LEAD ARTICLES

Legal Theory in Late Modernity

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The contemporary intellectual climate bears a striking resemblance to the milieu of epistemological and moral insecurity that characterized the dawn of Modernity. Rene Descartes, the so-called "father of modern philosophy," felt obliged, in the original epistemological gambit of modern philosophy, to subject the then-current orthodoxy to universal methodical doubt. Descartes felt driven to this procedure by the drastic deprecation of traditional beliefs that accompanied the mathematical, scientific, and social revolutions of the sixteenth and seventeenth centuries. The demise of the geocentric cosmology, the rise of a mechanistic ontology with its attendant undermining of teleological modes of explanation, and the emergence of primitive forms of bourgeois economic activity and social relations, resulted in a stunning shock to the traditional systems of cosmological, moral, social, and psychological understandings. Descartes' method of doubt was strategically to adopt the stance of the unremitting skeptic with an eye toward allaying epistemological anxiety by wiping the cognitive slate clean and identifying the unshakable foundations upon which a sturdy and reliable edifice of knowledge could be built. The subsequent history of mainstream philosophy has been a variation on this

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original Cartesian theme. The “problem of knowledge” has remained at the center of mainstream philosophy and bears the fingerprints of its Cartesian heritage: the core agenda is to refute the skeptic. Typical front-line work in this tradition consists in attempts (often exhibiting stunning technical virtuosity) to provide justification for, that is, criteria of, knowledge claims, as if these were under perpetual attack.

Since the early 1960s, the most widely discussed work in philosophy has taken the form of a massive assault aimed at deconstructing the dominant tradition. Since the tradition’s primary concern has been epistemological, the critics’ sharpest and most effective arrows have been aimed at its conception of knowledge. The most significant upshot of this critique has been a decisive refutation of the so-called correspondence theory of truth and the conception of language it presupposes. This Article offers an interpretation of the decline of the tradition, and focuses on those aspects of the development of our understanding of the philosophy of science that led to a rejection of the correspondence theory of truth and the formation of a postcorrespondence theory of language. I then discuss the impact of these developments on legal theory, especially legal Realism and Critical Legal Studies (“CLS”). Implicit in these legal heterodoxies are the traces of a larger theoretical revolution, concerning our cognitive relation to reality, fully as momentous as the scientific revolution associated with Copernicus, Galileo, Kepler, and Newton.

Parts I and II will discuss some of the most significant sociological, moral, and psychological consequences of the emergence of Western Modernity after the dissolution of traditional forms of life brought about in large part by the appearance of one of Modernity’s two cardinal institutions, capitalism. The themes I will develop concern the significance of an historically unprecedented form of detachment distinctive of Modernity and the decline of traditional forms of authority, rationality, and objectivity. Part III deals with Modernity’s other hallmark institution, modern science, and shows how fatal problems in its essentially empiricist epistemology have led to new, postempiricist and postmodern tendencies in the philosophy of language and the philosophy of science. Parts IV and V will discuss the work of Thomas Kuhn and, to a lesser extent, of Imre Lakatos and Willard van Orman Quine, as founding fathers of the new philosophy of science. Finally, Part VI introduces the revolutionary contributions of Quine and Ludwig Wittgenstein to the philosophy of language. If I am correct, CLS must be understood in the framework of the more fundamental and epochal shift in our understandings of language, knowledge, and science brought about by Kuhn, Quine, and Wittgenstein. So I shall argue in Part VI. CLS, I shall suggest, would transform our analysis of the law as fundamentally as Thomas Kuhn has transformed our understanding of science, and Quine and Wittgenstein have revolutionized our understanding of language. In the course of the Article I discuss, at criti-
cal junctures in the argument of Parts III-VI, particular court cases and pertinent issues in the philosophy of law.

I. FROM TRADITION TO MODERNITY: THE MORAL COSTS

Modernity is the cultural aura that surrounds a world radically transformed by the theory and practice of capitalism and modern science. These are not institutions among institutions. They provide the dual framework within which virtually all our other decisive theories and practices develop and are fitted in a manner appropriate to that framework. And the framework tends to be universal: if any population practices capitalism and modern science, or both, the normal requirements of economic and technological interaction and cooperation virtually guarantee the spread of these practices to other populations. As Marx understood, there is no stopping this dynamic. The entire world is Modernity's oyster.

Suffused through the modes of thought and action characteristic of capitalism is an ethos of individualism which is built into the very notion of a liberal culture. Liberalism is a sociopolitical system in which individual liberty or freedom is the primordial value. This sharply distinguishes liberal culture from premodern or traditional cultures in which individual liberty was viewed, when it was conceivable at all, as corrosive of the bonds of community. There is an important sense in which there were no individuals in traditional cultures. Imagine a world in which a person was not normally "free" to choose his or her place of residence, spouse, occupation, pattern of life, mode of dress, or religion. Our notion of an individual is so bound up with free choice in matters such as these that there is no recognizable sense in which someone lacking these entitlements can be called an individual. Premodern persons lived in a world in which the ebb and flow of everyday life were shaped by community-validated modes of behavior, thought, and feeling tied to one's relatively fixed place in a customary society. In such a social milieu persons described themselves not as individuals but as members of ranks, orders, and communities. Constitutive of the latter were a structured ensemble of roles, several of which were inhabited simultaneously by a given person. Indeed, "inhabited," suggesting as it does a merely external relation between person and role, is a poor choice of term in this context, for persons internalized and identified with the roles in which they were immersed. Thus, for example, a person so acculturated is—and this is the "is" of identity, not of mere predication, the difference between "John is a tenth-century Englishman"

and "John is 5 feet 4 inches tall"—a father, husband, Christian, carpenter, and a member of this local community, et al. A closer look at the psycho- and socio-logic of roles in traditional cultures reveals both the central role of detachment in modern cultures and the crisis of authority that attends the disintegration of traditional cultures.

To embody a role in a traditional culture is to entitle others to expect the appropriate behaviors under the relevant circumstances. For example, among the relevant circumstances related to the role of priest would be birth, marriage, and the desire to repent; the respective appropriate behaviors would be the administration of the sacraments of baptism, marriage, and penance. In traditional cultures roles tend to be conceived as functional requirements of social life. There is of course no anthropological sensibility in these cultures and therefore no theory of cultural relativism. Accordingly, the consensual validation of both the desirability of these roles and their behavioral requirements is seen not as merely conventional or culturally contingent but as "second nature." The teleology built into the notion of functionally required and socially anticipated behaviors is therefore seen as a species of natural teleology, the social counterpart to the physical teleology exhibited in the natural tendencies of acorns to become oak trees, tadpoles to become frogs, and free-falling material objects to seek their natural place at the center of the earth. This kind of comprehensive teleological cosmology provides neither the conceptual nor the sociological soil required to dig the sort of gulf between fact and value that is so characteristic of the terrain of Modernity. Just as an acorn must (ceteris paribus) become an oak tree and a tadpole must become a frog and a stone must fall toward the center of the earth, so a priest ought to administer sacraments and a general ought to win battles and a serf ought to serve his lord. This was a time before die Entzauberung der Welt (the disenchantment of the world), when the nature of a thing, for example a general, and the good of that thing were the same, in this case to be victorious in battle. Here fact and value are not merely mediated by function, they are united by it.

Premodern Europeans, then, thought of human beings the way we think of artifacts and vital organs of the body. Thus, for any person considered under a given role-description, a description of that person and a prescription of that person's appropriate behavior or proper function are one and the same. This gave moral and political judgments an authority they conspicuously lack today. Values are dimensions of the nature of things for premoderns; that is what natural law theory is all about. Natural objects, human and nonhuman alike, conceived within a teleological framework exhibit norm-laden tendencies, active dispositions rooted in their natures and moving them toward their specific telos or good. These ways of thinking were built into the conceptual framework of Aristotelian physics, which came in the Middle Ages to extend to the moral, political,
social, and theological world views not only of European Christians, but also of Jews and Arabs. For the theologians, the tendential inclinations exhibited by all natural kinds are the material counterpart of God's ideal ordination that each kind of thing aim at its specific telos.

Thus, in premodern cultural settings there is no special problem of moral authority. That is to say, the justification of moral prescriptions is not a central preoccupation of philosophers and theologians in premodern cultures. Nor is there a special problem of cognitive authority in these communities. The natures or essences in question can be directly known through sense perception aided by the ability of the intellect to grasp natures through concepts. Things are essentially as they appear. There is as yet nothing in the prevailing conception of science to suggest that the deliverances of the senses are fundamentally misleading; the appearance-reality distinction is not yet at epistemological center stage. That is to say, it is not yet a fundamental concern of philosophers to justify knowledge claims, that is, to conceive the theory of knowledge as if its central aim is to overcome Cartesian doubt. I shall return to the epistemological question in Part III below.

Capitalism (and modern science) spells the beginning of the end of this world. As we have seen, in traditional cultures persons were engulfed by and saturated with the relatively fixed roles and stations they identified with. While this gave persons some security and a sense of meaningful location in a stable community, it afforded little freedom. (Whatever songs people sang in those days, they never chanted anything like "I Did It My Way," or "I Gotta Be Me.") But a capitalist socioeconomic order requires that persons be capable of "individual freedom," understood in the first instance as the ability to be motivated by factors independent of customary social attachments. The key "motive" of homo oeconomicus is self-interest, which is defined in contrast, and often in opposition, to the customary and statutory interests that had hitherto been among the prime movers of human behavior. We find this reconceptualization of the person most fully developed in neoclassical, i.e., mainstream, economics, where human purposes, wants, and needs are theorized as if autonomously generated from within the individual, for whom the forms of social life are now seen as mere means to independently given objectives.

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2. Early modern physics and astronomy put forward a mathematicized mechanistic cosmology from which teleology in the form of final-cause explanations is entirely banished. I shall not pursue this aspect of modern science in any further detail.

3. Self-interest is in fact not a motive at all, but an adverbial feature of motives, indicating the way in which motives are pursued. See 1 A. MACINTYRE, THE ENCYCLOPEDIA OF PHILOSOPHY 462-66 (1967).
The individual described above is termed by social philosophers the "abstract (ab-trahere = to drag or pull away from) individual," what is left after the person has been detached from the network of traditional institutions, roles, meanings, and expectations that had conferred upon her a personal and moral identity. No longer possessing a character constituted by traditional identities, she finds herself saddled with a motley congeries of moral discourses inherited from the many and incompatible ethnic, religious, philosophic, and linguistic traditions that survive in modern pluralistic polities. Stuck with a Babel of incommensurable moral discourses, her choice and action are effectively disqualified as rational. Coherent moral understanding and practice in this cultural situation is as impossible as coherent scientific understanding and practice would be with a language of physics composed of these terms: Prime matter, electron, final cause, neutrino, and absolute space. As a result, moral disagreement about major issues tends to be interminable in modern cultures. The dispute about abortion illustrates this pointedly.

The familiar prochoice argument that the right of everyone over his or her own person includes a woman's right to the use of her body hinges on the early modern concept of natural rights and descends from the Lockean tradition. The prolife argument that the Golden Rule makes it inconsistent for me to defend a right to abortion when I would not want my own mother to have had an abortion when I was an embryo descends from the Kantian tradition, for which universalizability as a moral standard is a variation on the French Revolutionary claim that everyone is equal before the law. And the prolife argument, that since the embryo is a newborn infant in posse and a newborn infant is innocent, abortion is as much murder—the taking of innocent life—as infanticide is, is a modern rehabilitation of the natural law tradition and owes its flavor to Aquinas's Christian appropriation of Aristotle. Each of these distinctive moral inflections was once an intelligible and organic part of larger historical contexts of theory and practice of which it is now deprived. In the above arguments, one hears echoes of the incommensurable ways of life of the fifth century Athenian city-state, of thirteenth century Catholic Europe, of seventeenth century England in the throes of the epochal transition from feudalism to capitalism, and of eighteenth century Lutheran pietism. This cacophony of voices is the moral opportunity cost of our contemporary pluralist variant of liberal individualist culture. The resulting incommensurability of the elements of our inherited moral discourses has

5. A. MacIntyre, After Virtue, supra note 1.
profound consequences for legal theory and is reflected, as we shall see, in a number of exemplary legal decisions.

II. PROBLEMS OF RATIONALITY, OBJECTIVITY, AND AUTHORITY

The moral upshot of Modernity, then, is this: We have lost those features of social and cultural life which have, historically, conferred rationality and objectivity on moral judgments. In premodern cultural contexts the moral or ethical dimension of life permitted rational conviction: moral reasoning could proceed from shared premises grounded in the functional requirements of a specific way of life. Moral objectivity, also, was secured by these same features of premodern life. An objective judgment is intersubjectively valid, that is, expresses not merely the preferences of the subject who makes it, but makes a rational claim on the moral allegiance of the community to which it is addressed by virtue of its grounding in shared beliefs and values. (I shall return to the question of objectivity, in connection with cognitive concerns, in Part III below.)

The corrosion of the traditional bases of moral rationality and objectivity by the acids of Modernity creates for the abstract individual an historically unprecedented set of moral problems. The detached individual must now justify her most basic moral convictions. That is, the individual must identify and legitimate new sources of authority. It is part of the historic mission of modern law to provide, for a pluralist society lacking the cultural and philosophical resources necessary to sustain common beliefs and commitments, the functional equivalent of a coherent and effective moral discourse. I now turn to a discussion of the cognitive dimensions of the early modern crisis of rationality, objectivity, and authority.

III. SCIENCE AND THE DECLINE OF THE MODERN EPistemOLOGICAL Project

Premodern, namely, Aristotelian, science took ordinary perception to be fundamentally unproblematic. The way the world is was thought to be reliably revealed in the way the world appears. This “naive realism” (as contemporary philosophers call it) was radically undermined in the moral sphere by the same social and economic developments that produced the

6. Morality as socially, culturally, and ethnically specific is referred to by Hegel as Sittlichkeit (literally Customariness), in contradistinction to Moralität, i.e., morality as the conformity of behavior to universal cross-culturally valid principles, laws, or rules. Morality as Sittlichkeit is deeply rooted in the history of Western culture and is, whether we know it or not, firmly embedded in our conceptual framework. The word “ethics” derives from two Greek words, ethos and ethós, the former meaning “custom” and the latter “character.” “Morality” comes from the Latin mos, moris, the nominative plural of which is mores, which is roughly synonymous with both ethos and our word “mores.”
abstract individual. I want now to focus on the cognitive costs of these same developments in the transition to Modernity. I turn to the decline of epistemological realism and the striking failure of efforts to rebuild the edifice of knowledge on secure foundations within the parameters of the epistemological framework established in the early modern period.

I have alluded briefly to the connection between the great social, economic, and scientific revolutions of the early modern period and the seventeenth- and eighteenth-century preoccupation with epistemological skepticism. There appears at this time a novel epistemological vocabulary. The notions of "sensation," "impression," "idea," "experience," "concept," and "mind"—"the 'idea' idea," as Quine has called it—pervade early modern discussions of "the problem of knowledge." I begin by showing how this new discourse simultaneously creates a distinctively modern conception of cognitive realism and portends its decline. Second, I connect the decline of cognitive realism to the emergence of the late-modern version of the notion that knowledge is socially and culturally constructed. And I identify the reflection of these developments in a number of pertinent legal decisions. I suggest that legal Realism and CLS are the legal-theoretical expressions of this late-modern deconstruction of the modern epistemological project.

The "idea" idea reveals the virtually universal conviction of the major early modern philosophers that we have no direct cognitive access to what is revealingly called "the external world." Nascent theories of the neurophysiology of perception taught that "perceptions" or "sense-data" were caused to register in our field of awareness by the impingement of external stimuli on our sense organs. And the dethronement of Aristotelian science taught that a description of our perceptions is not necessarily the same as a description of the external world. Thus, whatever it is that appears, for example, in our visual field, could not be an external object, for when we apply pressure to our eyeball, the visual field jumps about, whereas the object, we believe, does not. Knowledge of appearances is not the same as knowledge of reality. The abstract individual is not only denied a moral footing in the real world, as we saw in Part II above, but is cognitively detached as well: the direct objects of both perception and thought are held to be mental contents, intrametal entities whose relation to the world of objects became the central problematic of early modern theory of knowledge.

Our natural inclination, unchallenged in the Aristotelian framework, is typically to accept perception as veridical, appearance as reality. With modernity this is no longer possible, for either extro- or introspection. (Freud is, of course, the Descartes of introspective science.) Our assent

must now be built upon unshakable self-evident foundations, from which we can construct an edifice of well-grounded knowledge by certain and reliable rules or methods. From this Cartesian injunction arise two rival traditions in the theory of knowledge: rationalism and empiricism. Each of these traditions gives priority to one of our two ways of acquiring knowledge about the world, thinking and observing, and identifies a corresponding foundation and method. Rationalism grounds knowledge on what Descartes called “clear and distinct ideas” or self-evident concepts, and it builds knowledge by the method of careful deductive reasoning from foundational axioms to superstructural theorems. Euclidean geometry was taken to be a science that exhibited this ideal. Empiricism finds the foundations of knowledge in observation, which yields “empirical evidence” from which knowledge is built by inductive inference.

Cartesian rationalism was the dominant influence in Newton's day and was regarded by Newton himself as the main account of science to come to terms with. But Cartesianism was doomed from the beginning by its infidelity to the actual practice of science. Newton's account of gravity was not deducible from self-evident axioms, and his conception of gravitational action at a distance was offered with no accompanying explanation, and was widely regarded as counterintuitive. The increasingly impressive achievements of the new science, based as they were on the ongoing refinement of the instruments (for example, telescopes and microscopes) and procedures of observation (experimentation), soon made empiricism the dominant and virtually exclusive philosophical tradition of Modernity. The bases of knowledge were to be sought in the deliverance of the senses, and the guiding method was to be induction.

The history of the philosophy of modern science is virtually indistinguishable from the history of the (ultimately fatal) problems associated with induction. I shall present a narrative of the salient turning points in the development of the dominant contradictions within the empiricist tradition, contradictions that have moved thinking about knowledge, science, and language farther and farther from realism and have rendered inescapable not only the weaker conclusion that human knowledge is constructed rather than discovered, but also the stronger contention that the world itself, the object of human knowledge, is in great part the product of human cognitive practices and as such bears the imprint of the interests and projects of its fabricators. Thus, by “realism,” I mean the notion that there is some conception of the world that reflects the fixed nature of the world, the way the world (already) is in itself, independent of the concepts and theories by means of which we grasp the world. Since our concepts and theories are inseparable from our language, antirealism can be expressed as a theory about the relation between language and the world: that our language penetrates so deeply into what we call “the external world” that we ought not think of language as expressing
knowledge by virtue of its "picturing" or "representing" or "mapping" a language-independent reality. Thus, the sociological claim of CLS that legal reasoning cannot operate independently of the personal values and beliefs of the judge or lawyer and the social context within which they reason is an instance of a broader epistemological-linguistic thesis (to be discussed in Part VI) about the nature of language and its relation to the world. Before we see exactly how this thesis is exemplified in the CLS doctrine of the "indeterminacy" of law, we must review the history of empiricist epistemology as it is reflected in empiricist philosophy of science. This will render perspicuous the dynamic by which Modernity's epistemological self-understanding establishes the conditions of its own demise. I begin with induction.

A. Induction, The Blindness of "The Facts," and Theory; Enter Interpretation

Francis Bacon, perhaps the first great philosopher of empiricist philosophy of science, expressed the new scientific sensibility in his insistence that understanding nature requires that we consult nature, not the writings of Aristotle. This sensibility is expressed today in the claims that science is "a structure built upon facts," and that it is nature that provides us with "facts." Facts are uncontaminated by our biases and prejudices, that is, "not related to some preconceived idea." These brute facts provide evidence that constitutes the basis or foundation for empirical generalizations, or laws and theories, which are the substance of our scientific knowledge by virtue of their employment in the production of explanations and predictions. Behind this picture lies the conviction that careful, theoretically and conceptually passive observation permits the "facts of the matter" to leap out from nature and impress themselves upon the inquiring mind.

Three assumptions are crucial to inductivism: (1) that science starts with a finite number of particular observations; (2) that these provide a solid foundation upon which to build scientific knowledge; and (3) that induction is the means by which the general laws that make up scientific knowledge are inferred from particular observation. None of these assumptions survives critical scrutiny. This, as we shall see, opens the door

8. I have traced the spirit of these formulations from Hilary Putnam. H. PUTNAM, REALISM WITH A HUMAN FACE xix, xx, 28, 162, 274 (1990).
10. H. ANTHONY, SCIENCE AND ITS BACKGROUND 195 (1948); see also A. CHALMERS, supra note 9, at 1.
to a more active role for the knower in the production of both scientific and legal knowledge.

The third assumption leans on the principle of induction: If a sufficient number of A's have been observed under a variety of circumstances invariably to possess the property B, then all A's possess the property B. It is not at all clear how a finite number of actual observations can stand in a confirming relation to a universal generalization (for example, all gases expand when heated) about an infinite number of possible situations. It seems natural to respond that belief in inductive confirmation is pragmatically warranted: the principle of induction has been employed successfully in the past, for example, to explain and predict a variety of events. This response, however, that the principle of induction always works because it has worked a finite number of times in the past, employs the very inductive principle it purports to justify. Nor will it do to meet the charge of circularity by claiming that the connection between the allegedly evidential premises and the general conclusion is merely probabilistic rather than strictly deductive, for the probability of a universal generalization's being true is expressed mathematically by a fraction whose numerator is the generalization's purported evidence and whose denominator is the generalization. Since the evidence consists of a finite number of observations, and the generalization covers an infinite number of possible situations, the probability of the generalization's being true, on the basis of the "evidence," is a finite number divided by an infinite number. The value of this fraction is zero.

Knowledge is justified true belief. Empiricism claims that what justifies true belief is a confirming relation between a finite number of observations and a generalization about all things of the kinds observed. The alleged confirming relation, however, appears to be unintelligible. We are hard put to say exactly what it is about the observations that supports the generalization, that is, that makes it reasonable to believe the generalization. Contrary to our common intuitions, it appears that no finite number of observations could possibly make any generalization reasonable to believe. The world as we passively observe it seems to have nothing to do with what we may justifiedly believe! This is strikingly demonstrable by the so-called "paradox of confirmation." Consider "All crows are black" or "For any x, if x is a crow, then x is black." If every observed kind of thing (crow) mentioned in the antecedent (the "if"-clause) is also observed to be the kind of thing (black) mentioned in the consequent (the "then"-clause), then the observer is inductively warranted to believe that all crows are black, that is, the generalization "All crows are black" is confirmed. Of course, whatever confirms a given generalization G also confirms any logically equivalent generalization, say H, since logically equivalent sentences say the same thing and whether a set of observations confirms a given generalization depends only on the content of the latter,
not on its formulation. Similarly, whatever confirms *H ipso facto* confirms

\[ G. \quad \text{"All not-black things are not crows," or "For any } x, \text{ if } x \text{ is not-black, then } x \text{ is not a crow" is logically equivalent to "For any } x, \text{ if } x \text{ is a crow, then } x \text{ is black."} \]

Thus, if every observed not-black thing is also observed not to be a crow, then one is warranted to believe both of the equivalent claims "All crows are black" and "All not-black things are not crows." So the observation of red fire hydrants and yellow pencils confirms "All crows are black"! Since this is preposterous, the observation of black crows has no more bearing on the truth of "All crows are black" than does the observation of red fire hydrants and yellow pencils.\(^{11}\)

Because the relation between premises and conclusion of an inductive inference is unintelligible, any given set of inductive premises will justify belief in each of several mutually inconsistent generalizations. The "evidence," therefore, is useless as a guide to choose from among the conclusions. This is amply illustrated in the history of science. Galileo concluded on the basis of experimental evidence that objects near the surface of the earth fall at a constant rate of acceleration. But Galileo's observations were equally probative with respect to an alternative conclusion—a finding of Newton's a few decades later—that the acceleration of an object varies inversely as the square of its distance from the center of the earth. Newton's law was of course unknown to Galileo, but had he entertained Newton's hypothesis when he formulated his own, his evidence would have provided identical inductive support for both generalizations.

Generalizations are indispensable to everyday life, modern science, and the law. The inadequacy of empiricism indicates that the intuitive conviction that our careful sense-observations suggest true generalizations is entirely misleading. We begin to suspect that "the facts"—the alleged objects of careful sense-observation—have less to do with our cognitive commerce in generalizations than do our own interests, values, and projects. Our intuitions tell us that we go about observing repeated conjunctions of properties until we are virtually forced to generalize that these properties always go together. But the cognitively relevant observed correlations are in fact not found in our daily intercourse with the world; they are found under the controlled conditions of well designed experiments. Indeed, it is the unavailability of epistemologically authoritative correlations in open systems that makes experiment necessary. Were it

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not for human intervention, that is, the creation of closed systems in elaborately designed experiments, no relevant correlations would be available for observation. Thus, human beings with their own purposes and projects are the agents of the very correlations that are alleged to constitute the foundations of our knowledge.\textsuperscript{12} The "radical" claim of CLS, that there is nothing inherently scientific, that is, neutral and independent of the contingent interests and agenda of judges, about the law that would "rationally" dictate case outcomes, turns out to be not radical enough. For CLS's standard of scientific rationality is an orthodox, empiricist one, and as we have seen (and will see further below) science as actually practiced is not in fact "scientific" by this standard. The law is much more similar to actual scientific practice than CLS imagines, precisely because science resembles, more closely than CLS imagines, the law as theorized by CLS.

Further evidence of this will be found in the course of our critique of the first and second of the three assumptions crucial to inductivism mentioned above, that science starts with observation and that observation provides a secure foundation on which to build scientific knowledge. We have already begun to undermine the latter assumption in our discussion of the confinement of epistemologically significant observations to closed systems. Now, we must reject the empiricist conception of observation altogether. In that tradition observation is identified with "sense-perception," that is, the reception of sensory stimuli from "the external world." Nothing recognizable as human perception, however, results from mere sensory stimulation. The experiences that an observer undergoes when perceiving an object depend upon her interests, expectations, past experience, cultural upbringing, and background knowledge. The well-known duck-or-rabbit drawing, seen by some as a rabbit and by others as a duck, illustrates N.R. Hanson's remark that "[t]here is more to seeing than meets the eyeball." All perceiving is perceiving as; one sees an object as something of a certain kind. Perception is propositional in form: one sees that \( x \) is \( P \), where \( x \) is an object variable and \( P \) is a sortal term, a category or concept variable. And concepts are not sensibilia. They are what philosophers call "universals," the conditions of the possibility of identifying an object as being of some kind. They are what enable us to answer, with respect to any perceived object, the question "What sort of thing is it?" They are intelligibilia. And there are no sensibilia without intelligibilia.

The inductivist may object to the foregoing by attempting to produce examples of "pure" sensibilia that he supposes to provide indubitable

\textsuperscript{12} For an exceptionally interesting development of this line of reasoning, but in the context of a defense of a form of realism, see R. BHASKAR, A REALIST THEORY OF SCIENCE (1978); R. BHASKAR, THE POSSIBILITY OF NATURALISM 1-30 (1979); R. BHASKAR, RECLAIMING REALITY (1989); see also R. HARRE, THE PRINCIPLES OF SCIENTIFIC THINKING (1970).
foundations for knowledge (indubitable because the sincere avowal of a sense-impression is infallible). The term "red," the argument goes, is defined ostensively rather than conceptually; its meaning is specified simply by pointing. Thus, to know what 'red' means (what red is), one need only be able to recognize a particular shade of color, a specific quality of visual sensation. But this account of the allegedly nonconceptual determination of the meaning of "red" presupposes the employment of the concept of redness. For one must be able to recognize successive instances of red, that is, one must be able, after the initial definition by ostension, to recognize future instances as similar to the original. But since everything is in some respect similar to everything else, the ability to identify a sub-set of all of one's visual experiences on the basis of a relevant similarity requires that the perceiver be in possession of a criterion of relevant similarity, in this case, the concept of redness. The possession of this concept is logically prior to the identification of particular sensibilia as instances of red. This is the point of Kant's remark that "percepts without concepts are blind." That concepts must in this sense precede our most elementary observations finds its advanced counterpart in the fact that theories must precede our most developed observations. The observations that Mary is paranoid, that John was killed by a bullet wound, or that Peter attends an inferior grade school because he was born into a poor family are all laden with some measure of theory. All perception requires enabling intelligibilia, the most elemental of which are unproblematic and uncontroversial, and the most advanced and complex of which are intensely contested.

Considerations such as these contributed mightily to the demise of the logical positivist dichotomization of observation and theory, which appears in legal theory as the dualism of fact and interpretation. The central division of function between judge and jury hinges on being able to sort out questions of law (interpretations of legal texts and rules) and questions of fact (description of events and activities in the world): the judge instructs on the former and the jury decides the latter. The legal Realists, however, were right in saying that all legally pertinent "factual" descriptions contain terms invoking categories of legal theory. While the fact-interpretation distinction has pragmatic utility at the institutional level, it is generally acknowledged that at the level of legal reasoning the distinction cannot be made operative by logic or principle alone, but re-

13. A. CHALMERS, supra note 9, at 29-30.
quires reliance on precedents of practice and history. Just as sense-perception presupposes concepts, legally relevant facts and accounts of law also presuppose the legal interpretation that effectively constructs them.

Consider *Riggs v. Palmer*. Elmer Palmer poisoned his grandfather in order not to lose a large inheritance. After Elmer's conviction, the New York Court of Appeals had to decide whether he should be allowed to inherit under his grandfather's valid will, in which he was listed as chief beneficiary. Nothing in the statutes regulating the making, proof, and effect of wills, and the devolution of property, literally forbids murderers from inheriting from those they murder. Judge Earl, writing for the majority, admitted as much, but held that "rational interpretation" requires that the intentions of the lawmakers in drafting the statute should over-ride their explicit words, and "it could never have been their intention that a donee who murdered the testator to make the will operative should have any benefit under it." The guiding assumptions here are that lawmakers could not have intended absurd things, and that it is absurd that a murderer should be permitted to gain from his evil deed. These assumptions themselves rest on the further assumptions, as Roscoe Pound put it, "that the lawmaker thought as we do on general questions of morals and policy and fair dealing [and therefore] that the [interpretation] which appeals most to our sense of right and justice for the time being is most likely to give the meaning of those who framed the rule." This, then, is the complex "justification" for privileging, for purposes of interpretation, the lawmakers' intentions over their words. None of these essential assumptions is based on sense-perception or observation. None is forced upon the judges by either logic or "the facts" or any then-current explicit provision. The same, of course, can be said of the rationale for Judge Gray's dissent, which claimed that "considerations of an equitable nature [that] commend themselves to the conscience" must yield to "rigid rules of law." The statute in question stated that "no will in writing, except in the cases hereinafter mentioned, nor any part thereof, shall be revoked or altered otherwise." Since no explicit provision thereinafter mentioned dealt with the facts raised in *Riggs*, Judge Gray felt driven to the conclusion that the grandfather's will should be carried out as writ-

15. The distinction limits the role of the judge, defines the special role of appeals courts, and specifies what pronouncements are to count as law. See Scheppie, Facing Facts in Legal Interpretation, 30 REPRESENTATIONS 42 (1990).
16. 115 N.Y. 506, 22 N.E. 188 (1889).
17. 22 N.E. at 189.
18. Id.
20. 22 N.E. at 191.
21. Id. at 192.
ten. That this would give his murderer most of his estate is perhaps morally moving but legally irrelevant.

These adjudications rest on different theories of interpretation. This much would be granted by many mainstream commentators, who would describe Gray's interpretation as a species of strict constructionism, and Earl's as less prosaic. But it does more justice to the epistemological issues at stake to analyze the Riggs case not so much as pitting a literal interpretation against a nonliteral one, but as rather construing the same problem against rival and incompatible purposes. The purpose guiding Gray's opinion is to ensure the orderly devolution of property, while Earl's agenda is to assure that the law never permits a criminal to profit by his crime. These are incommensurable purposes, in that we are at a loss to produce a third purpose, acceptable to both Judges, which would function as a standard permitting the ranking of the first two. This is the legal counterpart to the kind of moral incommensurability, illustrated in Part I in connection with the abortion debate, that is bequeathed to us by the transition from tradition to Modernity.

This highlights how problematic the normally uncontested notion of a "literal reading" is: each judge may reasonably claim to have literally construed the statute; however, each judge construes the statute against a differing purpose or background theory. This suggests that the usual debate between "strict constructionists" and their opponents systematically evades the decisive issues. For the latter have less to do with an "accurate" grasp of the law as such than with opposed social-, political-, and moral-philosophical values and projects concerning the desirable constitution of our society. Trying to settle this dispute by appealing to the law is like trying to check the accuracy of the newspaper by buying a second copy and comparing it with the first. What we have here is the legal appearance of some of the main difficulties with the correspondence theory of truth. A "literal reading" of a statute (or the Constitution) purports to "match" or "represent" the "true content" of the document. Riggs illustrates, however, that each interpretative contestant may rightfully claim to provide a reading that corresponds to the document, for there is more than one literal construction of the "same" statute. The interpretation is underdetermined by the statute as written, just as the perception of the duck-or-rabbit figure is underdetermined by the physical constitution of the figure, and inductive generalization is underdetermined by its alleged evidence. In the legal example the choice of interpretation is made by reference to extra-legal purposes, projects, and values. This choice is not

only not algorithmic but is enormously difficult because individualist pluralist cultures are morally and politically constituted by a range of incommensurable purposes and a corresponding deficit of shared beliefs and values, which makes rational, objective (intersubjective), and authoritative choice on these matters practically impossible. It is this feature of modern life that the Supreme Court is supposed to ameliorate. The concordance of the Justices functionally reproduces the intersubjectively shared beliefs and values that are virtually impossible to achieve in a large pluralistic population. Before I can develop this point I must draw out the consequences for the law of the failure of induction as an epistemologically probative procedure.

The difficulty of separating legal description from the application of legal rules and principles is a specific instance of the general epistemological difficulty of identifying aconceptual and atheoretical observations. Just as different adjudications in Riggs presuppose different interpretative theories, likewise purported statements of legal “fact” presuppose legal concepts whose meaning is found in the context of a more comprehensive legal theory. Consider one of the statements of “fact” in the Riggs majority opinion: “He [Elmer] knew of the provisions made in his favor in the will, and, that he might prevent his grandfather from revoking such provisions . . . and to obtain the . . . immediate possession of his property, he willfully murdered him by poisoning him.” The concepts will, possession, willfully, and murdered are already laden with legal-theoretical meaning. A piece of paper is no will unless signed properly; the sort of possession in question is (at least in appearance) rightful; to do something willfully is to intend it in a certain way; and to murder is to cause death with the intention to do so for a certain reason. None of the italicized terms admits of ostensive definition. No empiricist account of legal knowing will suffice. Legal terms are comparable to scientific terms such as “temperature” and “wavelength,” whose meanings are derived from the theories in which they occur, and “trump” and “checkmate,” whose meanings depend upon the games in which they are used.

Theories and games are not facts of nature. They are products of human purposive activity. Legally relevant facts are no different from scientifically relevant facts in that what one observes, what is available for any empirical investigation guided by legal or scientific purposes, is at least partially a product of human activity because it is suffused with theoretical and conceptual content. This further emphasizes the untenability of a sharp theory-observation dichotomy. For if the history of science shows that any theory (along with its constituent concepts), well-estab-

24. N. Hanson, supra note 11, at 61.
lished and predictively fruitful at a given time, is fallible (capable of being falsified and replaced at a later time), then if scientifically and legally relevant facts are theory-laden, these facts will partake of the fallibility of the theories they embody. One historical example illustrates this well.25 Early experimenters in electrostatics “observed” electrified rods becoming sticky (small pieces of paper would stick to them) and one electrified body rebounding from another. Later experimenters would correct these observation reports and replace the false conceptions that informed them with current theories of attractive and repulsive forces acting at a distance, which in turn would facilitate different observations of the same phenomenon. Similarly, a Michigan judge recently ruled that no one could have “observed” Dr. Jack Kevorkian planning and executing the murder of the woman whom he watched die as she pushed the button on the “suicide machine” he provided her.26 Had Michigan a specific law against assisting suicide, according to the judge, the outcome would have been different: in that instance, a witness might have rightly reported an observation of Dr. Kevorkian murdering Janet Adkins.27

That observation statements are in the decisive and relevant cases permeated by theory undermines the empiricist notion that a serviceably sharp distinction can be drawn between stark observation and theory so that the latter may be founded upon and justified by the former. Observation statements cannot constitute the incorrigibly secure foundation upon which to build laws and theories because they are as revisable and replaceable as the theories they purport to presuppose. Consequently, if a theory clashes with an observation statement, one is unable on empiricist grounds to decide whether it is the theory or the observation that is at fault. This is a serious problem for the successor to inductivism, the self-styled superior view called falsificationism.

B. Falsificationism and the Struggle Against Observation

The decline of traditional cultures and the emergence of Modernity undermined longstanding sources of both moral and cognitive authority. Karl Popper appreciated the failure of the inductive method to provide the source of the cognitive authority of modern science.28 Knowledge of the world is not the result of “the facts” impressing themselves upon an

27. Id.
attentive and unbiased mind. This realization is a further development of the dialectic of detachment in the development of Modernity's conception of the nature of knowledge. Popper's analysis concedes a much greater role to the knower in the construction of knowledge. The construction of theories is motivated by the desires to solve problems encountered by previous theories and to explain aspects of the world that engage the scientific community. The content of these theories, however, is not determined by rule or method; it is the product of speculative activity, tentative conjectures or guesses pitched against the world and either falsified or not falsified by the observed course of events. Someone once described this process, with a dash of irony, as "wishful thinking subject to correction."

While the premises of an inductive inference stand in no known intelligible relation to their purported conclusion, the premises of inferences exhibiting falsificationist method, Popper argued, stand in the tightest logical relation to their conclusions.\(^{29}\) "It is not the case that all crows are black" is deducible from "A crow that is not black has been observed." While generalizations cannot be confirmed, they can be falsified. Falsifiability, then, is what an hypothesis, law, or theory requires to count as scientific, that is, cognitively authoritative. Because science aims at theories with large empirical content, bold and rash speculative conjectures are to be encouraged, provided that they are formulated in such a way that it is clear what observations would count as evidence against them, and that they are in fact rejected when falsified. All this seems merely to express in a more elegant way the common intuition that people learn from their mistakes, and that science should therefore be expected to proceed and progress by trial and error.\(^{30}\) This procedure will not produce truth in the realist or correspondence sense. That a given conjecture has not (yet) been refuted is no guarantee that it will not be refuted in the future. The rationality of belief in a given theory, law, or hypothesis is validated by its superiority to its predecessors, a superiority that consists in its ability to survive tests that falsified its predecessors. Thus, if a scientist is entitled continually to claim that her convictions are rationally held, she must seek to falsify her pet theories. Thus, observation continues to play a role in this account of science's rationale, but the role is very different from the inductivist one. What the inductivist sees as a confirmation of his favorite theory, the falsificationist sees as a failed disconfirmation.

The historical record in some of its critical junctures appears to illustrate the Popperian approach. Aristotle's physics predicted that a stone

29. Id. at 78-92.
dropped from the top of the mast of a uniformly moving ship would fall to the deck some distance from the mast. This and other Aristotelian predictions were falsified during the seventeenth century. Newton's theory showed itself superior to Aristotle's not only by explaining what Aristotle could explain (the behavior of falling objects and the operations of siphons and lift pumps), but also by accounting both for observations that were problematic or anomalous for Aristotelians, and for phenomena not addressed by Aristotle's theory (correlations between the tides and the location of the moon, among others). Newton's theory was successful by Popperian standards for over two hundred years: it withstood attempts to falsify it by reference to the phenomena predicted with its help. Newton's theory is responsible for the discovery of the planet Neptune. This, however, did not establish the truth of Newton's theory in the realistic sense of "truth": it did not show that Newton's theory finally reflected the fixed, pre-existing nature of the world. Continued efforts to falsify it eventually succeeded. Newton's theory failed to account for the orbit of Mercury and the variable mass of fast-moving electrons in discharge tubes. Einstein's theory then came to stand to Newton's as Newton's had stood to Aristotle's: relativity theory explained what Newton's theory could explain and could account for the very observations that had falsified Newton's theory. Just as Newton's theory contributed to the discovery of Neptune, likewise special and general relativity theory predicted that mass is a function of velocity, that mass and energy could be transformed into one another, and that light rays should be bent by strong gravitational fields. There is no reason to doubt that a time will come when some theory stands to Einstein's as Einstein's stood to Newton's.

One might think that Popper's claim, that scientific inquiry is motivated by the attempt to overcome problems encountered by predecessor theories, reintroduces the objectionable assumption that science starts with stark observation. This, moreover, would re-open the door to realism. Problems, after all, are responses to observations, as the following problems illustrate: Why is the height of a barometer higher at high than at low altitudes? and Why does the perihelion of Mercury advance? It is not the sensuous content of the observation that makes it problematic; these observations are problematic only against the background of some accepted theory. The first problem above posed difficulties for adherents to Galileo's theories because it did not square with the "force-of-a-vacuum" theory that they thought explained why mercury does not fall from a barometer tube. The second problem was incompatible with Newton's theory. The priority of theory over observation does not pre-

31. A. Chalmers, supra note 9, at 48-49.
32. Id. at 46.
clude the notion that science starts with observed problems. It merely shows that these problems themselves are relative to the historically contingent theoretical beliefs of inquirers, and, thus, are not forced upon the mind by any "objectively problematic" state of affairs.

The Popperian approach appears both to be faithful to the actual historical development of science and to identify a logical relationship between premises and conclusion of scientific reasoning. Inductivism failed on both counts. At the same time, and perhaps ironically, falsificationism underscores the tentative and essentially revisable character of human knowledge. In this respect it constitutes a major plank in the platform of cognitive relativism. The refinement and revision of successive theories of (scientific) knowledge further undermines cognitive realism and the correspondence theory of truth. The constructed and nonmirroring character of human knowledge is nicely illustrated in those features of the history of the philosophy of science that call attention to serious problems in the falsificationist account.

Nothing is more relevant to the philosophy of science than the history of science insofar as this history describes the actual practice of science and the development of scientific knowledge. Science has historically not been obedient to falsificationist requirements. Newton's gravitational theory coexisted with observations known to be incompatible with it, such as observation of the orbits of the moon and of the planet Mercury. Popper himself acknowledged this and averred that promising theories should be given time, even in the face of recalcitrant observations, to show their worth, so long as they are not modified in an ad hoc way (such that no testable consequences follow from the modification that were not already testable consequences of the unmodified theory, thereby undermining ongoing criticism). As Kant observed, however, the scientist approaches nature as a teacher, not as a student, and the history of science is full of the invention of ad hoc qualifications designed to redescribe the world to render it conformable to theory. There is, for example, a general law of conservation that is unfalsifiable. If one holds, as scientists once did, that the sum of kinetic and potential energy is constant, and a powerful refutation is forthcoming, as in fact it was, one may indeed go on to abandon that specific conservation law while retaining the general law by producing an ad hoc modification. Scientists looked for a new conservation law formulated in terms of heat energy. This law too was refuted, and the coping strategy became familiar: make a new conservation law, conceiving a new form of energy to add to the old ones to preserve the general law of constancy. The "discovery" of the neutrino is an even more striking example. When beta decay was found to be inconsistent with the accepted principles of conservation of energy and momentum, Pauli and Fermi postulated the existence of a previously un conceived particle, the neu-
trino, which had whatever energy and momentum was necessary to salvage the conservation principles!

The conservation principles, then, are not principles among principles: They are so intertwined with the entire structure of modern physics that their rejection would effectively jettison the discipline as we know it. This is the basis of a steadfast and unshakable commitment to them. They are retained on grounds of coherence, not "correspondence" to "reality." That the existence of the neutrino was independently corroborated decades later in no way validates realism. Neutrinos are not "observed" the way dogs and cats are. An enormous range of baroque procedures, many of them designed and developed precisely for the purpose of detecting neutrinos, mediate our perception of hifalutin and experience-distant entities like neutrinos. What is recorded by the detectors of photomultiplier tubes today, as evidence of the existence of the neutrino, may be interpreted quite differently in the future and in the context of a now-unanticipated budget of problems and projects.

The two examples discussed above illustrate the imaginative character of scientific reasoning, the improvisational prowess required to preserve the canonical conservation principles. One is, therefore, inclined to call these principles "unfalsifiable," as if some logical property of the propositions stating the principles accounts for their "necessity." This is misleading. For we—in this case, the community of scientific experts or authorities—will not allow them to be false. There is a striking and significant isomorphism between science and law with respect to the locus of their authority. The Supreme Court functions as a counterpart to the community of scientific experts, and provides a paradigmatic example of a small community of authorities functioning to constitute as legally irrefutable certain principles and rules the validity of which no more derives from "the facts" or from logic than do the theoretical generalizations of science. When these legal principles and rules have moral import—which, by the nature of the sort of issues the law deals with, they must—they are likely, as foci of conflict and rivalry, to be incommensurable, so that the Court's task is in effect to reconcile the irreconcilable. In Regents of the University of California v. Bakke, a prominent case in point, the Court both ruled against ethnic quotas for admission to colleges and universities and permitted discrimination in favor of previously deprived minority groups.

An individualistic and pluralistic culture lacks authoritative, customarily validated shared beliefs and moral first principles, and, as Thomas

33. For a thorough discussion of the discovery of the neutrino, see G. Gale, Theory of Science 169-90, 278-85 (1979); H. Brown, Observations, supra note 25, at 63-70.
35. Id. at 319-20.
Hobbes taught us, this condition portends chronic civil war. The historical process has, then, bestowed upon the Supreme Court the task of averting radical civil conflict by providing a functional equivalent to the shared beliefs and values of the premodern past. I shall return to the Supreme Court in connection with my discussion of legal Realism and CLS, but this discussion requires first a partial digression in the form or an introduction to the significance of Thomas Kuhn and Imre Lakatos in the context of my narrative of the history of the epistemology of science.

IV. KUHN AND LAKATOS: EPISTEMOLOGY, SOCIOLOGY, AND THE RELATIVISM OF CONTESTED PERSPECTIVES

A striking feature of the history of science is that the scientific community has retained major theories in spite of conspicuous falsifying observations. Newton’s gravitational theory, Bohr’s theory of the atom, and Maxwell’s kinetic theory of gases were all acknowledged to be falsified by observations incompatible with the theories. All the important developments within the kinetic theory took place after knowledge of the falsification. It has thus been of signal importance to the progress of science that theoreticians not be daunted by recalcitrant observations as such. Contrary to both empiricism and falsificationism, scientists neither begin with neutrally observed data and use it to confirm or disconfirm theories, nor do they always abandon theories in the face of falsifying observations. In fact they typically begin their work from within the framework of an accepted theory that they proceed to use to guide their research and to determine how to explain observed phenomena. By this procedure, observations that might have been regarded by empiricists and falsificationists as disconfirming or falsifying are instead seen as research problems or puzzles to be solved by the further development of the theory. This is the practice of Kuhnian “normal science,” namely, research done in accordance with a “paradigm.”

The concept of a paradigm is central to the following analysis. For our purposes, two features of paradigms are crucial; one theoretical, the other praxical. There are the theoretical assumptions and explicitly stated laws presupposed by research scientists, and there are the standard ways of applying these laws and theories to various types of situations in such a way as to produce a concrete outcome. Members of the scientific community regard that outcome as an exemplary achievement. This recognition by the scientific community sets the standard for what is to count as a bona fide accomplishment within that particular framework of theoreti-

principles. I shall refer to the theoretical assumptions that constitute paradigms as *paradigmatic principles*. General conservation laws are paradigmatic principles. For ancient astronomy the geostatic principle and the principle that the motions of the heavenly bodies are circular were paradigmatic. By the eighteenth century, the moving earth principle had become paradigmatic. The principle of inertial motion was paradigmatic for Galileo. The rectilinear propagation of light is paradigmatic in geometrical optics. Maxwell’s equations are paradigmatic principles in classical electromagnetic theory. Paradigmatic principles alone, however, are insufficient to render paradigms effective in the actual practice of science. For *there are no useful rules for the successful employment of a paradigm prior to the identification of a paradigmatic achievement*. It is necessary to know what *counts* as doing science successfully, and experts’ recognition of a concrete accomplishment as paradigmatic says to novice inductees into the scientific community: “If you want to walk with us, walk this way.” Thus, Newton’s paradigm includes exemplary procedures for applying Newton’s laws to planetary motion, pendulums, and billiard-ball collisions, as well as instruments and the techniques for using these instruments that are necessary for bringing the laws of the paradigm to bear on the real world. The paradigm within which the neutrino functions as a required explainer stipulates the detector equipment (cable, scintillating liquid, photomultiplier tubes) required to identify neutrinos and what counts as a recording by a photomultiplier of a neutrino event. *Paradigmatic achievements* function in science analogously to the way *precedents* do in the law; *paradigmatic achievements* stand to *paradigmatic principles* as precedent does to rule or statute.

Paradigmatic principles operate in science in much the same way that the principle of causality (every event has a cause) functions in everyday life. The principle is not derived from experience, since no experience could refute it. Failure to observe a cause in a given case indicates inadequate observation; it never evidences that there simply is no cause to be found. Unwillingness to countenance the latter possibility bespeaks the contemporary agenda. We are determined to organize our experience in such a way that permits the representation of objects as subject to control through human intervention and manipulation. That is what is most distinctively modern about modern science, the interest to expand without limit the range of manipulative control of objects. The principle of causality is a primary cognitive instrument of that agenda. The unfalsifiability of the causal principle betokens not its inherent necessity but rather its

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38. For a perceptive treatment of the search for a cause as the search for a general manipulative technique for the purpose of intervention, see Gasking, *Causation and Recipes*, 64 *Mind* 479-87 (1955).
instrumental requiredness for the sort of control scientists desire, a desire that is itself contingent. The principle that things are to be understood as objects open to increasing control is the supreme Meta-Paradigmatic Principle of modern Science; paradigmatic principles must be thought to further the Meta-Principle. Paradigmatic principles function within their respective disciplinary matrices and in conjunction with epistemic values, such as simplicity, consistency, explanatory comprehensiveness, and fruitfulness in solving standing puzzles and generating new ones, to broaden science's range of technological applications, and, therefore, to widen the horizon of prediction and control. Their perceived effectiveness toward this end is a major consideration in the decision of the scientific community to employ them. A very similar situation obtains with respect to the law.

Just as the scientific community of experts is guided by the overarching aim of manipulative control, similarly, Modernity's fundamental moral and social Meta-Principles of individual freedom, natural rights, and equality before the law guide the Supreme Court. The scientific community has, as Kuhn has stressed, no algorithmic means to choose among contending paradigms. Similarly, the Supreme Court does not possess strict prescriptive rules or principles that both embody the Meta-Principles and determine their next application. The parallel here is most interesting. Consider further the case of Kuhnian incommensurability. The comparative evaluation of rival paradigmatic principles cannot be effected by a neutral set of principles and observations that enable the ranking of the rivals. Rival paradigms typically (1) identify different problems—medieval physicists wondered why something keeps moving, Newton asked why this or that change of motion or acceleration takes place; Aristotle asked why there are the species that there are, Darwin asked why a given species survives rather than becomes extinct; (2) employ different standards of success for their solution; (3) do not share a common fund of observational data; and (4) must be chosen on the basis of commitment to a number of epistemic values. Each of these values may be applied differently, and their relative weighing when jointly applied may differ among different scientists. The fourth reason is most significant because of its bearing upon both scientific and legal adjudication.

With respect to the different possible applications of epistemic values, consider the difficulty of applying the epistemic criterion of accuracy to the choice between phlogiston theory and oxygen theory. The former explains the fact that metals are more similar to each other than to their

ores; the latter explains weight relations in chemical reactions. The epistemic value of accuracy is thus, as CLS might put it, criteriologically indeterminate, that is, it is insufficient to determine its own application, so that either theory may be argued to pass the test of accuracy, depending on how the latter is interpreted in this context. The situation to which the standard in question is applicable is essentially multifaceted. It rules out by its nature a unique and exclusive application of the criterion. Legal situations exhibit this same feature.

With respect to the fact that the relative weighing of these values when applied may differ among different scientists, consider a characteristic problem associated with the joint application of epistemic values: the values of simplicity and consistency collide in the choice between heliocentric and geocentric astronomical theory. Ptolemy’s geocentric theory was not only internally consistent, but was consistent with much more of the broader physical theory of the time than was Copernicus’s heliocentric theory. Copernicus’s theory was simpler than Ptolemy’s theory in that certain broad features of planetary motion could be calculated with fewer mathematical assumptions. Each paradigm satisfied one element in the set of epistemic values but did not satisfy some other. Kuhn argues that this sort of consideration shows that principled criteria (standards expressed in the form of rules such as “Choose the more accurate (simple, coherent) theory” and “Choose the theory that is more simple and coherent”) are insufficient to determine theory or paradigm choice. This suggests two important conclusions: (1) that paradigm shifts have a revolutionary and discontinuous appearance, such that there is no logical segue from a paradigm to its successor, and (2) that to understand why a particular theory choice is made it is necessary to look beyond the scientific community’s shared epistemic and theoretical values to the sociological context of theory choice. “Like the choice between competing political institutions,” Kuhn writes, “that between competing paradigms proves to be a choice between incompatible modes of community life.”

The recognition that the philosophy of science points to its (at least partial) transcendency in the sociology of science has led to a vast and impressive array of studies in the sociology of scientific theory choice.

The history of the law exhibits something strikingly similar to the abrupt paradigmatic Gestalt-shifts and the employment of rival principles of adjudication that we find in the history of science. Landmark new laws are promulgated that profoundly transform and disturb the settled practices of the entire culture. Previously acceptable behavior may be ren-

40. T. Kuhn, supra note 39, at 94.
dered criminal, criminal behavior may be reconstituted as permissible, and policies without the broad support of the people may become enforced overnight. Consider one of the most influential laws to emerge from the Supreme Court, the Baker v. Carr decision of 1962. It requires both branches of all bicameral state legislatures to be chosen by equally weighted popular votes, rather than by geographically drawn districts. This law applies only to the House of Representatives and not to the Senate. So an arrangement judged suitable for the federal legislature—indeed mandated by the Constitution—was judged by the Court unconstitutional as applied to the states. This is the legal counterpart to the scientific community's simultaneous commitment both to a law or theory and to a recalcitrant or logically falsifying observation. This decision was based neither on the Constitution nor on any enacted law at all, but rather on social and political values. Richard Taylor has suggested that considerations of "fairness, pure and simple," were the basis of the decision. Fairness, however, is no more determinate a standard in the law than accuracy, consistency, and simplicity are in science. Baker's proponents argued that the status quo ante in effect disenfranchised urban voters in many jurisdictions. Values attendant to rural communities were privileged, presumably in order to preserve the ethos many consider loosely associated with the "middle American" mainstream. Apparently, a number of considerations carried weight for the Court, including "fairness" to urban voters and an acknowledgment that the trend of modern history is toward the hegemony of urban-industrial values and the relative decline of the agrarian ethos. That the Constitution was framed by men who knew nothing of modern industrial life, and that key framers constructed their principles around an image of the form of life exhibited by communities of yeoman farmers, carried no effective weight with the Court. These sociological considerations, along with the fact that neither declared law nor what sociological jurisprudence calls the "living law" guided the Justices lends support to Thomas Kuhn's remark, quoted above, that a decision such as this, like paradigmatic theory choice in science, "proves to be a choice between incompatible modes of community life."

This kind of approach to the character of legal reasoning—suggested by the failure of inductivist and falsificationist accounts of the growth of scientific knowledge to square with the historical practice of knowledge-development—undermines an alleged discontinuity implicit in mainstream legal theory. This discontinuity is between historical accounts of

42. 369 U.S. 186 (1962); see also Reynolds v. Sims, 377 U.S. 533 (1964).
44. T. KUHN, supra note 39, at 94.
how contested issues came to public attention and *legal-theoretical accounts* of how these issues are handled by lawyers and judges once they reach the courts. The Kuhnian account has much in common with legal Realism. The Realists insisted that conflicting and incompatible decisions pervade the law and that legal reasoning in actual practice does not exhibit the forms of logical deduction.\(^4\) It follows from this, thought the Realists, that we must look to the motives, interests, and values of judges in order to understand the conclusions of judicial decision-making. Thus, both the factors that bring an issue to public attention, and the causal influences that produce judicial decisions about these issues, are sociological in nature. The Realists, however, were essentially technocrats, and therefore empiricists: they proposed that judges base decisions on the empirical findings gathered and analyzed by social scientists. Realists, then, while maintaining that liberal jurisprudence is guided by cultural bias and self-serving (or class- or race- or gender-serving) ideology, nonetheless attributed to the theoretical productions of social “scientists” precisely the kind of objectivity they charged liberals with falsely attributing to the law. The Realists limited what philosophers call the “essential contestability”\(^4\) of social, moral, and political concepts to legal concepts and reasoning. With respect to the social “sciences,” the Realists were unreconstructed realists. CLS comes close to expunging this last bit of residual realism from the law in its doctrine of indeterminacy. We will better be able to appreciate the profound consequences of the doctrine of indeterminacy only after we have examined further the connection between, on the one hand, the above-mentioned continuity between accounts of how contested issues become issues and how these issues are handled legal-theoretically, and, on the other hand, the nature of a certain kind of causal explanation, and the import for these questions of the holistic nature of understanding and explanation. Let me begin with a discussion of the relevant features of the abortion issue.

A. Essential Contestability, Perspectival Relativism, and Theory Construction

The abortion debate in the United States originated in the nineteenth century with the successful efforts of male physicians to establish a pro-

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45. The *legal* Realists are not to be confused with adherents to the *epistemological* realism refuted in this Paper. The Realists were inspired by Oliver Wendell Holmes and philosophically influenced by the pragmatists William James and John Dewey. For representative samples of Realist theory, see Llewellyn, *The Rule of Law in Our Case Law of Contract*, 47 Yale L.J. 1243 (1938); J. Frank, *Law and the Modern Mind* (1930).

fessional monopoly over medical services. Chief among their competitors were midwives and herbalists, whom the physicians aimed to put out of business by charging them not only with incompetence, but also with immorality because of their regular if not frequent performance of abortions. As a result of this campaign, between 1850 and 1890 every state enacted laws requiring that only physicians could perform abortions. In addition, physicians could abort only when pregnancy threatened the mother's life. Abortion became a non-issue until the early 1960s. The result of this new round of debate and struggle was that in 1973, with Roe v. Wade,47 persons were not to include the unborn, and abortion decisions passed from physicians to women. Since 1973, abortion has generally been available on demand. Not long after 1973, a new round of debate broke out, spearheaded by a perhaps unexpected new constituency, "prolife," anti-abortion women. The abortion debate is now centered around the conflict between the "prolife" and "prochoice" positions. The arguments and counter-arguments are moral and philosophical and hinge on questions like "When does human life begin?" "Is the fetus a person?" and "When the rights of the mother conflict with the rights of the fetus, which should prevail?" The sociological sensibility sees this apparently moral conflict as the appearance of an underlying social reality, in much the way that a mirage (the appearance of a puddle of water on the road ahead) is an appearance of a more fundamental reality (the play of the sunlight on the road).

Kristen Luker, in an impressive study, has argued that the conflicting moral positions express the different and opposed experiences of motherhood and of the meaning of a woman's life of two different constituencies, each with different and conflicting stakes in the world.48 Each constituency believes that the prevalence of the other would threaten its very existence. The most vocal advocates of legalized abortion are upper-middle-class women who have entered, or aspire to enter, careers traditionally reserved for men. These women want a sexually integrated labor market and do not desire jobs like teaching and nursing, which permit easy exit and re-entry for child rearing. Rather, these women want professional careers, such as law, medicine, or scholarship. Since the vicissitudes of women's reproductive processes have been consistently cited as a "reason" against women's entering such careers, the typical prochoice advocate sees control over her reproductive processes, and therefore abortion on demand, as the most striking symbol of her expectation and achievement of social and economic equality with men and the sense of self these

47. 410 U.S. 113 (1973).
aspirations mirror.49 The most vocal opponents of legalized abortion tend to be less educated than their prochoice opponents, and to be married not to professionals but to skilled workers or small businessmen. These women see motherhood as the one responsibility that confers dignity and worth on their lives, the only self-description on whose resources they can confidently trade in their ongoing intercourse with their husbands and the world outside the family. Abortion seems to them to disenchant motherhood and so to devalue their lives. This, argues Luker, is what animates the social struggle called "the abortion debate."50

The nineteenth-century origins of the abortion debate and the current prochoice/prolife antagonism provide two examples of sociological forms of explanation. The moral discourses usually employed to characterize the conflict are, from the sociological point of view, rationalizations that elevate to the level of principle and law interests and values that are in fact social, psychological, and political (in the broad sense of the term). The Realists and CLS argue that legal reasoning has the same status that moral reasoning has in these examples: it expresses, indirectly and misleadingly, the social and political values of the respective constituency, in this case judges. It is prima facie evidence of the indeterminacy of legal principles and rules that they can be employed to rationalize conflicting and incommensurable interests. The key moral arguments in the abortion debate rest upon incommensurable principles inherited from rival and conflicting traditions. What is more, this cacophony of principles is employed in the prochoice/prolife struggle to adjudicate fact-situational conflicts that themselves embody rival and incommensurable interests, perceptions, and senses of self. The isomorphism in this respect of moral and legal contestation is reflected fully in those cases that exhibit a congruence of moral and legal concepts.

Conflict about justice is of course the prime instance of such contestation, and the conflicting and widely-debated positions of John Rawls and Robert Nozick illustrate it perfectly.51 Consider the situations to which these positions are applied.52 Jones worked hard and saved enough money to buy a house, send his kids to college and finance part of his parents' medical care. He views rising taxes as jeopardizing these efforts and regards taxation as an unjust claim by the state to his earnings. He claims he is justly entitled to these earnings and, therefore, at liberty to dispose of them as he chooses. He votes Republican. Smith views the unequal distribution of wealth, income, and opportunity as both arbitrary and

49. Id. at 192-215.
50. Id.
52. A. MACINTYRE, AFTER VIRTUE, supra note 1, at 227-37.
productive of an unequal distribution of political power and, therefore, unjust. She believes that inequality stands in need of justification and is tolerable only when it can be shown to be the best way to improve the condition of the deprived, (e.g., by encouraging economic growth). She infers that justice requires progressive taxation and a redistributive policy. She votes Democrat. The libertarian Jones contends that the legitimate acquisition of property generates rights to these holdings and limits on just redistribution. The resulting inequality is simply the opportunity cost of liberty and justice; "there is no such thing as a free lunch." Smith sees justice as based on the equality of each person's claim to the means to satisfy basic needs. If this results in redistributive taxation or eminent domain, well, "you have to break an egg to make an omelette."

Jones is a Nozickian whose paradigmatic principle is that abstract individuals have fundamental, natural, and inalienable rights to private property. Smith's position embodies Rawlsian paradigmatic principles. These principles hold that people are equal with respect to their basic needs, and that social relations are fundamentally communitarian, not contractual and instrumental. As paradigmatic and, therefore, unargued, these principles may not be weighed against one another because they express competing and incommensurable ways of life. As in the case of the moral debate about abortion, rival interests, perceptions, and senses of self are rationalized in correspondingly incompatible principles. In both cases the social, political, and psychological values of particular and exclusive constituencies are indirectly and misleadingly rationalized in principles that purport to be universal, impartial, and based on nothing but "rational" considerations.53 The legal Realists and CLS claim that legal reasoning displays the same pretension: the rationalization of social and political particularity by means of allegedly logical and, therefore, impartial reasoning. This collapses the mainstream distinction between the sociological way we explain how these various issues are made into problems and come to public attention, and the principled and impartial way we explain how the law adjudicates and settles these disputes: both accounts have been sociologized.

These considerations provide an important part of our account of why moral and legal analysis and interpretation are underdetermined by the facts that are analyzed and interpreted. A similar practical situation that analysis and interpretation addresses is amenable to several incompatible interpretations because: (1) the situation is complex, multifaceted and composed of incommensurable, (i.e., fundamentally opposed) compo-

53. A comparable issue is the notorious conflict between communities that want to prohibit the commercial display of pornographic films and magazines on the grounds that members of communities have the right to exclude what is repugnant to their shared sense of community, and businessmen who claim that this jeopardizes their civil liberties.
ments, and (2) the principles available as instruments of interpretive analysis are paradigmatic (i.e., jointly incommensurable), not forced upon the interpreter by either the facts or logic and individually consistent with only one of the several antagonistic components making up the problematic situation. In Riggs the situation is composed of a person who has a *prima facie* right to inherited property, and persons who desire that crime not be beneficial to the criminal. In both Roe and the post-Roe struggles, we find constituencies falling under a number of descriptions: "women eager to protect innocent human life," "women responding to threats to their dignity as mothers," "women wanting to control their own bodies, including the vagaries of their reproductive processes," and "women wanting to safeguard their aspirations to social and economic equality to men." In Baker (and Reynolds) we find constituencies representing the "traditional, middle-American" people who display a rural ethos and those who speak for an expanding urban way of life. In each case there are available to judges correspondingly incompatible rules and principles. In natural science, the object of analysis is of course not composed of rival social interests and perspectives, but it is, like the objects of moral and legal analysis, essentially multifaceted and, as we have seen, overdetermined by the conjunction of criteria that is available for its theorization. 54 That is why, in Kuhn's words, "... two men fully committed to the same list of criteria for [theory] choice may nevertheless reach different conclusions." 55 The essentially contestable concepts that make up both paradigmatic principles and the descriptions of the complex situations to which they are applied render hopeless the legal Realists' aspiration to overcome the indeterminacy of legal rules by appeal to the "factual" findings of social "scientists."

The foregoing discussion of the similar roles of paradigmatic principles in the adjudication of key moral, legal, and scientific disputes, and of the sociological matrix of moral, legal, and scientific reasoning, draws attention to the complex character of the situations to which principles are applied. This points to the essentially *holistic* nature of moral, legal, and scientific understanding and explanation and brings us closer to CLS's doctrine of indeterminacy. Three examples will carry us further. The first illustrates the complex and holistic nature of test situations in natural science and shows how this feature of test situations makes it impossible for the practice of science to be obedient to the falsificationist requirements discussed earlier. For there is a massively complex web of assumptions and initial conditions backgrounding the testing of any theory. These assumptions and conditions include laws and theories that deter-

54. Some of these criteria are: Accuracy, consistency, simplicity, and predictive power.
55. T. Kuhn, *supra* note 39, at 324.
mine the use of the relevant instruments and the specific features of the experimental set-up. Suppose that the telescopic observation of the position of some planet is an essential part of the test of some astronomical theory. The theory must predict the orientation of the telescope required for the planetary sighting at the specified time. The prediction will be derived from premises that include the statements constituting the theory being tested, statements of initial conditions such as previous positions of the planet and perhaps the sun, auxiliary hypotheses enabling corrections for refraction of light from the planet in the earth's atmosphere, and more. Since the testing prediction follows from this complex set of premises, the failure of the planet to appear at the predicted location means only that (at least) one of these premises must be false. We do not know, however, that it is the theory under this test that is at fault; it may be that an auxiliary assumption was wrong, or that the initial conditions were misdescribed.

Imre Lakatos has suggested, in a brilliant historical survey, that science as actually practiced includes sometimes baroque variations on this theme. He describes "an imaginary case of planetary misbehavior" in the Newtonian era. A scientist uses Newton's mechanics to predict the path of a newly discovered planet \( p \), but observation shows that the planet deviates from the calculated path. In order to save the theory, he posits a hitherto unknown planet that disrupts the path of \( p \). The scientist fails to observe the posited planet; he responds that the planet is too small to observe by available equipment and applies for a research grant to build a better telescope. The telescope is built but fails to provide the desired observation. Our scientist is undaunted, and explains the failed observation by other rationalizations. The retention of Newton's theory in the face of its apparent refutation by the orbit of Uranus is an historical instance of the strategy of introducing new empirical hypotheses in order to bring an old theory into conformity with new evidence. The degree of imaginative construction involved in this strategic dimension of the production of scientific knowledge is more strikingly illustrated in cases concerning conceptual, rather than empirical fabrication. Such cases are closer to the sort of fabrication that is often characteristic of legal reasoning. Consider the similarity of Einstein's defense of the theory of special relativity to the application of the legal fiction "civil death."

Special relativity theory rests on two postulates: The laws of nature are identical for all observers moving with constant velocities, and the velo-

56. A. Chalmers, supra note 9, at 64.
58. Id. at 100.
59. Id. at 100-01.
ity of light is the same for all observers. Some physicists argued that in the framework of classical physics these hypotheses can be mutually contradictory. Einstein conceded the contradiction, yet he argued that these hypotheses alone were insufficient to generate it. There existed, he argued, a third postulate—that measurements of time are independent of the motion of the observer—which, when added to the first two, produced a contradiction. The contradiction, therefore, could be removed without touching Einstein's favorite pair of hypotheses: Einstein was offering a radical revision of the concept of time which saved the original pair of hypotheses and removed the principal obstacle to further work in a special-relativity-informed research program. Einstein also took advantage of then-recent advances in non-Euclidean and differential geometry to reconceptualize gravitation and space. This amounted to offering a new mode of representation, a new grammar for the scientific language of data-interpretation. There is no question of validating these redescritions by matching them up to "the facts," since, as we have seen, identifying the scientifically relevant facts presupposes the use of some grammar. Their validation usually involves some combination of the following considerations: ongoing work in a promising paradigm is facilitated; longstanding problems are solved; novel predictions of interest to the scientific community are generated; new technologies facilitating a broader range of control and manipulation are created; apparent inconsistencies in the current budget of theoretical and methodological assumptions are shown to be merely apparent. Generically, these considerations come to two meta-goals: to render increasingly coherent the various elements of our inter- and intra-disciplinary knowledge, and to expand the range of technological control.

The above considerations, which point to the holistic nature of moral, legal, and scientific understandings and explanations, make it clear that the correspondence theory of truth and its kindred theory of language—that words have meaning and inform us about the world by virtue of a one-to-one word-world linkage (or sentence-fact hook-up)—is a naive and unfaithful account of how we actually go about acquiring and developing our knowledge. In fact, we sometimes ignore significant falsifications, redescribe data, postulate ad hoc entities, and reconceptualize theoretically strategic but nonobservational terms like "space," "time," and "matter" in the name of one or more of the meta-goals described above. Willard van Orman Quine describes the upshot of all this as follows:

[a] whole sentence is ordinarily too short a text to serve as an independent vehicle of empirical meaning. It will not have its separate bundle of

60. H. Brown, Rationality, supra note 11, at 92-93, 100-06; M. Munitz, The Question of Reality 184-86 (1990).
observable or testable consequences. A . . . scientific theory, taken as a whole, will indeed have such consequences . . . . Our statements about the external world face the tribunal of sense experience not individually but only as a corporate body . . . . A conflict with experience at the periphery occasions readjustments in the interior of the field. Truth values have to be redistributed over some of our statements. Re-evaluation of some statements entails re-evaluation of others, because of their logical interconnections . . . . The total field is so underdetermined by its boundary conditions, experience, that there is much latitude of choice as to what statements to re-evaluate in the light of any singular contrary experience.61

Quine’s remarks point to coherence rather than correspondence as the test of truth in science and, by implication, in our nonscientific knowledge claims as well. All of these claims exhibit the features pithily characterized by Quine.

I have argued that the law is strikingly similar to science in (1) its reliance on paradigmatic principles applied and interpreted by a relatively small community of expertise (the scientific community/the Supreme Court); (2) its inability to escape some measure of contradiction by virtue of (a) the incommensurable and therefore sometimes conflicting character of its budget of principles and (b) the underdetermination of its principles by the essentially conflictual and hence interest-, perspective-, and value-riven nature of the complex social situations to which they are applied; and (3) its need to appeal to sociological and political considerations in order to explain the actual applications of indeterminate principles to multifaceted and internally heterogenous situations. A further look at Riggs illustrates yet another similarity between legal and scientific reasoning: the fabrication of new concepts and descriptions to subsume familiar situations under an older description. That the following provides an instance of conceptual fabrication for purposes both pragmatic and logical makes it a legal counterpart to the sort of move in science typified by Einstein’s inventive reconceptualization of something familiar under an old description—time.

A road not taken by the judges in the Riggs case was the invocation of a concept operative in the early days of American law, the legal fiction known as civil death. A convict pronounced civilly dead often had his property removed from his control, by allowing it to pass on to his heirs as it would if the convict were physically dead. A long history exists in the common law whereby the deprivation of a convict’s civil rights ipso
facto constituted him as civilly dead. There was a precedent, then, for considering Elmer Palmer civilly dead for the poisoning of his grandfather. The long story of the ongoing reconceptualization of civil death and the debates about its proper application in complex cases need not concern us here. Suffice it for our purposes to point out that the application of the concept of civil death was possible in the Riggs case. An argument for the application of the civil death concept in another case, Avery v. Everett, brought to the New York Court of Appeals just one year before it considered Riggs, is also worth consideration. In Avery, the majority interpreted civil death in such a way that a convict deemed civilly dead was nonetheless permitted to retain inherited property. Here we have a dispute about the proper application of a fabricated concept. The dissent in Avery, from Judge Earl (who wrote for the majority in Riggs), argued that it was obviously good policy for civil death to separate a convict from his property since the statute pertaining to civil death “brought the law into harmony with our social organization and governmental system.”

Judge Earl appeals to a coherence criterion in support of his interpretation. After all, what I have called the bottom-line principles of the Constitution are supposed to be made flesh in our distinctive way of life, in the larger context of “our social organization and governmental system,” such that it is one of the principal tasks of the judiciary to ensure, insofar as the law can ensure, that no precedent is set establishing behaviors, actions, and institutions that stand in opposition to (i.e., fails to fit or cohere) the values embedded in our definitive practices and institutions. This not infrequently requires the conceptual reconstitution, for the purposes of the law, of familiar notions, just as Einstein reconstituted, for the purposes of physical theory, the concept time (which continued to function ordinarily in everyday usage). Thus, we find within the law conceptual fabrications such as implied invitation, constructive discharge, implied contract, and quasi-derelict.

Now the process of “bringing the law into harmony with” our larger social and political life is no more democratic than conceptual revision and the choice of theoretical paradigms in science is democratic. In the final analysis, it is the judgment of the professional community that set-

63. 110 N.Y. 317, 18 N.E. 148 (1888).
64. Id. at 154-55.
65. Id. at 155.
66. What is meant here is that the original concept namely, death, continues to function customarily in ordinary usage.
ties paradigmatic issues in science. The problems and the language in which they are framed are usually entirely unintelligible to the vast majority of those whose lives will be affected by these settlements. Similarly, what coheres with a way of life exhibiting the values of natural rights, individual liberty, and equality before the law is determined ultimately by the informed judgment of the Supreme Court. And in this case, too, some of the most far-reaching decisions are bound to be undemocratic. Richard Taylor has argued that Baker v. Carr would never have been decided as it was by democratic processes since legislators could not be expected to undermine the foundations of their own legally held power. Neither would the landmark 1954 case of Brown v. Board of Education, which overturned what had been longstanding settled law and conferred hitherto unacknowledged educational opportunities on Afro-Americans, have emerged from the democratically elected legislatures in those jurisdictions most tangibly affected. The broad range of requirements imposed on all state and lower jurisdictions in the wake of decisions such as Miranda v. Arizona and Gideon v. Wainwright, which confer rights on those accused of criminal behavior, would never have resulted from popular clamor to protect much less to create constitutional rights for accused murderers, rapists, and muggers.

But there is another reason, emerging from a central theoretical theme of this essay, that precludes democratic law-making in cases such as these. For the social and political world of modernity is, as we have seen, composed of complex fact situations and comprised of rival and incompatible interests, values, and perspectives, which are reflected at the legal level in incommensurable laws and rules of adjudication. Virtually every law is enacted at the expense of some group, and it is not unlikely that the latter may sometimes constitute a popular majority. Ultimately, the question is whether the object of adjudication coheres with the way of life embodying the spirit of the Constitution, as judged by nine unelected Justices in a manner that follows no algorithm. Their informed and trained judgment issues in decisions which are more akin to the creation of new law than to the application of pre-existing law. The judiciary and the scientific communities are not unlike the third umpire in the story of

68. 369 U.S. 186 (1962).
69. Taylor, supra note 43, at 43.
70. 347 U.S. 483 (1954).
73. For perceptive discussions of the authoritative character of professional judgment, see M. Polanyi, The Tacit Dimension (1967); H. Brown, Rationality, supra note 11, at 137-77; M. Oakeshott, Rationalism in Politics 10 (1962) (Oakeshott, in an illuminating phrase, claims that the ability wisely to make this kind of judgment "can neither be taught nor learned, but only imparted.").
three umpires describing their authority in baseball. The first says, "I calls 'em the way I sees 'em." The second asserts, with greater self-confidence, "I calls 'em the way they are." The third umpire, a late modern of no mean sophistication, has the last and best word: "They ain't nothing until I calls 'em!" I shall have more to say about authority in modern knowledge, and more specifically in the law, in connection with my discussion of legal and linguistic indeterminacy in Part VI.

I turn now to the third of my three examples illustrating the path from holism to indeterminacy. This kind of example is notable primarily for two of its features: its illustration of a kind of causal relativism, and its illustration of what I shall call the indeterminacy of responsibility. Imagine the search for an explanation of the outbreak of plague among a certain population. A search for an explanation is normally a search for a cause: What caused the outbreak of plague? Here the complexity of the factual situation is reflected in a multiplicity of causal explanations corresponding to the multiplicity of disciplines from within whose framework one might seek an explanation. The bacteriologist might analyze the blood of a victim and identify the microbe she finds as the cause. The entomologist might single out the microbe-carrying fleas that spread the disease. The epidemiologist might regard the rats that escaped from the ship and brought the infection into the port as the cause. The historian or social critic, however, might insist that natural-scientific explanations are out of order in this situation, and that British colonialism, whose imperatives brought Her Majesty's ship to port, caused the infection. Each of these factors is, in this particular scenario, a causally necessary condition of the incidence of plague. But the question "What is responsible for this outbreak?" typically has the sense "What is the cause of this outbreak?" and to this question there is no determinate answer. The answer will vary with the interest-perspective with which one identifies.

The connection between causality and responsibility is originally both conceptual and linguistic. The word "etiology" comes from the Greek aitia, whose original usage is legal. Aitia is the sort of responsibility that the courts seek to determine. Causality is originally an anthropomorphic concept which refers to motivated intervention into an ongoing and complex situation in order to produce an outcome that would not have happened were it not for the intervention. Once the grammar of causality is understood in this manner, it is rendered perspicuous in the sort of situation that is familiar to judges and described aptly by Robin Collingwood. Consider, for example, a pattern of auto accidents that occurs at

74. The following example is from N. Hanson, supra note 11, at 192 (quoting W. Beveridge, The Art of Scientific Investigation (2d ed. 1957)).
75. R. Collingwood, An Essay on Metaphysics 304 (1940).
the same corner of a certain road: a car skids, strikes the curb, and turns over. What is the causal explanation of this pattern? Consider the following three explanations, each proffered by an explainer with a distinctive interest.

(1) A member of a group lobbying for a reduced speed limit claims that driving too fast is "the" cause of the pattern. This explainer offers data which demonstrate that if all the other conditions that obtained the moment before each accident had been held constant, and the speed reduced, the accidents would not have occurred. He offers this as conclusive evidence for the correctness of his explanation.

(2) A member of Ralph Nader's organization claims that defective design in the car is "the" cause of the pattern of accidents. He demonstrates conclusively that if all the other conditions (including the speed at which the motorists drove) that obtained immediately prior to each accident had been held constant, and the center of gravity of the auto placed lower, the accidents would not have occurred. He offers this conclusive demonstration as "proof" of the correctness of his explanation.

(3) A political opponent of the county surveyor claims that a defect in the surface or camber of the road is "the" cause of the pattern of accidents. She is able to show that if all the other conditions (including speed and auto design) that obtained immediately prior to each accident had been held constant, and the road repaved, the accidents would not have occurred. She claims that this "proves" that faulty road construction caused the accidents.

Each of these rival causal explanations focuses on a different axis of intervention. The distinctive character of each axis is a function of the specific interest that moves each explainer to put forward his or her favorite explanation. Each interest attempts to change one of the several aspects of the multifaceted factual situation in question. The concept of backgrounding is essential here. Each explainer focuses on his or her favorite causally necessary condition and segregates the other necessary conditions to the background, treating them, in effect, as second nature. They become permanent and unalterable features of the landscape and, hence, not subject to scientific manipulation. The condition that lies on the preferred axis of intervention is treated as if it were causally salient by its very nature, that is, as if its alleged causal prominence were part of the "objective" world. This assumption is built into each explainer's claim to have "discovered" "the" cause of the pattern of accidents. At the time the pattern existed, however, nothing was "the" cause of the accidents. "The" causal fact of the matter was indeterminate.

By using the Nader "defective car design" explanation, we can imagine how it might be made determinate. Nader gains wide public support, legislation is passed requiring automakers to redesign a safer car, a large campaign aimed at greater corporate responsibility gains national mo-
The relativism of causality and the indeterminacy of causality are thus linked, and both are linked to the indeterminacy of responsibility. A function of the courts is to render a determinate decision on certain types of situations that are essentially, by virtue of their embodiment of multiple and interrelated interests and causal influences, and with respect to causal explanation and the ascription of responsibility, indeterminate and contestable. The auto accident example shows how in this kind of legally exemplary case, identifications of causes and ascriptions of responsibility are inextricably linked to the adoption of certain values and the endorsement of particular interests.

We are now in a position to examine CLS's theory of legal indeterminacy, and to place it in the context of what I call a late-Modern theory of knowledge and language. We shall see that CLS's theory is an instance of a larger theory of language and knowledge that emerges from the ashes of the failure of the modern empiricist project.

V. Authority, Objectivity, and Rationality After Realism

I have discussed in Parts I-IV the historical and epistemological background against which the New Deal Realists and CLS emerged. Empiricism and falsificationism failed to justify both experience and conjecture-cum-experience as the source or sources of the cognitive authority of science. While Kuhn salvaged science's authority by locating it in the trained, informed, and experienced judgment of the scientific community, no connection existed between this mode of authority and the realist notion of objectivity that was associated with the correspondence theory of truth. "There is," wrote Kuhn, "no theory-independent way to reconstruct phrases like 'really there' . . . ."77

This conception of authority and the spuriousness of the empiricist "method" yields a notion of scientific rationality. This rationality is found in the peculiar sense in which science can be said to exhibit progress. This sense is twofold. At the level of praxis, the progress of science is displayed in the widening range of technological control it affords, and at the level of theory, progress is exhibited in the kind of historical ac-

77. T. Kuhn, supra note 39, at 206.
count that can be given of the genesis of the current settlement. The Kuhnian notion of a paradigm implicitly points to this latter conception of rationality as essentially historical. For by providing itself with problems and puzzles, a paradigmatic body of theory at the same time provides itself with goals, recalcitrances to deal with, and limitations to overcome. Thus, when one body of theory, A, claims to be superior to its predecessor, B, by rational canons of superiority—that is, by canons that make a claim to the intellectual allegiance of members of the entire scientific community—the supporters of A are claiming that A provides the ability to transcend the limitations of B by making available from A’s perspective a better explanation of B’s own acknowledged problems, puzzles, and failures than B’s resources permit it to give of itself.78 This usually involves being able to identify both exactly what it is about B that prevents it from coming to grips with its own failures, problems, and anomalies, and what it is about A that enables it to overcome these limitations. Having thus historicized the notion of rationality, votaries of A must acknowledge the likelihood that some future body of theory, C, will come to stand to A as A currently stands to B.

Objectivity, or intersubjective validity, is likewise displayed when members of the scientific community agree on the persuasiveness of a historical account like the one mentioned above. We have reconstituted our concepts of authority, rationality, and objectivity so that their conjunction is entirely compatible with the rejection of realism and the correspondence theory of truth. This undermines a conviction embedded in the marrow of the bones of the Western intellectual tradition: unless knowledge can be shown to be built upon solid foundation by the application of a universal method, there is no knowledge, for any belief will be no more and no less rational than any other, and relativism and subjectivism will be the order of the day. The idea is that something important is lost if we cannot legitimately claim that our beliefs match a fixed reality “out there.” Yet we have seen that science, conceived as what Nelson Goodman calls a “way of worldmaking,”79 merely requires that we transform our inherited standards of what counts as authoritative, rational, and objective. There is no way to “check” the validity of our language and our best current theories from some extralinguistic, extratheoretical vantage point. We cannot compare the world as it appears to us with the world as it is in itself, for we have no theory-independent and language-independent access to the latter; the world as it appears to us is

78. This formulation has been well defended in MacIntyre, The Relationship of Philosophy to its Past, in Philosophy in History 31, 43, 47 (1984).
the only world we have. If we late-Modemers take the notion of the world as it is in itself to be useful, it will have to connote some complex, specifically late-Modern meta-feature of appearances, such as their joint coherence and amenability to control and manipulation.

Die-hard realists will not be satisfied. They are mesmerized by the "knowledge-as-mirror-of-nature" metaphor. "If we cannot break out of language and theory in order to evaluate them," they ask, "how can we ever adopt a critical and corrective stance toward our convictions? Isn't antirealism a form of cognitive conservatism?" The response to this is twofold. The first response consists of a challenge: if the realist believes that there is some way to think about the world without using our language, by all means let him demonstrate it. We will not hold our breath. Second, there is the fact that criticism and correction of both practices and standards take place within the framework of the practices themselves. In a critical essay, Lakatos put it well when he said that Cartesians "were forced, almost against their will . . . to change standards of scientific proof and criticism and indeed, the very concept of knowledge . . . ." Great works of art may change aesthetic standards—great scientific achievements may change scientific standards. The history of standards is the history of the critical . . . interaction between standards and achievements. Our theory (language) can be exercised to criticize and develop itself, just as one exercises one's body to strengthen, develop, and enlarge it.

80. My point here recapitulates in modern form a premodern conception of knowledge as a form or unity, participation, and merger. For Plato, the mind participates in the forms; for Aristotle and Aquinas, the passive intellect literally becomes the form of the things known. Hints of this conception are found in current usage when we take the epistemically desirable relation between appearance and reality to be identity. What we want is what appears to us to be the real world. This is evident in the classical Aristotelian/Thomist definition of truth as adaequatio intellectus et rei, or adaequatio intellectus ad rem, which is typically mistranslated as something like "the adequacy or representative fidelity of the intellect to the thing." Adequeutio, however, means just what it looks like: ad-aequatio, or equal to. The premodern conception of truth implies an identity, not a correspondence, of the intellect and the thing. My own construction of "identity" in this paper is kind of Hegelian Aufhebung of the Thomist idea.

81. Strictly speaking, it is propositions that cohere and things and situations which are subject to control. This is not problematic, however, because we may choose for some purposes, e.g., of control, to talk about appearances in the object language, and for other purposes, e.g., of reflection on meaning and truth, to talk about them in the language language. Physicists, after all, talk about light for some purposes as if it was made up of particles, and for other purposes as if it was waves. The question as to what light "really" is bores physicists.


83. Id. at 201.

84. R. Rorty, Consequences of Pragmatism xix (1982).
We are left detached from the world conceived as external, fixed, and ontologically independent of our cognitive and technological praxes. We use language as a tool rather than as a picture, as Rorty has emphasized, and we use it collectively to cope both with our nonhuman surroundings and with one another. Legal discourse is one of our principal instruments for the latter purpose. We use legal discourse for dealing with one another in a world in which rival interests, projects, and senses of self are at the heart of those conflicts that matter the most. The linguistic-theoretical instruments of legal discourse are of course rules, principles, statutes, and precedents. The sort of detachment these possess—detachment from a not-already-legally-interpreted world of "facts"—means that there is no hook-up mechanism internal to the instrument itself that links the latter to its allegedly fitting factual object. This is what CLS calls the indeterminacy of the law.

VI. LANGUAGE AND THE WORLD: CUSTOM AND CONCEPT IN LATE MODERNITY

Legal indeterminacy leaves us with three kinds of resources in our legal intercourse with one another: judges, laws and precedents, and a range of rival and incommensurable interests, desires, and projects. The New Deal Realists maintained that judges falsely claimed that laws and precedents whose meaning was on the whole clear could be read and applied to factual situations with the aid of the formal, universal tools of logical (deductive) reasoning. The result was claimed to be a just outcome. The Realists countered that indeterminacy precluded anchoring judicial decisions in purely legal reasoning and argued instead that sociological factors—the interests, desires, and values of a particular judge—were the predominant causal factors in the production of essentially arbitrary legal outcomes. There was no suggestion that legal reasoning was primarily motivated by a particular sociopolitical interest that necessarily influenced all judges and indeed animated the legal system as a whole. CLS departs from Realism on this matter and argues that the primum mobile of both the legal system and the overall drift of legal reasoning is the ideological, or false, legitimization of capitalist hegemony. With respect to the law, politics abhors a logical vacuum. The insufficiency of purely legal/logical reasoning to determine the application of legal rules invites not arbitrariness, but the sociopolitical interest that carries the greatest weight in modern liberal societies to assert its predominance throughout the law. For CLS, this interest is the interest of capital. 88

I shall not discuss the details of CLS’s neo-Marxist analysis of the institutional structure of liberal individualist societies. Instead, I shall focus on the epistemological significance of CLS’s doctrine of indeterminacy, which, I shall argue, must be understood in the light of our current best theories of language, theories the implications of which bear on much more than the law. 

Like its Realist forebears, CLS rejects “formalism” and “objectivism.” Judicial decisions are not rationally (that is, formally and therefore objectively) determined in the proper framework of legal institutions by the application of the relevant legal rules and principles. In defense of this claim, CLS does not appeal directly to a sociology of judicial decision-making or to a political economy of liberal individualist society. It leans heavily on a theory of language borrowed from contemporary literary theory, French structuralism, and Critical Theory. This linguistic theory begins with an analysis of the meaning of words and infers from it critical conclusions about the status of rules in the law. With respect to words, CLS denies that words have intrinsic meaning, that they stand for a fixed connotation, sense or semantic quasi-essence. I will call this a rejection of “meaning realism.” Whatever sense words have, CLS argues that this sense is malleable and internally related to context. This is what the indeterminacy of language comes to. From this, it is claimed, a theory of rules follows, which states that because rules also lack inherent or intrinsic determinate meaning they are not self-applying. Thus, it is misleading to say that “rules apply to factual situations,” as if a rule itself were a kind of nomological quasi-Aristotelian nature essentially disposed to clamp itself onto the fitting or corresponding factual situation. On the contrary, rules are applied to factual situations, and they are interpreted. The point is that there is nothing about the “nature” of the rule that determines its next application.

Linguistic indeterminacy, then—and a fortiori legal indeterminacy—is a function of the contextual constitution of (semantic) sense. Duncan Kennedy has argued that this results in the permeation of legal rules with irresolvably opposed moral principles and ideals. For the context of language, society is composed of people who “are divided, among ourselves and also within ourselves, between irreconcilable visions of humanity and

89. Kennedy, Form and Substance in Private Law Adjudication, 89 Harv. L. Rev. 1685 (1976) [hereinafter Form and Substance].
society, and between radically different aspirations for our common future." Since these "irreconcilable" principles and ideals are reflected in the normative dimension of legal rules, judges must produce determinate decisions that are not prescribed by the law as such. Thus, it is not atypical for judges to be faced with decisions in which rival authoritative principles are applicable, such as "A person should not be held liable unless he was at fault" versus "As between two innocents, the one who caused the harm should pay." CLS, then, acknowledges the fundamental moral incommensurability, whose historical and cultural genesis and contemporary salience I have discussed, and identifies it as the root of legal indeterminacy.

Ronald Dworkin, in a celebrated defense of the "rule of law" tradition, acknowledges that legal rules are often in competition, but distinguishes between legal rules and the moral principles that infuse them. Dworkin claims that it is the latter that judges invoke when the indeterminacy of rules threatens judicial impasse. He acknowledges that this recapitulates the incommensurability problem at a higher level of principles. He then proceeds to provide a decision procedure for judges confronted with the question: Which one of the conflicting moral principles in this case is legally binding? According to Dworkin, those principles that are legally binding, are the ones that belong to "the soundest theory of the settled law." The "settled law" has a notably Kuhnian character, because it consists of those rules and doctrines that are either consensually validated as authoritative by the legal community, or would be consensually validated. As I mentioned before, the settled law embodies morally-cum-legally paradigmatic principles. The "soundest theory" of the settled law is a kind of meta-principle, the most cogent moral and political theory that justifies the rules constitutive of the settled law. The soundest theory, then, functions as a standard enabling judges to assign relative weights to each of the rival rules. The rule that carries the greater weight determines a determinate and correct legal outcome. That Dworkin's position wants to be a form of legal objectivism is evidenced in the strategic role played in it by the settled law. This functions as a "legal fact of the matter" by reference to which otherwise indeterminate rules may be employed to produce a determinate outcome.

90. Id. at 1685.
91. For an excellent extended discussion of these issues, see Altman, Legal Realism, Critical Legal Studies, and Dworkin, PHIL. & PUB. AFF. 205 (1986), to which I am indebted in my discussion of Dworkin.
93. Id. at 67-68, 79, 340.
94. I shall not dwell on this key ambiguity.
95. See supra text accompanying notes 37-38.
Two responses are apposite here. Kennedy has issued the characteristic CLS challenge: by all means provide such a metaprinciple for our inspection. The challenge is rhetorical, because no such metaprinciple has been forthcoming, and none is expected. Dworkin’s position amounts to a mere assertion that legal commensuration is possible. I have argued that in a culture such as ours no argument is available in support of Dworkin’s assertion.

A second response brings us closer to the heart of the larger philosophy-of-language issues at stake in this debate. This response develops the contextualist theory of meaning we have seen Kennedy defend, which is, in effect, a theory about statements about meanings. The theory may be stated as follows: there is no fact of the matter that provides a truth value for statements about meanings. CLS’s position that there are no legal facts of the matter that render otherwise indeterminate rules amenable to determinate application is an instance of the above formulation. We may call this formulation a rejection of realism with respect to meaning, and its cardinal proponent is Willard van Orman Quine. We must look more closely at Quine’s position. The following treatment focuses on Quine’s doctrines of the indeterminacy of translation and the inscrutability of reference.

We have seen that the history of science is replete with examples of competing theoretical descriptions of the same “facts” (or the “same” facts). Let us generalize this phenomenon to a more fundamental thesis about the relation of language to the world. I begin with what Quine calls “radical translation,” which occurs when a field linguist attempts, without the aid of interpreters, to compose a manual for the translation of an entirely unknown language into his own. The natives are observed to utter ‘gavagai’ whenever a rabbit is present. How will the linguist translate ‘gavagai’? There are several possibilities:

1) There is a rabbit.
2) There is an undetached rabbit part.
3) There is a stage in the history of a rabbit-process.
4) There is an instance of rabbithood.

96. *Form and Substance*, supra note 89, at 1724.


99. *Id.* at 51-52; W. Quine, *Ontological*, supra note 97, at 30-33.
5) That portion of space is ten feet to the right of a spot ten feet to the left of a rabbit (undetached rabbit part, rabbit stage ...).\textsuperscript{100}

Each of these translations is equally consistent with the speech dispositions of the natives and the behavior dispositions of both the natives and the rabbits. Each is an account for all the available evidence. The translations are empirically equivalent but logically incompatible. There is no fact of the matter as to which translation is uniquely correct.

A. The Indeterminacy of Rules and the Case Against Meaning Realism

Quine's argument reminds us, implicitly, that translation is logically prior to meaning: to learn the meaning of an alien utterance one must translate it into one's own language. It is implicit in the notion of meaning, therefore, that meaning is what all and only its correct translations share. Quine has argued, however, that there is no fact of the matter as to which of several nonsynonymous translations of a term is the correct one: the question as to which is the correct translation has no determinate answer. By virtue of the logical posteriority of meaning to translation, the question as to what a term means is also not an objectively determinate question. In a nutshell, this is Quine's case for the indeterminacy of meaning; it is the case against meaning realism.

If we must give up assurances of determinacy with respect to meaning, we cannot consistently retain determinacy of reference. Quine's doctrine of the inscrutability of reference tells us that when one utters any word in any language, the ontological commitment that one incurs is not determined by an objective fact of the matter. This is a thesis about language as such; it is not restricted to efforts to translate a foreign idiom. Quine avers, "[r]adical translation begins at home."\textsuperscript{101} So rabbit in my own mouth can be systematically and consistently interpreted by me to be true of rabbit parts, rabbit stages, or a spot ten feet to the right of a rabbit. What I mean is as indeterminate to me as it is to an "external" observer of my utterances. The counterintuitive feel of this claim is due entirely to the mistaken conviction that there is "direct," namely, extra-linguistic, access to mental reality. There is no objective fact of the matter about what anyone is talking about. And this applies both to our talk of what we ordinarily think of as the external world and to our purported references to our inner life, our thoughts, beliefs, desires, and motives.

Realism is the epistemology of common sense. Originally, we cannot help but believe that the sun literally rises and sets and that our local customs belong to the natural order of things. Even when we know better,

\textsuperscript{100} W. QUINE, WORD, supra note 97, at 51-52; W. QUINE, ONTOLOGICAL, supra note 97, at 31-33.

\textsuperscript{101} W. QUINE, ONTOLOGICAL, supra note 97, at 46.
our senses conspire to seduce us from the truth: the contemporary astronomer sees what he would see if Ptolemy were right. With respect to the rightness of a given translation manual, therefore, Quine's claim that there is no "objective matter to be right or wrong about" sits ill with us.102 We are inclined to think that were we to inquire further, to ask more questions of the alien language users, we could sharpen the focus of reference of terms like 'gavagai' to the point, finally, at which the natives' ontology becomes understandable. We want to employ "the English apparatus of individuation—the apparatus of pronouns, pluralization, identity, numerals..."103 to fix reference: Is this the same gavagai as that? Is there one gavagai here or two? But it is ontological commitment that determines the interpretation of putatively individuating terms like "same," "different," "one," and "many." The question, "Is this the same gavagai as that?" could have the sense, for the native, of "Are these stages of the same rabbit-process?" The lesson here is philosophical and pragmatic, not skeptical. An actual field linguist would, unobjectionably, equate "gavagai" with the most "sensible choice" in her own language.104 She would have no practical alternative but to assume the interpretation of the world already given in her understanding of her language. Her maxim of choice guiding her selection of "rabbit" rather than "stage of a rabbit-process" or "instance of rabbithood" or "portion of rabbit-stuff" (like "piece of wood" or "drop of water") is that "an enduring and relatively homogenous object, moving as a whole against a contrasting background, is a likely reference for a short expression."105 Quine's point is that "the maxim is [her] own imposition, toward settling what is objectively indeterminate."106

That radical translation can in fact go amiss over the long run is evidenced by Captain Cook's sailors' capture of a kangaroo on their voyage to Australia.107 No one knew what the creature was, so Cook sent some sailors to ask the natives. The men returned with the information: "It's a kangaroo." Many years later it was discovered that the natives' response to Cook's mens' query was "What did you say?"108

This is the broader linguistic theory within which the philosophy-of-science analysis in Parts III and IV and the CLS doctrine of legal indeterminacy must be located. The thesis implicit in the analysis of Parts III

102. W. Quine, Word, supra note 97, at 73.
103. W. Quine, Ontological, supra note 97, at 35.
104. Id. at 34.
105. Id.
106. Id.
108. Id.
and IV is well described by Quine's summary of the difference his analysis of linguistic indeterminacy makes to the philosophy of science: "[T]he systematic structure of scientific theory is manmade. It is made to fit the data, yes, but invented rather than discovered, because it is not uniquely determined by the data. Alternative systems, all undreamed of, would have fitted the data, too." To see this concretely illustrated, substitute "light" for "rabbit"; "light waves" for "undetached rabbit parts" and "light particles" for "rabbit stages" in Quine's statement:

If you take the total scattered portion of the spatio-temporal world that is made up of rabbits, and that which is made up of undetached rabbit parts, and that which is made up of rabbit stages, you come out with the same scattered portion of the world each of the three times. The only difference is in how you slice it. And how to slice it is what ostension or simple conditioning, however persistently repeated, cannot teach.109

The philosophy of language expressed in the claim that the evidence provides no grounds for a choice between empirically equivalent but semantically incompatible translation manuals is the broader matrix that underlies and ultimately renders inescapable the meta-scientific and meta-legal doctrines that empiricism cannot explain scientific theory choice, and that neither rules and principles, nor fact situations, nor their combination determines the interpretation of the law. The door is open to the socio-political and historical analysis of theory choice and rule application. The historically contingent interests, goals, practices, and projects that characterize a particular culture and its professional communities comes into the foreground of analysis. This is the sense in which theory is underwritten by praxis.

A very different kind of point can be made about the larger epistemological significance of the indeterminacy of translation, meaning, principles, and rules. The tone of the analysis thus far has been a typically modern one: there is nothing of custom or tradition, nor is there anything transhistorically and cross-culturally abiding in the epistemological picture I have painted. Yet there are reflections, in the most general form of our knowledge, of the roots of our knowledge in our embodiment, in our natural-historical animality. To appreciate this feature of our epistemological condition we must turn to the greatest of twentieth century philosophers: Ludwig Wittgenstein.

I want to introduce Wittgenstein in the context of developing further an aspect of the Kuhnian concept of paradigm to which I alluded briefly

110. W. Quine, Ontological, supra note 97, at 32.
earlier. Recall that there is both a theoretical and a praxical dimension to a paradigm. The former consists of the theoretical assumptions and explicitly stated laws presupposed by research scientists; the latter are the standard ways of applying these laws and theories to various types of situations in such a way as to produce a concrete outcome regarded by members of the scientific community as an exemplary achievement. It is unmistakable that paradigmatic achievements stand to theoretical paradigms in science as precedent stands to law or statute in the law. Both science and the law exhibit comparable indeterminacies. Their universal formulations (theories, laws, statutes, rules, and principles) do not include criteria for their own application, and this requires that there be exemplary instances of correct application that are consensually validated by the professional communities and which guide, namely give determinate direction to, ongoing practice. A central theme of The Structure of Scientific Revolutions is that the scientific community is distinguished by its members' collective commitment to a particular way of doing science, exemplified in certain accepted examples of actual scientific practice that cannot be regarded as the necessary outcome of the logical extension of established paradigmatic theories and laws. In the law, precedent functions similarly, namely, as an accepted example of actual legal practice. More specifically, it functions as an actual instance of the accepted way to apply a rule in a concrete situation. The precedent is no more a logical extension of established legal principles than an exemplary scientific achievement is produced by logical deduction from paradigmatic theories.

The general epistemological condition described is obtained wherever human beings seek understanding, explanation, and practical guidance by means of the formulation and employment of appropriate generalizations. That all systematic cognitive and praxical activity must require generalizations in the form of principles, rules, and laws is widely known and not generally disputed. What has received much less attention are the implications for the nature of human knowledge and action of the fact that the required generalizations do not supply criteria for their own application. Generalizations are not internally connected to the world with which they would enable us to cope. This requires, in every domain of cognitive and praxical endeavor, something comparable to exemplary achievements.

111. See supra text accompanying notes 37-38.
113. For a closer explanation of the requiredness of generalization in scientific knowledge, see B. Schwartz & H. Lacey, Behaviorism, Science, and Human Nature 3-6 (1982). The kind of generalization required in the study of human action is very different. On this, see MacIntyre, The Intelligibility of Action, in Rationality, Relativism and the Human Sciences 63-80 (J. Margolis, M. Krausz & R. Burian eds. 1986).
in science and precedent in the law. This requirement of human activity is, I shall argue, essentially premodern, indeed precognitive. It is rooted in certain animal propensities of ours without which the competent employment of generalizations, principles, rules, and laws would be impossible. I am referring to the role of custom and tradition in our cognitive and praxical activities.

Paradigmatic achievements and precedent guide action in science and law in much the way custom guides action in traditional communities. In each of these three cases, the word of authority is made flesh in concrete traditions that cannot be effectively recapitulated in rules or any other form of putatively determinate instruction. The praxical know-how embodied in customs and traditions cannot even be written down, and therefore, in Oakeshott’s words, quoted earlier, “[it] can neither be taught nor learned, but only imparted.” This kind of knowledge, Oakeshott says, is expressed in “a customary or traditional way of doing things . . . it exists only in practice, and the only way to acquire it is by apprenticeship to a master—not because the master can teach it (he cannot), but because it can be acquired only by continuous contact with one who is perpetually practicing it.” What does it mean to say that the master cannot teach this kind of knowledge (or, as I shall prefer to call it, competence)? And what lessons are to be learned from this about the dynamics of knowledge and its acquisition?

Wittgenstein’s story of the deviant mathematics student teaches us much about this. It occurs in the context of a larger discussion of “knowing how to go on,” for example, knowing how to continue a series that has been begun by one’s instructor. The student is instructed to continue a series of cardinal numbers (say 2) beyond 1000, and is presented with “2,4,6,8 . . .” as a start. The student proceeds as follows: “2,4,6,8,4,6,8,10,6,8,10,12 . . . ” The teacher, of course, intends the student to go on this way, “2,4,6,8,10,12,14,16,18 . . . ,” and attempts to correct the student by guiding his hand in the production of the preferred continuation. At this point in the story, Wittgenstein would draw attention to our inclination to think that there is something the student has not understood; that he has not seen how the 2 rule compels him to continue the series the teacher’s way and no other. That is, we think that the student is in need of further mathematical instruction in order to help enhance his comprehension of what the rule prescribes. We are realists

114. M. Polanyi, supra note 73, at 20.
about the "meaning" of the rule, which we identify with *what the rule enjoins*. Wittgenstein would disabuse us of all these notions: the student's failure is not a failure of understanding; were the student to succeed in continuing the series "correctly," that would not be "based" on his having understood the requirements of the rule. It would not be based on his having understood *anything*. There is no objective requirement, inherent in the rule itself, that directs any determinate continuation, and so whatever further instruction the student needs has nothing to do with *mathematics*. Getting it right, in this sort of case, does not consist in doing what the rule prescribes; it consists in doing what the teacher says. It is clear to the reader at this juncture that Wittgenstein's story provides a more elemental and more comprehensive example of exactly the kind of indeterminacy of legal rules to which CLS calls our attention. But we will have understood neither Wittgenstein nor CLS before we have understood what is "elemental" and "comprehensive," with respect to human knowledge, about the lesson Wittgenstein would teach us.

The student has continued "2,4,6,8 . . ." this way: "2,4,6,8,4,6,8,10,6,8,10,12 . . ." The instructor insists on "2,4,6,8,10,12,14,16,18 . . ." as the correct way to go on. The student replies, "I thought that was how I was meant to do it . . . I went on in the same way." Now the student's way of going on is *no less mathematically consistent a way of proceeding* than is the teacher's. "2,4,6,8" is as mathematically integral a component of "2,4,6,8,4,6,8,10,6,8,10,12 . . ." as it is of "2,4,6,8,10,12,14,16,18 . . ." There is no mathematical rule such that knowing it well enough and applying it consistently determines one continuation rather than another. The student's series is no less *rational* than the teacher's. Still, in this case we have no doubt, nor does Wittgenstein, that the student has failed to acquire an aspect of mathematical competence, that he has failed to follow a rule successfully. In what does this failure consist? It does not consist in failing to *see* or *comprehend* or *intuit* something. The student has failed to acquire a *habit of obedient imitation*. The liability to acquire such a habit is in fact an animal response to training, one of the "extremely general facts of nature." In another work, Wittgenstein says about his position on following a rule, "What we are supplying are really remarks on the natural history of man.""119

It is repugnant to the Western intellectual tradition to think of an achievement as "intellectual" as learning how to continue a mathematical series as being based on something fundamentally animal, that is, on a

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117. *Id.* at 75.
118. *Id.* at 56.
capacity of ours that does not distinguish us from other animals. Wittgenstein believes there is great resistance to this truth. I believe Wittgenstein was right about this, and I want to pursue the example further. Suppose that, after more “explaining” and cajoling by the teacher, the student finally writes “2,4,6,8,10,12,14,16,18,20,22 . . .” right up to 1000. He then continues “1000,1004,1008,1012 . . .” In an effort to help the student see his mistake, the teacher then directs the student to compare the way he continued the series past 1000 with the way he continued it past 100. “Don’t you see the inconsistency?” the teacher asks. The student insists he “went on in the same way.” Wittgenstein comments on this: “In such a case we might say, perhaps: It comes natural to this person to understand our order with our explanations as we should understand the order: ‘Add 2 up to 1000, 4 up to 2000, 6 up to 3000 and so on.’”120 This helps us to see how it might be possible to regard the student’s claim that he is going on in the same way as rational.

Wittgenstein says that this case is similar to one in which “a person naturally reacted to the gesture of pointing with the hand by looking in the direction of the line from finger-tip to wrist, not from wrist to finger-tip.”121 We feel that there is something about the pointing itself that determines the direction in which to look. This feeling is most prominent with respect to perception of a sign-post, say an arrow figure.122 Yet the arrow points in the direction in which we normally take it to point only because that is the direction in which we normally take it to point! There is a custom, a social habit of reacting to sign-points in a regular way; to learn how to use, namely, how to react to, a sign-post is nothing more than to imitate what is done. And this has nothing to do with “grasping” the internal “meaning” of the sign. “To obey a rule, to make a report, to give an order, to play a game of chess, are customs (uses, institutions).”123 So it is for a student to learn how to continue “2,4,6,8 . . . .” The instructor simply directs the student in a course of imitation. The rule, like the sign-post, just “stands there.”124 Neither can account for its apparent power to direct action in a determinate and regular fashion.125 “[W]hat has the expression of a rule—say a sign-post—got to do with my actions? What sort of connexion is there here? - Well, perhaps this one: I have been trained to react to this sign in a particular way, and now I do

120. PHILOSOPHICAL INVESTIGATIONS, supra note 116, at 75 (emphasis in original).
121. Id.
122. Id. at 39-40.
123. Id. at 81 (emphasis in original).
124. Id. at 74-75.
125. See J. EDWARDS, THE AUTHORITY OF LANGUAGE 183 (1990) for a lengthy treatment of this aspect of Wittgenstein’s thought.
so react to it.” Wittgenstein wants us to think of teaching someone to use a rule, to continue a series, or to follow a sign-post the way we think of teaching a dog to fetch slippers. We don’t explain, we train.

The trainer is able to impart to the trainee the skill or competence in question only because she possesses it herself. Wittgenstein seems to think that this most fundamental, primal form of teaching is the original locus of authority in human life. The Western philosophical tradition barks up an altogether different tree. It would ground authority in reason. Otherwise, that this is the correct way to go on would lack justification, it would be arbitrary and subjective. (Does the dog’s ability to fetch slippers rest on reason, a rational comprehension of the rule or command? If not, does this make the dog’s behavior “arbitrary” and “subjective”? Does it make the dog’s obedience “unjustified”? What could “unjustified” mean here?) For Wittgenstein, that the teacher’s authority is legitimate and that this is the correct way to go on—here “objectively” correct—would be redundant; “objectively” in this kind of case comes to mean the same as “correctly”—depends neither on “rational” processes nor on grasping the “meaning” of the direction nor on intellectualization of any kind. The meaning of any rules, directions, or guidelines the teacher gives the student consists in the (brute) fact that they are applied just that way. This is the original, primal instance of CLS’s dictum that the “rules do not apply, they are applied.” Whatever authority attaches to the rules derives from the authority of the original appliers, be they the teachers of the earliest, most elemental rules, the paradigmatic interpreters of the Constitution, the Supreme Court, or the scientific community.

Wittgenstein anticipates the mentalistic and intellectualistic philosophical embouchure that resists his position: “Perhaps you will say here: to have got the system (or, again, to understand it) can’t consist in continuing the series up to this or that number: [T]hat is only applying one’s understanding. The understanding itself is a state which is the source of the correct use.” It is as if the rule were a mental template or formula that represents in advance the results of its own correct use, as if the formula mapped out a railway “invisibly laid to infinity.” This is supposed to be what “goes on in the mind” when we learn a rule. Wittgenstein rejects this picture of learning and understanding as a mental process, for it implies that knowing how to apply the rule is evidence of understanding, as if one infers from “outer” behavior the existence of the

126. PHILosophICAL INVESTIgATIONS, supra note 116, at 80.
127. Id. at 58.
129. PHILosophICAL INVESTIgATIONS, supra note 116, at 85.
“inner” understanding. But “application is . . . a criterion of understanding.”

The difference between evidence and criterion is crucial. In basketball, when the scoreboard registers two points, or when the crowd reacts in a certain way, that is evidence that a basket has been scored. Whenever A is evidence of B, each is independently observable. This is not the case when A satisfies a criterion of B. When one sees that a ball has been shot or tipped through the hoop, one sees eo ipso that a basket has been scored. “It may be said: ‘The way the formula is meant determines which steps are to be taken.’ But what is the criterion for the way the formula is meant? It is, for example, the kind of way we always use it, the way we are taught to use it.”

The formula is the formula that it is, namely means what it means, only with respect to some consistent practice of application. That is why the mathematics teacher’s explanations to the student who goes on consistently but incorrectly can never be intrinsically and perfectly unambiguous. The essential indeterminacy of the formula is such that the latter admit of many different applications, and no mathematical instruction is sufficient to direct the student to one of them.

“[G]iving grounds . . . comes to an end, . . . the end is not certain propositions striking us immediately as true; i.e., it is not a kind of seeing on our part; it is our acting, which lies at the bottom of the language-game.”

“How can he know how he is to continue a pattern by himself—whatever instructions you give him?—. . . The answer is: [his] reasons will soon give out. And then [he] shall act, without reasons.” It is not that we react properly to training because we have (first) understood. On the contrary, our understanding, at this basic level, consists in our reacting correctly.

The brute fact is that most pupils will react correctly to this kind of training. It comes natural to most pupils to continue the series the way the teacher did. Wittgenstein wants us to think of following and applying rules and principles as a natural custom, a practice that is at bottom rooted in our animality, in our proneness to obedient imitation. “Following a rule is analogous to obeying an order.” Wittgenstein thinks that our mature intellectual activities, such as doing science and practicing the law, are more complex and elaborate developments that embody at their roots, and as a condition of their possibility, the animal habitue exhibited most directly in the young pupil’s ability to master those physical

130. Id. at 58 (emphasis added).
131. Id. at 77.
133. Philosophical Investigations, supra note 116, at 84.
134. Id. at 82.
routines of appropriate imitation and continuation that make up the various competences required of novice inductees into the human community.

The introduction to the discussion of Wittgenstein noted that the argument up to that point painted a picture of human knowledge and its construction that was typically modern: it contained neither a customary nor a transhistorical, cross-culturally pervasive element. Wittgenstein teaches us how very serious this omission is. It blinds us to the source of the authority of both science and the law, and, more fundamentally, of language itself, whose most basic form is embedded and exhibited in the forms of scientific and legal understanding or knowledge. The linguistic form to which I refer is the form of generality.

In both our theoretical and our praxical endeavors we cannot do without instruments of generality/universality. In all of our practices, from our day-to-day activities with their attendant folk understandings, to our practices of logic and mathematics, of science and of the law, we are required to sort, to group, to categorize, to recognize similarities, to attend to regularities, to note connections between this and that kind of thing, and to provide explanatory accounts of what engages us. That is, we are required to wield concepts, theories, laws, rules, and principles. Without instruments of generality such as these, we are unable to negotiate and cope with the world. Science and the law are among our most powerful and effective means of interpreting and changing the world, and each employs, for its distinctive purposes and in its distinctive way, concepts, theories, laws, rules, and principles. What Quine and Wittgenstein teach us is that these instruments are indeterminate and hence praxically useless by themselves. What CLS says about legal rules is true of all these general instruments: they do not apply, they are applied. CLS draws from this the conclusion that historically specific social and political interests are required to direct the application of these general instruments. Kuhn and Wittgenstein show that something more is required, namely, that these contingent interests must be embedded in something abiding and settled, something whose role in our institutions of knowledge-production is analogous to the role of custom and tradition in those cultures where custom and tradition are embedded in and constitutive of an ongoing way of life. And Wittgenstein reminds us that the requisite of a central role for custom in our lives is rooted in certain animal responses of ours which are a sine qua non of our acquisition of competence of any kind, praxical and cognitive.

These primitive habits of reacting appropriately to training, namely of imitating our trainers and continuing correctly, are the primordial instances of both generality and custom in human life. And they are not mental or conceptual. They are physical routines, and it is their character as routines, as going on in the same way, as uniformities of practical application, that makes them generality incarnate. This philosophical
conceit strikes at the very heart of the Western philosophical tradition, which makes a sharp distinction—and in the case of Plato, Augustine and Descartes, a sharp separation—between the mental and the physical, the ideal and the material, and locates the sources of intelligibility, rationality, knowledge, and language in the ideal. For the Platonic-Cartesian tradition it is the concept, a mental entity, that captures meaning and essence, and hence it is the concept that underwrites language and represents what is intelligible about the world, what makes it possible to think about, talk about, and understand the world. But Quine has shown that there are no meanings, no determinate essences, neither conceptual nor ontological, to think or talk about.135 Hence, Wittgenstein’s employment of Goethe’s variation on the opening words of St. John’s Gospel: Im Amfang war die Tat in the beginning was the deed. Language and its ideal instruments of generality are posterior to, a “refinement” of natural imitative reaction: “First there must be firm, hard stone for building and the blocks are laid rough-hewn on one another. Afterwards it’s certainly important that the stone can be trimmed, that it’s not too hard.”136 In the beginning was custom, not concept, training, not explaining.

To return to science and the law: In the beginning were the paradigmatic achievement and precedent. In both Kuhnian philosophy of science and the law there may be the impression that paradigmatic principles and legal rules come “first,” after which exemplary achievements and precedents are identified. This is a harmless way of thinking, provided it is remembered that these scientific principles and legal rules have no determinate content prior to their embodiment in an achievement or precedent. We may even say that these principles and rules animate the exemplars, as are as were their souls, provided we think of the relation of soul to body in an Aristotelian rather than a Platonic-Cartesian way: soul is to body as sight is to eye. A “besouled” or sighted eye is simply a properly functioning eye. There is no presumption that the sightedness of the eye can be detached from the eye and retain a determinate, real form, any more than one imagines proper functioning to be the sort of thing that can be detached from the eye—from anything that may be said to have a proper function—and subsist on its own. The (determinate) reality—as opposed to the (indeterminate) ideality—of paradigmatic principles and legal rules is to be found in the ongoing functioning or usefulness of their

135. For an impressive case against the notion of essential attributes, see W. QUINE, FROM A LOGICAL POINT OF VIEW 20 (1961).


exemplary embodiments. And since the scientific principles and legal rules in question have a paradigmatic status, their ongoing functional embodiment must take the form of custom.

B. The Roots of Generality in Custom

I suggested earlier that the primitive habit of imitative reaction to training is the primordial appearance of both generality and custom in human life. I want now to dwell on the customary character of natural imitative obedience, and to identify its significance for legal theory. Part of what it means to call this reaction "natural" and "primitive" is to highlight its non-elective nature. We do not choose to react imitatively to training, we just do. The most basic kinds of characteristically human endeavors, practices found in all cultures, exhibit as a condition of their reproduction this natural human reaction. Among these practices are: Punishing certain actions, describing the appearance of objects, giving orders, asking questions, submitting reports, taking an interest in the feelings of others, making jokes, and play-acting. Wittgenstein sometimes calls these "language-games," sometimes "forms of life," sometimes "facts of living." About them he says "What has to be accepted, the given, is—so one could say—forms of life."138 In his last writing he says "The language-game is so to say something unpredictable. I mean: it is not based on grounds. It is not reasonable (or unreasonable). It is there—like our life . . . . There is something universal here; not just something personal."139 Both our natural imitative reactions and custom share these same features: they are "just there," as part of the given landscape, and they transcend the individual and the personal: "When I obey a rule, I do not choose. I obey the rule blindly."140 More notably, we all respond "blindly" in the same way. Our species exhibits a community of sensibility and reaction. Here is, in effect, Wittgenstein's response to Hobbesian-Lockean Modern social contract theory, which has original individuals opting for social life, and ratifying this contractually in order to escape the hazards of the "state of nature." Wittgenstein shows that there are no original individuals; we are from the beginning in synch, mimics ensemble. It is custom, not contract, that constitutes, simultaneously, our sociality, our language, and our abilities to engage in scientific and legal practices.

Custom can be identified at three levels in human life. At its most basic and rooted level, it appears as the homogenous (across cultures) habit of imitation that enables competence of any kind. Its authority is found in

139. On Certainty, supra note 132, at passages 559, 440.
140. Philosophical Investigations, supra note 116, at 85.
"the natural history of man." At a higher, less biological level, it appears as what we ordinarily call custom, the structure of inherited traditions shared by a culturally unified population. We may think of this second level as somewhat "thinned out" relative to the first: custom in this sense is heterogenous between cultures. That there is custom in this sense is as "given" by nature as imitative habitude is, but the specific content of a given network of custom is a product not of "the natural history of man" but of social and cultural evolution, and derives its authority from what we ordinarily call "history" or "tradition." Finally, there are the customary practices of attempting to understand and cope with nature, whose post-medieval practices is called "modern science," and of attempting to monitor in a more-or-less rule-governed, regular way what persons owe one another, what is due a person from others, whose modern form is called "the law." That there are these generic "forms of life" is as naturally given as "basic and rooted" custom. These ubiquitous forms of life, then, also find their authority in "the natural history of man." But the specific forms these practices take at a certain period in their histories cannot be taken as given, either by the natural-historical, or the social-historical process. The source of their authority is accordingly problematic. Parts I and II of this essay attempted to show why the disintegration of shared beliefs, values and ways of life, with the loss of a teleological cosmology, and the emergence of individualistic, competitive and pluralist forms of socioeconomic and political organization, created crises of epistemological and moral authority. Authority thereafter was no longer "what has to be accepted—the given . . . [just] there—like our life," but was required to be chosen. In science, both paradigmatic principles and their effective incarnation in exemplary achievements are chosen by the professional community, motivated in the final analysis by interests and values not derivable from science itself (just as the standard meter, say the platinum-iridium bar, is not established as paradigmatically one-meter-long by measuring it). With respect to the law, it is the same, and it is importantly different.

In the law, paradigmatic principles are not chosen. The principles of individual rights, non-interference, and equality before the law evolved; they were transmitted to us by the same social-historical process that gave us liberal individualist society and culture. No one chose to "set up" modern capitalism. But the interpretation of these principles, their incarnation in exemplary precedents, is chosen in the ultimate case by the Supreme Court. The indeterminacy of these principles requires that their interpretation be motivated by interests and values not derivable from the law itself. I suggested earlier that the institution of the Court, and the precedents it establishes, needs, by the nature of legal indeterminacy and the requirement that practitioners be able correctly to say that they are "going on the same way," to have an authoritative role in our common life
analogous to the abiding and settled role of custom in pre-modern cultures. The upshot of CLS’s analysis, and of the larger framework within which I have tried to situate CLS, is that the law can have this role in late-modern cultures only in a bent and perverted form. For the fact situations to which the law applies are, as I argued at length earlier, multifaceted and composed of constituencies whose perspectives are essentially conflicted, oppositional, and incommensurable with respect to interests, values, and sense of self. This sharply distinguishes legal fact situations from the inanimate states of affairs to which scientific principles are applied. These are indeed multifaceted, but not multi-perspectived. They present to the scientist no political opposition, but merely logical overdetermination with respect to paradigmatic principles. Legal precedent, then, cannot have the stable and uncontested character of its scientific counterpart, paradigmatic achievement. Precedent is never “[just] there—like our life,” but is bound to be challenged, denied and struggled against. What we see is an historic clash between those inescapable elements of customariness that must persist into Modernity by virtue of their constitution of the conditions of the possibility of theory and praxis, and a conspicuously counter-customary and definitive institution of Modernity, democracy. Democracy is as universal and contagious an institution of Modernity as are capitalism and modern science. In the long-run, no population or interest group will fail to claim increasing democratic entitlements. The judiciary becomes, in these cultural circumstances, an essentially contested instrumentality. Roe v. Wade and its aftermath is the future of Modern legal precedent writ small.

What is “customary” in late-Modern law is the abiding and settled presence of ongoing conflict, contestation, and political struggle. Late Modernity deconstructs the distinction between politics and the law, the alleged independence of the judiciary from political control. I have tried in this paper to show how the late-Modern transformation of our understanding of language and knowledge, and theory and praxis, have contributed to the production of an historic settlement in which there is available no course of legitimate cognitive and moral authority other than the competing and rival claims of constituencies whose interests, values, and senses of selfhood are finally incommensurable because they represent, in Kuhn’s words, commitments to “incompatible modes of community life.” “Choice” of a form of community life can of course only be social choice. Its outcome will not be determined by “the facts” or logic, but it need not on that account be arbitrary. In this respect it may resemble the “choice” of a spouse. It is a species of commitment, but in this case, collective commitment. Is the kind of solidarity this requires possible in an individ-

141. 410 U.S. 113 (1973).
ualistic, competitive, and pluralist culture? If not, Thomas Hobbes may have the last laugh.