in our solar system. But when we ask what these microscopic particles, sometimes called "quons," look like, we come across the stumbling block of Heisenberg's uncertainty principle.[109] These micro-particles can never be seen — only their traces (as in a Wilson cloud chamber) can be observed, and we must deduce the appearance of the particle from its traces in the macro-world.

Werner Heisenberg, repeating a truism of his times, saw this failure as one of language:

> It is not surprising that our language should be incapable of describing the processes occurring within the atoms, for, as has been remarked, it was invented to describe the experiences of daily life, and these consist only of processes involving exceedingly large numbers of atoms. Furthermore, it is very difficult to modify our language so that it will be able to describe these atomic processes, for words can only describe things of which we can form mental

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107. I would not be surprised if a statistical survey were to show that fewer law reviews are relied upon by judges today than they were twenty or thirty years ago. The survey would have to do this on a per-case average, of course. Although there are many more cases reported today than thirty years ago, there are also many more law journals, so the comparison is not necessarily unfair.

108. *See* I. PRIGOGINE, FROM BEING TO BECOMING (1980) [hereinafter FROM BEING TO BECOMING]; I. PRIGOGINE & I. STENGERS, ORDER OUT OF CHAOS (1984).

109. *See* W. HEISENBERG, THE PHYSICAL PRINCIPLES OF THE QUANTUM THEORY 20 (1930).

> pictures, and this ability, too, is a result of daily experience. Fortunately, mathematics is not subject to this limitation, and it has been possible to invent a mathematical scheme — the quantum theory — which seems entirely adequate for the treatment of atomic processes.[110]

The problem is that *although* mathematical schemes can be invented which enable the scientist to deal with atomic processes (including predicting, within ranges of probability, outcomes of given processes), the mathematical scheme itself cannot be translated into our language![111] And this is the root problem of Schrödinger's cat. Under Schrödinger's wave-amplitude theory of quantum processes, there are numerous probability waves only one of which is actualizable. When a measuring instrument from the macro-world (all our measuring instruments are macro-instruments, of course, or else we wouldn't be able to read them) interacts with a quantum process, there is a "collapse of the wave function" so that only one of the infinite number of probability waves is actualized. Schrödinger's equations involve what mathematicians call the "normalization" of limits to infinite systems in order to obtain a continuous spectrum.[112] Normalization is, essentially, tampering with unmanageable quantities (infinities) in order to produce non-discrete results that accord with laboratory observations. But in this very process of normalization is hidden assumptions that are weird if we attempt to describe the equations in ordinary language. What popularizers of quantum physics usually fail to realize is that notions such as "wave amplitudes," "collapse of the wave function," and so forth, are attempts by our imperfect language to summarize normalization assumptions in quantum mathematics. We are trying to put into words the *invented mathematical* formulas of quantum mechanics so that we can visualize the unvisualizable. It is only natural that what follows from these efforts are grotesque and paradoxical thought-experiments such as Schrödinger's cat.

Enter Ilya Prigogine. Maybe what is unvisualizable in the micro-world of quantum processes is itself unreal! Maybe our deep-rooted assumption that

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110. *Id.* at 11.

111. Of course, some mathematics can be translated into our language — e.g., ordinary arithmetic. But the mathematics that characterizes quantum processes is — like music — its own language. We don't know, in words, what it means.

Heisenberg used the algebra of matrices, sometimes called "linear algebra," to depict quantum processes. Linear algebra had been invented in the nineteenth century as a curiosity with no discernible practical use; Heisenberg was the first to pick it up and put it to an immensely practical use. Linear algebra, a self-consistent system of arithmetical processes, differs in fundamental ways from ordinary arithmetic. For example, when we multiply seven times nine, we get the same result as when we multiply nine times seven. In linear algebra, the *order* of the multiplicands changes the result, so that the product in these two cases would be different.

112. Prigogine supplies a useful analogy. Suppose a violinist draws her bow across a violin string; how do we describe the behavior of the string? What we *see* is a string that can conveniently be thought of as an ensemble of points operating in a wave-like harmony; we can represent this by an ordinary wave function. Suppose instead we were to plot the trajectories of all the points on the string. If we tried to prescribe the motion of all neighboring points independently, what we would produce are equations that would "lead to violent distortions of the string and to states of arbitrary high energy." FROM BEING TO BECOMING, *supra* note 108, at 254. The quantum-mechanical approach to micro-particles assumes the existence of those particles, and attempts to prescribe the motion of all neighboring particles independently. Then the resulting equations are normalized, smoothing out what would otherwise be arbitrarily high amplitudes and chaotic, discrete breaks in the system.

micro-particles when aggregated constitute the macro-world that we see, gets the whole story backward. Instead of the world that we see being an approximation of the quantum reality of the micro-world, Prigogine urges us to look at the matter the other way round.[113] Quantum physics, in his view, is an approximation of the reality that we encounter every day. Our everyday reality is one of events that change as time progresses; it is a world that is in the process of "becoming"; it is a world in which the second law of thermodynamics is inexorable. Quantum phenomena, on the other hand, are static, reversible processes. But these processes are only static and reversible if effectively decoupled from their interaction with the rest of the universe. This decoupling can never occur, except in theory. Thus, the fundamental units of the world for Prigogine are events and changes, rather than the objects that are doing the changing.

In short, we have been asking the wrong question. The question is not how we get from the quantum world to the macro-world (which is essentially the Shrödinger's cat question), for this question *assumes* that the quantum particles are the building blocks of the universe. Instead, Prigogine urges us to look at these theoretical quantum particles as an approximation of the events and changes that we see occurring in the real world. These particles are not "real"; indeed, they are not even "particles." No one knows what a quantum particle is or whether it exists (or even, in Bohm's and Feynman's sophisticated views, whether it darts in and out of existence[114]). Why, then, should we attempt to start with particles of whose existence we are uncertain and of whose behavior we can only approximate probabilistically, and extrapolate from them the world that we see? Instead, Prigogine suggests that we observe the irreversible thermodynamic processes in our world, and view quantum processes as mere approximations of this reality.

And finally we come down to what I believe is a useful, counterintuitive heuristic for law.[115] Is there a possibility that we have been looking at law backwards, in the same way that Prigogine suggests we have been looking at the quantum "building blocks" backwards?

There is no doubt that in teaching and writing about law, law professors and commentators view the laws they are writing about as "real." They focus on the rules of decision in cases, the rules contained in statutes and constitutions, the regulations of administrative agencies, the provisions of codes, the principles, policies, and standards that the rules and regulations seem to reflect, and so forth. Let us call all these things inclusively "law-words." I will analogize the law-word to a quantum particle. If a quantum particle is viewed as a fundamental building block of the universe, a law-word is viewed as a fundamental input into an authoritative decision within a legal system.

Under Prigogine's view, quantum "particles" are approximations to reality. They are *constructed* entities, an artifact of our invented mathematics to account for our speculation that somehow there must be irreducible building

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113. *See supra*, text accompanying note 108.

114. *See* D. BOHM, WHOLENESS AND THE IMPLICATE ORDER (1980); D. BOHM & F.D. PEAT, SCIENCE, ORDER, AND CREATIVITY (1987); R.P. FEYNMAN, QED: THE STRANGE THEORY OF LIGHT AND MATTER (1985).

115. Any heuristic is especially useful if it is counterintuitive.

blocks in the universe. The quantum entities are not real. Similarly, law-words may be viewed as in a state of virtual reality. They appear real enough when we see their traces on paper (the printer's ink that depicts the law-words). But Legal Realism tells us that an *opposite* set of law-words can be mustered in any case to support an equally persuasive judicial decision for the other side. Common knowledge tells us that this opposite set of law-words can readily be found in the briefs and arguments of opposing counsel. It follows that no matter how many law review articles are written, and no matter how many students are taught rules of law in law school, no conceivable set of law-words can predict with certainty a judicial decision *in a given case* because the judge is free to accept the rationale of the opposing party (who has also conveniently furnished the judge with an opposing rationale).[116] There can never be an "easy case" whose result is 100% predictable,[117] for there can always be some additional fact that makes a clear rule suddenly seem ambiguous or ill-fitting.

We may say, therefore, that "law" exists in a state of virtual reality. It can only be an approximation of what goes on in the real world. In order to be fully analytical about what judges do, we must go outside the box that is packed with law-words. We must look at our own language "from the outside" to the extent that such an intellectually difficult perspective is possible.

But at this point, legal study takes leave of quantum analogies. There is something going on in law that is totally foreign to quantum physics. It could be summed up in the word "normative," although I agree with Pierre Schlag, Richard Delgado, and others that "normativity," when encapsulated in value and policy statements, can be a dangerous illusion.[118] By "normative" I go back to Hume's dichotomy: that some statements describe the world (the "is" statements) and other statements urge us to do something (the "ought" statements), and that we cannot logically derive the latter from the former.[119]

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116. Our failure to predict with certainty how any individual decision can come out does not mean that we are disabled from using law-words to predict how aggregate decisions are likely to come out. It is quite possible for a lawyer to predict in general terms, e.g., "defendants tend to win this kind of obscenity prosecution four out of five times." *See* JURISPRUDENCE, *supra* note 8, at 23-28 (lawyers' predictions).

117. *See* D'Amato, *supra* note 3, at 161-71 ("there are no easy cases"). If Professor Hegland's arguments against my position on easy cases amount only to the proposition that some cases are easier than others, Hegland, *supra* note 5, at 517-21, I certainly agree with him. Traffic court has more "easy cases" than Tax Court. But any given traffic court case can be problematic and unpredictable. *See, e.g.*, A. D'AMATO, HOW TO UNDERSTAND THE LAW 74-75 (1989).

118. *See, e.g.*, Schlag, *Normativity and the Politics of Form*, 139 U. PA. L. REV. 801 (1991); Schlag, *Normative and Nowhere to Go*, 43 STAN. L. REV. 167 (1990); Delgado, *Norms and Normal Science: Toward a Critique of Normativity in Legal Thought*, 139 U. PA. L. REV. 933 (1991); Winter, *Contingency and Community in Normative Practice*, 139 U. PA. L. REV. 963 (1991). What I believe these writers have in common is a distaste for encapsulating a so-called normative principle into a statement of that principle, and then using that statement as a club in a lawsuit. This practice usually takes the form of insisting on a "policy argument" or on "values." *See, e.g.*, my early critique of the normative values approach of the Lasswell-McDougal school of jurisprudence, in A. D'AMATO, THE CONCEPT OF CUSTOM IN INTERNATIONAL LAW 218-20 (1971). In the text I am talking about an entirely different notion of normativity — the moral, non-descriptive notion that can only make sense to human beings. I have more fully described this sense of normativity in JURISPRUDENCE, *supra* note 8, and in D'Amato, *The Moral Dilemma of Positivism*, 20 VALPARAISO L. REV. 43 (1986).

119. D. HUME, A TREATISE OF HUMAN NATURE, bk. 1, § 1 (1739). Actually, the natural law tradition attempts to derive normative from descriptive statements, and in certain

When any judge or other decision maker is called upon to decide a case, she mentally asks the question of each contending party, "why *should* I decide this case in your favor?" But the answer to this question *cannot* be derived from the law-words in the case, because the law-words are simply descriptive statements (of statutes, of the decisions in prior cases, etc.) Something *in addition* to the law-words is needed to answer the question. A normative dimension is required, even if it is only the normative dimension that in this particular case the decision ought to be awarded according to the law-words (as the majority of the Supreme Court felt in the *Locke* case). Even this latter normative decision requires a sense of *why* the decision should go according to the law-words; in *Locke* it was because the Court accepted the premise that deadlines are inherently arbitrary. Most of the time, however, there is an underlying sense of justice in the judge's mind. That sense of justice *may be* (and in the United States today, for the most part, *is*) reflected in the law-words.[120] Even when the law-words deviate from the judge's sense of justice (and certainly one set of law-words will do so, i.e., the set of law-words furnished by counsel for the "unjust" side of the case), judges tend to "find" the appropriate law-words by the theories of justice that they have in their minds. These theories tend, unconsciously in some cases, to select from all the proffered law-words those law-words that seem appropriate to the judge, i.e., that satisfy (even in a subconscious way) her innate sense of the just ordering of things.

If I am right, then so long as law schools are in the persuasion business, they should teach the justice dimension as much as, or even more than, the law dimension.[121] Studying justice will also enhance a lawyer's ability to predict judicial decisions.[122] We cannot tell where a quantum particle will go by examining it. Neither can we tell where a legal rule will go in the next case in

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contexts the argument may be reasonable. I have tried to lay out a set of arguments of this type in the opinion of "Professor Tieu" in an imagined case. *See* D'Amato, *The Speluncean Explorers — Further Proceedings*, 32 STAN. L. REV. 467 (1980), *reprinted in* JURISPRUDENCE, *supra* note 8, at 304.

120. What we have to guard against is the tendency of many writers, Professor Hegland included, to assume that since the law-words of the current legal system so often track the underlying morality, the two are the same thing.

121. For a full statement of this view, see D'Amato, *supra* note 28. In his rejoinder, Professor Hegland challenges me to show how law schools can teach justice. Hegland, *supra* note 28, at 578 n.5. I hope that he, and others who are interested in this subject, will look at a new law school coursebook that has been ten years in the making and will be published shortly by Anderson: A. D'AMATO & A.J. JACOBSON, JUSTICE AND THE LEGAL SYSTEM (1992).

122. The thrust of Professor Hegland's essay is "what's all the fuss about?" The fuss is *not* about what judges do. Judges do what they do. It is up to us, as the self-appointed teachers of legal interpretation, to interpret what judges do. The "fuss" I am making is that *we* — the law professors and commentators — have been wrong. We write as if the law-words constrain the judges. We write criticisms of cases when we decide that the judges went astray and failed to be properly constrained by the law-words. And we have been backward and wrong. I include myself in this group, because in earlier years and in earlier writings I made the same fundamental error.

If we are going to be true to our calling, if we are going to "tell it like it is," if we are going to train new generations of law students to go out and do effective battle for clients who have been the unjust victims of other people or corporations — if we want to do these things, then it is our job to understand what is really going on when a judge decides a case. If we don't get *that* right, how can we be effective in what we teach?

which it arises by staring at the legal rule itself. In this respect, quantum physics offers a useful analogy to law.

IV. COUNTERINTUITIVE CONSEQUENCES OF LEGAL FORMALISM

So far I have taken the general position that insistence on plain meaning mistakenly impels us to find the answer to a problem within the four corners of a statute. The answer to any human problem — at least, the only answer that another human being sitting in judgment should give — is one that comports with justice. If the "plain meaning" of the statute comports with justice, there is no harm in calling it "plain meaning." But in all cases, justice in the real world is what law should actualize. Law should look outward to the real world of fact, and not inward to its own language. We should separate in our minds the existential fact of law-words and the normative dimension of what decision-makers ought to do in specific cases. When we do this, some counterintuitive consequences arise.

A. Increasing the Density of Rules Reduces their Predictability.

From the earliest codes of Hammurabi and the Romans, through the Napoleonic codes and the codification movement in the late nineteenth century in the United States, to the Internal Revenue Code and the Federal Register, people have thought that the more specific the rule, the more guidance there would be over public activities. Intuitively, specific commands channel public conduct in a way that general commands fail to channel that conduct. In recent years we have seen a proliferation of legal rules and regulations in all areas of law.

But have all these rules made any areas of conduct more secure, more predictable, more definite? In an article published in 1983, I took the following position:

> First ... a statute that seemed to mean one thing may be construed by a court to mean something different. Although the court will usually say that it is clarifying the statute, it does not always do so. It may create an exception, an exemption, a privilege; it might construe the rule narrowly to avoid constitutional problems, or broadly to give effect to an unnoticed legislative intent buried in the legislative history. The court's decision becomes a part of the meaning of the rule, so that the rule now becomes more complex — it is a statute plus a judicial decision. The more complex rule may invite further adjudication and more inventive subsequent construction by courts.
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> [Second] ... [p]ersons disadvantaged by existing rules may lobby to get new statutes passed that create exceptions, exemptions, or privileges, or get "special legislation" of other kinds. These also render the law more complex and convoluted: witness the innumerable tax provisions and regulations, many enacted at the behest of special interest groups, that clog up the Internal Revenue Code and sometimes render it internally inconsistent.

> [Third] ... [p]ersons "disadvantaged" by existing rules may modify their activity so that it falls in the cracks between existing rules or comes more ambiguously within any given rule. Thus, although the rules "on the books" may remain unchanged, if people change their conduct so that existing rules less clearly apply to what they may do, we can say that overall the law has become less certain.[123]

I would now add to these points[124] the following:

Fourth, as rules become more specific, they are harder to find and retrieve. Just look at the massive disorganization of the Federal Register. Even rules of civil and appellate procedure are notoriously disorganized; one cannot "look up" anything in them. Instead, a lawyer preparing a case must read *all* the rules, for fear of missing something relevant that was sandwiched into the wrong rule heading.

Fifth, the specificity of rules enhances the ambit of bureaucratic discretion. A bureaucrat, having had the luxury of looking at a bunch of rules, can cite any given rule to his advantage and to the disadvantage of the member of the public appearing before him. The member of the public, on the other hand, may not know that there are other rules binding on that bureaucrat that would change the entire legal picture.

Sixth, specificity of rules encourages harassment of the public. If you have ever been through an income tax audit, as I have, you will know what I am talking about. An Internal Revenue Agent will adopt a totally literal view of a particular statute or regulation, and even on occasion cheerfully admit that it makes absolutely no sense. There is, I think, a sort of bureaucratic delight in foisting irrationality onto the public and watching them squirm. The question often is not whether the taxpayer paid her taxes or fully reported all her income; rather, it is whether the taxpayer complied with a particular rule — whether or not compliance would change the amount of tax that is due.

Congress often revises the tax code, often with a view toward making it easier and more comprehensible. But complexity seems to build up inexorably. The new layers of complexity increase the Service's potential of harassing the taxpayer.[125] The net result is to make the entire corpus of rules less certain.

Finally, I would make a general philosophical point that I was not fully aware of when I wrote my article in 1983. It is that, no matter what the rule or its level of specificity, it still has to be applied to the real facts of the real

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123. D'Amato, *Legal Uncertainty*, 72 CALIF. L. REV. 1, 4-5 (1983).

124. The original article went on to prove a proposition that, so far, has been unrefuted in the literature, and is perhaps the most counterintuitive of all. It is that there is a structural asymmetry in the law that favors the defendant over the plaintiff with respect to the content of legal rules, such that, over time, defendants will have greater financial resources than plaintiffs to unravel the rules of law and make them less certain. *Id.* at 18-36.

125. One prominent tax attorney told me informally that the *purpose* of tax audits, in general, is to intimidate taxpayers. The idea is to scare all taxpayers away from taking full advantage of the tax provisions in their favor by letting it be known that when certain things are tried that the I.R.S. dislikes, there will be a long and painful audit. That the audit results in *no change* to the payable tax (as it did when I was audited a couple of years ago), is irrelevant. The revenue agents are not in the business of getting more tax revenues for the government, as this attorney told me, but rather are in the intimidation business.

world. Yet the amount of relevant facts is potentially infinite. So, no matter what level of generality the rule is couched in, the same potential for uncertainty in its application exists. Indeed, in many areas of the law, a general rule is more certain of application than a specific rule. For instance, a general notion of "defamation of character" serves fairly well in the law of libel and slander. But any attempt to *codify* what "defamation" is, would require hundreds of volumes of specific rules, and when the absurd project is completed, people would know *less* about whether a new utterance was defamatory than they know now.

The idea that conduct can be more precisely regulated by more refined rules is an idea that is so entrenched in the law (recall Cardozo's aphorism about judges filling in the interstices of law[126]), that for most people what I am saying here should be distinctly counterintuitive. Nevertheless I think I am right (or I wouldn't be saying it). All that the increasing density of legal rules does for us is to increase the appearance of legal control over our lives. If we *think* that detailed codes govern us more completely, then that is a good reason why, politically, such codes have arisen and are enacted. But whether the codes actually increase governmental control over our lives is an entirely separate question.

Justice Scalia believes that the more generally a rule is stated, the more predictable courts' decisions will become.[127] Since I have taken the position that increasing density of rules does not enhance the predictability of judicial (or other authoritative) decisions, perhaps I should accept the opposite point of view and agree with Justice Scalia that reducing the particularity of rules should enhance predictability. But I think that tinkering with rules in either direction does not in itself increase predictability. For one thing, what seems like a general rule in some contexts is a particular rule in others. Moreover, what seems like a very particular rule nevertheless can appear to cover an enormous number of cases that differ from each other in the same degree, in proportion to the particularity of the rule, as cases under a more general rule differ from each other proportionately to that rule.[128]

I think that what is really happening beneath the surface of the question of general versus particular rules is that general rules are more likely to track

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126. For a critical view of Cardozo's position, see D'Amato, *Judicial Legislation*, 1 CARDOZO L. REV. 63 (1979).

127. Scalia, *supra* note 1. I find nearly every sentence in Justice Scalia's article to be tautological. I know he now doesn't see it that way at all, but I hope that someday he will look back on his article and drop me a line saying either that I was right (or that I was crazy).

128. Recall the Dewey Decimal System for libraries. John Dewey divided up all the human knowledge of his time into ten categories, and then into subcategories. It was, for the first year or two, a very orderly system. Then something funny happened. Certain subcategories began to proliferate, while others atrophied. If you go into a library today that still uses the Dewey Decimal System, you will find hundreds of books in a sub-sub category carried out to the fourth and fifth decimal places, and only a couple of books in some more major categories carried out to one or two decimal places. But even today's refinements of the Dewey Decimal System are as subject to an equivalent explosion in the next several decades as they were in the last several decades. It is as hard today to identify *general* categories — despite all the particularity that the system seems to exemplify — as it was for Dewey when he invented the system. Consider, for example, the new category "software." We're not going to know what is general and what is particular until the new data comes in (i.e., until more books are published). But then it will be too late to retrodict the question of generality or particularity.

our felt conceptions of justice. It is for that reason, I believe, that we feel such rules are more useful in predicting judicial behavior. And we will be right, so long as we live in a generally just society.

B. Dissenting Opinions Will Become Less Frequent.

There is one knee-jerk reaction to legal indeterminacy that just about everyone makes. They say that the more indeterminate the law, the more conflicts there will be among judges and the more dissenting opinions will be filed. But this reaction is that of a formalist. For it is only a formalist who believes in the first place that legal rules control the outcomes of cases! With *that* belief in place, it is an easy step for the formalist to predict that the increasing acceptance of legal indeterminacy means that cases themselves will become more indeterminate and hence the expected frequency of judicial dissenting opinions will rise.

But if we discard the superstition that legal rules control the disposition of cases — that legal rules *constrain* judges[129] — then it is by no means obvious that judges will file more dissents if there is a general belief in the legal world that law is indeterminate. I would predict the exact opposite. Many dissents are filed today because dissenting judges disagree with the "legal reasoning" and formalist consequences of the majority on the panel. But if we were to *remove* this area of dissention from the bench — as a consequence of the dwindling of the formalist audience for judges' opinions — it follows that the frequency of dissenting opinions will go down. I have elsewhere defended this prediction in detail.[130]

What I have not claimed is that there is a reduction of *persuasiveness* in a regime of legal indeterminacy. Persuasive arguments can still be made, but the grounds of persuasion will shift from law-words to considerations of justice, equity, morality, and fairness. These considerations will encompass more of the *facts* of the given case. Law school training, if it is to train future lawyers in persuasiveness, should pay more attention to fact-finding, fact-structuring, and factual analogues to previous decisions.[131] Judges may still file dissenting opinions if they believe that their colleagues have omitted or failed to stress key facts in the case.[132]

In this connection, Ken Kress gets the matter partly wrong in his criticism of my position on dissenting opinions:

> [Suppose] there is a dissenting opinion by a deconstructionist judge who says to her fellow judges: "Your decision for the defendant is not compelled by the prior precedents and relevant statutes and constitutional provisions. As deconstructionist theory (as elaborated by Fish and D'Amato) shows conclusively, law permits

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129. *See Judicial Interpretation, supra* note 8.

130. *See* D'Amato, *Aspects of Deconstruction: Refuting Indeterminacy With One Bold Thought*, 85 NW. U.L. REV. 113 (1990); D'Amato, *supra* note 3, at 156-61.

131. *See* D'Amato, *supra* note 41, at 1343-45.

132. *See* D'Amato, *Self-Regulation of Judicial Misconduct Could Be Mis-Regulation*, 89 MICH. L. REV. 609, 619-23 (1990).

> us to decide for either litigant. For reasons X, Y, and Z, I prefer the plaintiff, and so should you."
>
> Behold the dilemma: Either deconstructionist theory persuades judges, or it does not. Thus, either this dissenting opinion can make a difference, or it — and therefore deconstructionist theory — cannot make a difference and cannot decrease the dissent rate.[133]

At the outset, Professor Kress appears to believe that a dissenting opinion is an attempt to persuade a judge's fellows. To the contrary, a dissenting opinion is conclusive evidence of a failure of persuasion. If the dissenting judge had been able to persuade her fellow judges, she would not be in the position of dissenting in the case at all.

But, of course, we have to take the larger view that a dissenting judge is writing not for the present case but for the ages. She hopes that someday her dissenting opinion, like Holmes' dissents in the free-speech cases after World War I, will be cited more than the majority opinions. In this broader view of the matter, I certainly agree that a judge may attempt to persuade future readers of her position.

But persuasion is not necessarily a matter of arguing about rules. Only formalists — and I think that, down deep, Professor Kress is a formalist — believe this. If we were living in the Mayan civilization 500 years ago, what would be *persuasive* would be the proper form of ritual incantations of prayers to the gods. The person who could recite these prayers with sufficient style and authority would actually be *persuasive* to his fellows. But that doesn't mean that ritual incantations are inherently explanatory of human events, any more than it means that statutes and rules and regulations are inherently explanatory of, or even directly applicable to, human events.[134]

What the judge could say, in Professor Kress's example, is "there is no reason in the law to choose either the defendant or the plaintiff, because each of them have presented to us elaborate briefs that are individually quite convincing as to the legal conclusiveness of their positions. We can either pick the plaintiff's brief or the defendant's brief,

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133. *See Epistemological Indeterminacy*, *supra* note 65, at 137. Professor Kress is right in pointing out that nonconstraining law may nevertheless influence or persuade a judge. *Id.* at 136. Clearly that is what happened in the *Locke* case in the Supreme Court, and in a multitude of other cases. *Id.*

134. Fred Rodell began his famous book with these words:

> In tribal times, there were the medicine-men. In the Middle Ages, there were the priests. Today there are the lawyers. For every age, a group of bright boys, learned in their trade and jealous of their learning, who blend technical competence with plain and fancy hocus-pocus to make themselves masters of their fellow men. For every age, a pseudo-intellectual autocracy, guarding the tricks of its trade from the uninitiated and running, after its own pattern, the civilization of its day.

F. RODELL, *supra* note 33, at 3.

My difference with Rodell is that I would not do away with lawyers. The most important protector of individual rights against the government is the lawyer. Societies lacking in lawyers are often oppressive, arbitrary, and totalitarian. When lawyers are absent, bureaucrats run people's lives, and the people have no champions to fight back.

What I find important is how we select and train persons who want to become lawyers.

not because I think it is marginally more persuasive than the plaintiff's, but because it would be right, equitable, fair and just to award this decision to the defendant. The facts in the case show that the defendant behaved honorably whereas the plaintiff is relying on legal rules to get an unfair edge over the defendant. When it comes down to the issue of justice versus construction of an elaborate, artificial case based on 'the law,' I would pick justice every time — especially since the defendant here has provided us with the legal argumentation in his brief that enables us to decide in favor of justice and yet appear to be deciding in favor of law." (Naturally, this degree of candor cannot be expected in any judicial opinion.).

Of course, as time goes on and legal indeterminacy is increasingly accepted (a pious hope on my part, undoubtedly), this elaborate rationale that I have assigned to Professor Kress's judge can wither away. There will be a decreasing need to pit "the law" against "justice" because "the law" will diminish in importance. There will be a decreasing need to couch justice decisions in the standard law-word format. The result, I think, will be that we will all be better served. Reality will begin to peek through the pages of the law reports, and we will have progressed one civilization-step farther from the rituals and incantations of priests

C. Legal Theories Do Not Constrain.

Legal theories undoubtedly bring a sense of order to an unruly world of fact. Law students love them. To a law student, a theory is an easy, quick way of encapsulating a case. If the case "stands for" a theory, then all the student needs to do is to memorize the theory, and skip the hard work of analyzing the case. All the better if there are 100 cases and one theory; learning the theory will obviate the need for reading and studying 100 cases.

Superficially, as the preceding example suggests, there are many more cases than there are theories. But appearances are deceiving. In fact, there are infinitely many more theories than there are cases. I'm not talking about irrelevant theories, but rather theories that precisely fit the facts. If you have 100 cases, there are billions and billions of theories that precisely fit, account for, "explain," and depict those cases. This result was proven by Skolem-Lowenheim in the early 1920's, and I have detailed it extensively elsewhere.[135] What legal scholars find hard to realize, after they have laboriously come up with a theory that they believe satisfactorily explains a line of cases, is that there is not just one counter-theory that invalidates their own and equally well fits all those cases, but that there are potentially millions of such theories.[136] And to open up the probabilities even more, when legal scholars say that one or

135. *See Judicial Interpretation*, *supra* note 8, at 597 n.96, 599 n.102; D'Amato, *supra* note 3, at 175-76. As Quine explains it, "Consider the nonempty universe *U* and any assortment of terms, all interpreted in that universe. Consider, further, the whole infinite totality of truths, known and unknown, that are expressible with help of those terms together with the truth functions and quantification over *U*. Then the Lowenheim-Skolem theorem assures us that there is a reinterpretation of the terms, in the universe of positive integers, that preserves the whole body of truths." W.V. QUINE, METHODS OF LOGIC 210 (4th ed. 1982).

136. *Cf.* Cover, *The Supreme Court, 1982 Term — Foreword:* Nomos *and Narrative*, 97 HARV. L. REV. 4, 16 (1983): "It is the problem of the multiplicity of meaning — the fact that

two cases in the group they are examining were "wrongly decided"[137] and thus can be *omitted* from the cases that the theory needs to explain, then the number of other possible theories that can explain those cases multiplies many times over. To fully appreciate the Skolem-Lowenheim point is to arrive at a stage of intellectual humility, where we have to concede that — no matter how much we dislike it — theory-building and theory-spinning give us only the appearance, but not the substance, of understanding, explaining, or constraining anything.

Of course, it is impossible to prove that every theory that has ever been articulated will fail to constrain a judge in any given case, because it would take forever to track down all those theories. A complicating factor is that judges sometimes *say* that they are constrained by a particular theory. They may even *believe* it. But for every theory that seems to be the "last word of explanation" of any subject, there are other theories waiting in the wings to be invented that explain the same subject radically differently.[138]

In a previous article I tried a taxonomic approach to a categorized variety of legal theories, showing in each case that judicial constraint was impossible under the theories themselves and any imaginable variants thereof.[139] What I said previously about the density of legal rules failing to increase predictability also applies to theories. No matter how refined you make a theory, you can get no closer to constraining a judge in the next case. Indeed, as you refine a theory, it loses its generality, and yet can never be made sufficiently particularistic to capture the exact facts of any new case. Thus, theory refinement is as hopeless an enterprise for the study of judicial decision-making as theory spinning.

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never only one but always many worlds are created by the too fertile forces of jurisgenesis — that leads at once to the imperial virtues and the imperial mode of world maintenance."

137. *See* D'Amato, *As Gregor Samsa Awoke One Morning from Uneasy Dreams He Found Himself Transformed into an Economic Analyst of Law*, 83 NW. U.L. REV. 1012, 1014 (1989).

138. Professor Hegland thinks that theories are psychological necessities. He cites Piaget's interesting case of two children who stole some apples telling an adult that the bridge they were crossing had broken down, tossing them into the creek to punish them for their theft. The adult asks, "how did the bridge know that the kids stole the apples?" The child responds, "the wind told it." PIAGET, THE MORAL DEVELOPMENT OF THE CHILD 253-62 (1965), cited by Hegland, *supra* note 5, at 512 n.13. What Piaget (and Hegland) leave out of this story is the adult's potential rejoinder. The adult could say, "Oh yeah, what makes you think the bridge would believe the wind? The wind is very shifty and unreliable, you know." Or to put the point more ponderously, we can concede the child his "theory," but it is easily demolished by a counter-theory, leaving the child with no better explanation of why the bridge broke down than his original moralistic "explanation."

I can't resist adding the adult mathematician's version of the bridge story, because it makes the point about theory even better. Two mathematicians are walking alongside a river, absorbed in the foundations of axiomatic set theory. One of them manages to make a convincing argument that that the entire theory of sets is inconsistent, and therefore the whole of mathematics is nonsense because it is founded on inconsistent premises. The other says, "you're right, but what I can't understand is that if you're right, why doesn't that bridge fall down?"

139. *See* D'Amato, *supra* note 105.

D. Predicting Outcomes According to Justice is More Reliable than Predicting Outcomes According to Law.

Perhaps the most counterintuitive consequence of legal formalism is that it leads to less predictability than if we were to predict judicial decisions on the basis of what seems fair and just. Most law professors, for example, seem to have a vested interest in the rules of law that they teach, and hence they think that their detailed knowledge of those rules is a better basis for predicting the law (or for criticizing it) than anything so vague and formless as justice.

Yet experienced practicing lawyers soon develop a sixth sense when a client comes in with a new story. One lawyer told me he applies the "smell" test — if the client's position doesn't "smell good," then even if a massive litigation is launched on the client's behalf, several years down the road the client is probably going to lose. Lawyers develop this sixth sense not because they become increasingly familiar with legal rules. Quite the opposite: a law student who has just graduated from law school and is preparing for the bar examination probably knows more legal rules at that moment than she will ever know later in life. (When I studied for the bar, my head was full of legal rules most of which I promptly forget ten minutes after I walked out of the bar examination room and into a different sort of bar.). Young attorneys are notoriously poor predictors of judicial decisions, undoubtedly because law school has debriefed them of their common sense. But that common sense returns after years of practice and an increasing skepticism about legal rules and the language of law.

Working on one complex litigation can give a young attorney a better sense of how the legal system works than studying any number of rules. Indeed, practical legal experience soon shows that relevant rules can always be looked up in the library, and therefore do not need to be memorized. The practical questions are how to use those rules in light of the facts of the case, and how to structure (as far as possible) the facts of the case in light of the rules, so as to manifest (or if necessary create) a sense of rightness and justice. The client's overall picture has to look just to the judge, or else there is a severe chance of losing the case despite an avalanche of rules that can be harnessed to bolster the client's position. Of course, sometimes the client's position isn't just, and then one has to hope that the judge is a die-hard formalist. In the *Locke* case the position of the United States was unjust. Therefore the government attempted to convince the Supreme Court that deadlines are inherently arbitrary, and hoped that the Court would elevate this presumption of arbitrariness over justice. In *Locke* the strategy worked, but it won't always work.

I am not claiming that legal rules are an alternative to justice. For example, some people have suggested that the traffic rule of driving on the right-hand side of the road is arbitrary and has nothing to do with justice. One could add that in Great Britain one drives on the left-hand side of the road without any feeling that justice is somehow diminished in that country.[140] However,

140. As in any statement, there is a counter-example. Nabokov, in his great novel *Lolita*, has a murderer who, after he has violated the most important law in the United States,

justice certainly requires that a driver obey whatever (arbitrary) rule is in place regarding the right-hand or left-hand side of the road. One who violates that rule would be recklessly endangering other drivers. What matters here is that there simply *be* a rule; whatever that rule is, justice requires adhering to it.

But look what happens if we take justice out of the picture.[141] If we simply say "you must drive on the right-hand side of the road at all times," that free-floating rule, in the absence of justice considerations, could lead to absurd results. Suppose a child darts out in front of a car, and the car cannot brake in time. If the driver swings over into the left lane to avoid the child, only a legal formalist would say that the driver "violated the rule"[142] and deserves a traffic ticket. A legal formalist would *have* to say that, because in the absence of justice considerations, the plain meaning of the statute is that the driver must drive on the right-hand side.[143] To be sure, a formalist can say that although the rule was violated, there was justification for violating it, and therefore a traffic ticket should not be given. But the problem is that once you focus on the violation of the rule, you can only hope that the judge will say "we'll excuse it this time." It is far preferable, in my opinion, to say that there is no violation of the rule at all when a motorist avoids a darting child, because any rule that would prima facie require a motorist to run over the child is nonsensical. The formalist notion that a good justification can always trump a rule was disproved in the *Locke* case. There, a majority of the Supreme Court so fixated upon the rule that justifications were ruled out of court.[144]

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decides, when all is lost, to do something *really* illegal. He gets in his car and intentionally speeds down the left-hand side of the road! V. NABOKOV, LOLITA (1955).

141. Legal positivism takes justice out of the picture. Positivism asserts that we ought to obey the commands of the sovereign authorities. Why should we obey those commands? Because they are the sovereign authorities. If we're in a democracy, then they are *our elected* sovereign authorities, but they are sovereign authorities nevertheless. They can command us to do unjust things, and positivism says we *should* obey those commands. I've always believed that this basic notion of positivism — that we *should* obey the sovereign's commands — is parasitic on genuine morality. In my view, there is *nothing about law whatsoever* that commands my moral allegiance to it. My moral allegiance is to justice, and to the law to the extent that it reflects, exemplifies, particularizes, and creates the conditions for justice.

142. A formalist might say that the driver should still be issued a traffic ticket for swerving into the left lane because there was a violation of the rule. The formalist may bolster this position by an economic-analysis-of-law argument: the driver has an incentive to swerve into the left lane even though that conduct will be punishable by a fine, in order to avoid the greater economic loss that would be incurred in a tort action on behalf of the dead child. But the problem with this sort of rationalization is that too many people in our (and in any) society will be sufficiently intimidated by the prospect of violating the law that they will intentionally run over the child. Legal formalism can make mental robots out of decent folk.

143. Because of past formalistic nonsense, some states now include in their traffic regulations a proviso that deviating from the right-hand lane is excusable under reasonable circumstances. If legal formalism weren't so rampant, such clauses (which render statutes less intelligible in the long run) would not be necessary.

144. I have now reached the point in this Essay where I can respond directly to Professor Hegland's criticism of my statement that "either side can *legitimately* win any individual case." Hegland, *supra* note 5, at 517 n.31 (quoting D'Amato, *supra* note 3, at 185 (emphasis in original)). By emphasizing the word "*legitimately*," I purposively drained from it any justice-meaning and simply used it in the sense of "legally." If we drain all justice considerations out of a given case, then either side can legally win the case. We know this because both sides have furnished legal briefs to the judge containing plausible legal rationales why they should win. Who is to say — absent all justice considerations — which side is more correct than the other? To be sure, if we are considering only hypothetical cases, such as the ubiquitous

It is our sense of the underlying justice considerations that gives us a feel for rules of the road as well as for any legal rules. We follow these rules because in most circumstances it would be unjust not to follow them. But when it *would* be unjust to follow a rule, then the courts should throw away literalness, "plain language," textualism, and all the other seductive trappings of formalism, and do what they are supposed to do: dispense justice to the parties.

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illustrations in the Restatements, then when the hypothetical situation tracks the given legal rule, consistency requires the Restatement result. I've never claimed that *hypothetical* cases aren't easy — only *real* ones. Real cases in real life are not "easy" because, even when both sides accept the *same controlling rule of law*, the judge can still "apply" that rule to either side by emphasizing the facts of the case in a manner that suggests that the rule applies to the side the judge picks to win. In the absence of justice considerations, selecting the facts and "applying" the law is ungoverned by any rule; it is in fact arbitrary.