The publication of *Autopoietic Law: A New Approach to Law and Society*, edited by Günther Teubner, is an event of real intellectual importance. The fifteen essays by legal theorists from throughout the world mark the appearance of a novel paradigm in legal theory — the biological model of autopoiesis. They also make a *Festschrift* of sorts for Niklas Luhmann, a brilliant expositor of the paradigm. Though the name — and some of the prose — is quite forbidding, common lawyers should be keenly interested in this collection. Autopoiesis, after all, is the first image of law drawn from science that comes even close to revealing the secrets of common law’s own harsh discipline.

“Autopoiesis” means “self-production.” Biologists and systems theorists use the term to describe a self-referential system — one that “constitutes the elements of which it consists through the elements of which it consists” (p. 14). The core image of autopoiesis is the individual organism, ceaselessly generating elements out of elements, forming each element into an indissoluble unity from a more complex base of energy and matter (p. 14). Every element of an autopoietic system is produced by and produces the operations of the system. All elements are produced means of reproducing the system. Elements that do not join the circular dance of autopoiesis are outside the system, part of its environment. They may affect elements in the system or be affected by them, but play no role in the operations reproducing the system. Autopoiesis is a new way of understanding the independence and autonomy — the operative “closure” — of systems. ²

Autopoietic law models the legal systems of advanced industrial
democracies as if they were self-reproducing organisms. The core image of autopoietic law is: (1) a legal system ceaselessly generating (and transforming) legal materials entirely out of legal materials; hence, (2) a legal system continuously setting (and altering) the conditions of its own validity (pp. 17-18). Politics, morality, and many other nonlegal forces certainly affect law in autopoietic legal systems — how could they not? — but they do not determine the validity of legal acts and communications.

Legal theorists have two distinct interests in autopoietic law. The first is the dynamism of autopoietic law, stemming from the first part of the core image. The legal systems of advanced industrial democracies constantly generate and transform law in every legal act and communication. A perpetual motion of norms sharply distinguishes certain legal systems. Autopoiesis is a wonderful image for a system dynamically generating and transforming its own elements. Autopoietic law expresses the essential dynamism of certain modern legal systems more effectively than any prior theory.

The second interest is the unity of autopoietic law, stemming from the second part of the core image. Despite the extraordinary conceptual and practical demands the administrative state has made on them, modern legal systems still claim that legality confers a special brand of validity. Though deeply affected by the political and moral exigencies of administration, modern legal systems claim that they do not “decompose” to the forces that affect them (pp. 14-15). Though dynamic, modern legal systems still claim to be coherent in the sense that a denizen of the system can at any moment determine the validity of a legal act or statement according to whether it has been produced by operations of the system. The denizen at all times knows the system’s operations and the possible results of those operations. Modern legal systems thus do not abandon the claim to substantive coherence, as

3. Autopoietic law is not meant to be a description of all legal systems. The empirical claim is that autopoietic law serves as an appropriate model for the legal systems of advanced industrial democracies.

4. One of Kelsen’s greatest achievements was to be the first legal positivist to model the dynamic character of modern legal systems. See H. Kelsen, The Dynamic Aspect of Law, in Pure Theory of Law 193-278 (1970) (published as the Reine Rechtslehre in 1934).

5. Legal theorists differ sharply on the meaning of “validity.” Legal sociologists, such as Luhmann, attempt to clarify the terms of the debate by correlating criteria of validity with specific types of legal systems. That a legal system must use some criterion of validity is probable. Though I shall not explore the subject in depth here, autopoietic law does claim a criterion of validity for autopoietic legal systems — a binary code by which denizens of the system can say whether an act or communication is “legal” or “illegal.” See pp. 16, 23-26.

6. Autopoietic law asserts that the criterion of validity need not be stable, or even expressible in rules or maxims available for ready restatement. Nor does autopoietic law require that only one legal act or statement be valid at any single moment. Nonetheless, denizens can at any moment recognize the validity of legal acts and statements, which is all autopoiesis requires. For a compelling criticism of the doctrine of time embedded in this notion of validity, see Cornell, Time, Deconstruction, and the Challenge to Legal Positivism, 1 Yale J.L. & Humanities (1989) (forthcoming) [hereinafter Cornell, Legal Positivism].

1648
Michigan Law Review
[Vol. 87:1647]
legal positivism suggests they must. Yet because modern legal systems are dynamic, no one can point to a single, rationally expressible essence capturing the substantive coherence. Autopoietic law asserts that legal systems can be substantively coherent, despite the lack of a single, rationally expressible essence (p. 21). Autopoiesis proclaims the dynamic substantive coherence — the “unity” — of the legal system in its sustaining control over its own operations (pp. 13-14, 18, 23-26). The system is autonomous, because it “can neither derive its operations from its environment nor pass them on to that environment” (p. 18).

My criticism of Niklas Luhmann’s construction of autopoietic law is that he favors the second interest, the operative unity of modern legal systems and their autonomy from the environment, at the expense of the first, the dynamism of these systems. Luhmann preserves the autonomy of autopoietic legal systems by insisting that they are closed only to legal norms, but open to information from the system’s social environment. This formula, normatively closed and cognitively open, draws the teeth of autopoietic law. It makes autopoietic law into fancy positivism coupled with covert naturalism — the static theories of law — rather than an account of law and society that is sensitive to traces of dynamism. While various mixtures of fancy positivism with covert naturalism are endemic in modern legal theory, they are by no means analytically inevitable or politically desirable.

Two difficulties with Luhmann’s formulation drive him to positivism and naturalism. First, autopoiesis itself, as Luhmann is aware, may not be transferable from individual organisms to social systems (p. 14). So long as Luhmann treats the social system as a super-individual, for which autopoiesis is more than an attractive metaphor in the manner of Hobbes’ *Leviathan*, then the key to autopoiesis, the real individual, will be missing. The absence of real individuals leads Luhmann to legal theories that likewise marginalize the individual, namely positivism and naturalism.

Second, assuming it is possible to use autopoiesis to describe the

---

7. I am deeply aware that autopoietic law, as all real intellectual undertakings, has been an intensely social project. I find it an unfortunate consequence of the limits of energy (and, undoubtedly, the patience of the editors of the *Michigan Law Review*) that I focus on Luhmann to the virtual exclusion of the other extraordinary contributors to *Autopoietic Law*. I owe a special apology to Günther Teubner, who has been developing his own brand of autopoietic law, fully as rich and instructive as Luhmann’s. See, e.g., Teubner, *Substantive and Reflexive Elements in Modern Law*, 17 LAW & Soc’y Rev. 239 (1983); Teubner, *Autopoiesis in Law and Society: A Rejoinder to Blankenburg*, 18 LAW & Soc’y Rev. 291 (1984).


9. This is especially true for common law theorists, who cannot compress their tradition within plain positivism or plain naturalism.
social system as if it were an individual organism, it is difficult to imagine how a subsystem of the social system can itself be autopoietic within the autopoiesis of the entire social system. The legal system can be autopoietic in its own right only if a subsystem—a discrete social system serving a function within another social system—can be autopoietic. If a subsystem cannot be autopoietic, then the legal system can be autopoietic only as part and parcel of the autopoiesis of the rest of society. The legal system would then be dynamic, but not autonomous. The formula, normatively closed and cognitively open, reflects Luhmann’s functional confinement of the legal system within an autopoietic subsystem. The claim that a legal system is an autopoietic subsystem thus stands or falls on Luhmann’s ability to distinguish between “normative” and “cognitive.” This is an empirical distinction Luhmann cannot validate, though he is correct that the autonomy of the legal system depends on it. The common law exemplifies the empirical difficulties besetting the distinction. It also puts in question the claim that other legal systems, such as the Continental systems with which Luhmann is undoubtedly more familiar, successfully distinguish between “normative” and “cognitive,” and hence are autopoietically autonomous. Failing clear empirical validation of the distinction, Luhmann’s formula, and the functional confinement of the legal system it presumes, constitute a normative choice or orientation on Luhmann’s part. The normative choice to distinguish between “normative” and “cognitive” leads Luhmann, once again, into a mixture of positivism and naturalism.

Luhmann is not alone in this choice. Modern legal theorists mix positivism and naturalism whenever they wish to confine legal systems within a functionally defined subsystem of the social system. Luhmann works in a theoretical tradition that regards legal systems that are coordinate with the entire social system as “fundamentalist” or “primitive.” The common law is coordinate with the entire social system. However, it is neither “fundamentalist” nor “primitive.” It supports an advanced industrial democracy.

My criticism thus takes the perspective of a denizen of common law—the legal system of an advanced industrial democracy. Presumably Luhmann is interested in autonomy because he believes that autonomy of the legal system facilitates the development and functioning of advanced industrial democracies. To sustain his claims about autonomy, Luhmann must be able to show that common law systems satisfy his empirical claims about autopoiesis. In particular, the com-

10. Luhmann is also aware of this problem. See p. 19.
11. Luhmann admits that as an empirical matter every operation in law uses normative and cognitive operations simultaneously. He makes fascinating and important theoretical statements about the simultaneity, but the differentiation of the two, given their inevitable empirical coincidence, is surely not capable of empirical validation. See p. 20.
mon law must vindicate the formula, normatively closed and cognitively open, which expresses Luhmann’s analytic emphasis on unity and autonomy at the expense of dynamism.

As Richard Lempert argues in his contribution to the volume, the common law does not empirically validate Luhmann’s formula (pp. 178-82). Therefore, the interest of common law theorists in autopoietic law must be the reverse of Luhmann’s interest. The common law is vitally concerned with dynamism for its own sake, not as a defensive response to the needs of autonomy and unity. Dynamism, I suggest, is a virtue more hospitable to advanced industrial democracy than are unity and autonomy.

The price of dynamism is undoubtedly a loss of intellectual coherence and perfect autonomy — a rejection of functional confinement. Nevertheless, the key to the common law as a dynamic jurisprudence, which it shares with a whole family of dynamic jurisprudence, is exactly the individualism that autopoiesis attempts to model. The individual living in a dynamic legal system uses it to draw on the resources of society to perfect his or her individuality, not to mediate between a calculating will and the demands of society. Luhmann’s discussion of the motor driving autopoietic law, by contrast, is a story of tautology rescued by utility (pp. 22, 26-28). A common law understanding of autopoietic law — autopoiesis through, rather than over, the heads of real individuals — may ultimately shed light on the general autopoietic account of social systems.

My disagreement with Luhmann centers on the stakes I believe he places on the key theoretical propositions of autopoiesis. For Luhmann, the possibility of an autonomous legal system is at stake, despite the obvious fact that politics and morality infuse legal decision-making in advanced industrial democracies. As Luhmann sees it, if autopoiesis is a correct description of legal systems in advanced industrial democracies, then law can make good the claim to provide a fixed point, a reliable standard for citizens in these democracies to use in daily interactions. From Luhmann’s perspective, if autopoiesis is wrong, then the legal system seemingly must succumb, like the market or even the family, to the perpetual warfare over politics and morality that citizens of democracies at once lament and celebrate.

My perspective is different. Politics and morality do not destroy the legal systems of advanced industrial democracies. It is not a mark of success for these legal systems to be able to claim that they are intellectually coherent, hence autonomous from the “nonlegal” pressures of politics and morality. Law in these systems can be another way of playing politics, another arena in which citizens engage in

moral disputation. The reverse is also true. It is hard to fathom how any politics or moral disputation can function, even in principle, in a universe devoid of legality. The idea is nonsense, inconceivable. Hence, the project of protecting the legal system from a "nonlegal" politics or morality is a false project. Practicing lawyers in common law systems know this truth. Legal scholars, fascinated by the same models of jurisprudence that beset Luhmann, often forget it.

My disagreement with Luhmann also centers on the definition of elements bearing the system's autopoiesis. Luhmann maintains that the autopoietic elements of the legal system are legal norms defined as congruently generalized behavioral expectations (p. 27). Luhmann's definition thus deprives legal norms of any reference to real individuals. Luhmann dumps everything real about individuals into the cognitive part of the legal system, the exact part that is not autopoietically closed according to Luhmann's formula. The common law, by contrast, gives the real individual a role in the content of norms, not just in stating the content. The individual is a necessary normative reference. The legal norm does not stand apart from its maker. To know the norm is to know prior, present, and future applications of the norm by ordinary legal persons. The norm is the application of the norm. It is not prior to application.

Finally, my disagreement with Luhmann may be expressed as an uncertainty, or skepticism, that scientific models such as autopoiesis can fully capture the strong individualism of the common law. Luhmann works in a tradition heavily influenced by positivism and naturalism. These schools of jurisprudence use images of science that have no room for individuality. By looking to autopoiesis, one of the new sciences of the individual, as a model for legal theory, Luhmann tries to ameliorate the lack of dynamism and unity that have traditionally afflicted positivist and naturalist theories. Yet in the end, Luhmann sinks back into the very models autopoiesis was meant to ameliorate. The simultaneous attraction that positivism and naturalism exercise on legal theorists is immensely powerful. Perhaps we do not yet have an adequate scientific model of individuality to ward off that attraction.


14. Drucilla Cornell's attack on Luhmann runs along these lines. See Cornell, Legal Positivism, supra note 6.

15. Positivism and naturalism hold, each in their different yet complementary ways, that the norm is prior to application of the norm. Luhmann claims to agree that lawmaking and law-applying can never, even in principle, be distinguished. P. 345. Nevertheless, the structure of his model, sharply distinguishing normative from cognitive ways of handling disappointed expectations, may lead him into the very distinction he denies.
Nonetheless, legal theory has a powerful account of individuality in a different tradition: law as revelation has strong models of individuals. At the very least, revelatory law is worth exploring as a possible model for dynamic (and often nonsacred) legal systems, in which the individual as such plays a leading role. The common law puts individuals at the center of the legal system, and possesses recognizable revelatory moments. Law as revelation has never used scientific models.

Part I of this Book Review explores some ties between the non-revelatory traditions of Western jurisprudence and the preindividualist models of science available to these traditions up to the end of the nineteenth century. Part II describes the new sciences of the individual, which began to dominate science at the turn of the century. These included, at first, developments in physics and psychology, and Weber's social science. Autopoiesis too is a science of the individual, as Part III shows, with precursors in economics and legal theory. Part IV describes Luhmann's vision of autopoietic law and the model of society as communication anchoring it. Part V argues that Luhmann has retreated from the vision of autopoietic law in order to emphasize the autonomy of legal systems, albeit at the cost of their dynamism. Part VI presents a common law response to the retreat, emphasizing the centrality of dynamism in the legal system of at least one advanced industrial democracy. The discussion of dynamism in the common law turns us to the revelatory tradition.

I. CONTINENTAL JURISPRUDENCE AND PRE-INDIVIDUALIST SCIENCE

Science has always been a source of powerful metaphors for Western jurisprudence. Apart from revelation, the two other main traditions of legal thought, legal positivism and naturalism, stick closely to one of the two scientific traditions that were dominant in the West through the middle of the nineteenth century.

Legal positivism always rests upon the physicists' model of mechanism. Naturalism adopts some version of the biology of species (or essences) that marks pre-modern organic science. Particular theories, such as Hobbes' *Leviathan*, have inevitably joined these models in fabulous and instructive mixtures. Nevertheless, these two models,
mechanism and the biology of species, practically defined the images legal theorists drew upon to describe the ways and means of nonrevelatory law and legal institutions.

A. Legal Positivism and Mechanism

Legal positivism is the doctrine that persons can know law solely by reference to the procedure by which it is marked as law, or promulgated. A key problem in positivist systematics is accounting for the source of the procedure. Some forms of positivism attribute the source to the agreement of persons to be governed by laws promulgated according to the procedure. Others develop a procedural naturalism, whereby a rational observer perceives the procedure. Perceived procedures often accompany a natural morality. At least one branch of positivism, therefore, reduces to a naturalism of procedure. The other also remits to naturalism, however, in the question: How do we know when persons agree? Thus positivism always requires a naturalist practice, at least whenever the procedural mechanism is beset by conflict or disorder.

Positivism draws two simple images from mechanism. The first is the static image of order (inertia). The second is the kinetic image of control (impressed forces). Positive law describes a procedure, a mechanism, whereby an observer is able to understand the order established by “orders” emanating from the procedure, and to control legal subjects (the masses) by enforcement of the orders (the forces).

Legal positivism also shares a deep methodological kinship with the methods of experimental science, of which mechanism is a supreme example. (The method of the pre-modern biology of species and naturalism is observation, not experiment.) The way of knowing through experiment resembles the positivist account of legislation. Laws are the subject of knowledge in both experimental science and positivist jurisprudence. The experimenter and the jurisprude come to know laws in a similar manner. Laws are not “found” (as observations are found in the pre-modern biology of species or in naturalism), but are “put there” by acts of will.

Experiment requires two acts of will. The first is the exercise of will in making a theory. The theory contains a description of an initial state in terms of categories, together with a description of laws of motion amongst the categories. These descriptions are an act of will on the part of the experimenter, since the categories and the law of motion amongst them have heuristic value only. (The experimenter does

18. See, e.g., id.
not claim to know the essence or real being of nature through the
categories and laws of motion.) The second act of will is empirical.
The empirical act of will is to intervene in the initial state, checking
that the actual categorical changes in the state match the changes pre­
dicted by the laws of motion. The validity of the theory depends upon
the coincidence of the first act of will with the second: the laws of
motion described in the theory with the actual state produced by the
intervention.

Similarly, legal validity in positivism flows from the coincidence of
two acts of will. The first act of will in positivism is the promulgation
of laws by the legislator. Promulgation of laws closely resembles the
theory-making act of will in experimental science. Positivist legisla­
tion at once describes behavior in terms of legal categories, and sets
the legal laws of motion — the orders backed by sanctions — amongst
the categories. The second act of will is the decision of subjects of law
to follow or not to follow the orders, the legal laws of motion. Legal
validity flows from a coincidence of the subjects’ decisions (whether
following orders or triggering sanctions) with legislation.

Finally, both legislator and experimenter-as-theorist in the first
acts of will are apart from or “outside” the material they wish to con­
trol. Both legal subject and experimenter-as-intervenor in the second
acts of will are “connected to” the controlled materials, but are still
only tentatively or hypothetically “inside” them. Both legislator and
legal subject, therefore, have external orientations toward legal norms.
There is never a coincidence of maker of norms and subject of norms.
Norms are just “there,” instruments of control or subjection, entirely
external to all persons in the positivist legal universe.

B. Naturalism and the Biology of Species

Naturalism is the doctrine that the source of law is the perceptions
of a rational observer. The key problem in naturalism is the qualiﬁca­
tion of the observer as “rational.” When conflict inevitably arises over
the qualifications of competing observers, naturalism remits to proce­
dural marks of rationality. Thus naturalism requires a positivist prac­tice when the project of locating a natural essence is beset by conflict
or disorder.

Naturalism draws the image of a rationally perceivable essence —
law as substance — from the biology of species, which is wholly open
to the perceptions of a rational observer. “Biology of species” refers
to any biology that uses “species,” however defined, as the building
block of the organic, or even inorganic, world. “Individuals” are

ence between mechanistic and biological explanation, see E. NAGEL, supra note 21, at 398-446
(biological explanation is usually teleological; mechanistic explanation is not).
merely the instruments or bearers of the life of the species. Characteristics borne by individuals may or may not capture the species characteristic in this biology (as, for example, individual bees — workers, drones, queen — do not, taken one by one, capture the species characteristic — the hive life — of bees). The biology of species (possibly always) formulates the scientific “explanation” of a phenomenon as an essence, which can be adequately perceived through correct observation. The technique, and therefore the content, of observation varies, of course, from one version of the biology of species to another. Nonetheless, the assertion in this scientific method is that sheer observation can plumb the depths of reality.

The biology of species, unlike experimental science, has no simple test of validity. Similarly, natural law has no clear test, unlike legal positivism. The tests of validity, such as they are, stem either from esthetic intellectual criteria (fitness, elegance, etc.) or from the degree to which the actual life of the species fulfills a purpose the observer assigns to the species, an esthetic practical criterion flowing from the observer’s teleology. Failure of a species or group to pass either sort of criterion is chalked up to disease or deformity. Hence legal systems premised on naturalism tend to regard sanctions as either the cure of moral disease or, in the most serious cases of deformity, eradication of the diseased creature.

II. THE NEW SCIENCES OF THE INDIVIDUAL

Prior to this century, only philosophers and theologians attempted to discuss the individual as such. Scientists spoke about species or categories, not individuals. The approach to the individual as such, both as observer of events and as event observed, is a hallmark of twentieth-century science. Autopoiesis uses the language of science to talk about individuals as such, not as members of species or instances of categories. It is the most recent addition to the new sciences of the individual, in which truth flows from individuals interacting with individuals, rather than from species and categories in the mind of God.

Autopoiesis thus depends upon shifts in scientific method that began replacing both mechanism and the biology of species as long ago

24. Like most generalizations, this one begs to be challenged. For example, some eighteenth-century biologists spoke of individuals rather than species. See E. Mayr, supra note 23, at 263-65. Nevertheless, only twentieth-century science has made the points of view of the individual thematic in several branches of science.

25. Stephen Hawking’s new book is a model of honest scientific deliberation on the place of God in scientific theories. S. Hawking, A BRIEF HISTORY OF TIME (1988). For example, he describes the relative latitude Laplace, the arch-determinist, gave to God’s operations. Id. at 172. Hawking himself believes that we can come to know the mind of God through understanding the mechanisms of the universe. Id. at 175.
as the middle of the nineteenth century. The new discoveries replaced mechanism first with statistical mechanics, then in turn with the theory of relativity and quantum mechanics. They discarded the method of essences for a biology of individuals, as a consequence primarily of Darwin's theory of evolution.

The "biology of individuals," by contrast to the biology of species, looks to individuals as the building blocks of the organic, or even inorganic, worlds. Darwin's evolutionary biology, which demonstrated above all the temporality of species, rendered the whole project of perceiving essences untenable (essences probably have to be eternal). The focus had to be on characteristics of individuals and interchanges among individuals. The "species," from this perspective, could only be either a summary description of interchanges or the isolation of specific interchange mechanisms, such as language for humans. Only evolution makes the biology of species untenable. Darwin's scientific predecessors, like the medieval Nominalists, could only assert the impossibility of divining essences; they had not scientifically shown it.

The replacements for mechanism, just like the biology of individuals, also forced scientists to consider the role of individuals in forming reality, both as objects of scientific scrutiny and as the scientist-subjects carrying on the scrutiny. Statistical mechanics makes explicit the abstraction of classical mechanics' description of "forces moving masses." Instead of "forces moving masses," statistical mechanics of-

26. It is characteristic of the conservatism of lawyers, even "radical" lawyers, that legal theory had to wait so long for this reflection. Ideas do not exactly travel at the speed of light in legal theory.


28. But not exclusively. The way had been prepared by Hegel. The biology of individuals forms a basic theme of his Phenomenology of Spirit (1807) and Encyclopedia of Philosophy (1817). However, Hegel's scientific method had no effect, so far as I know, on the developments in science or legal theory that I am describing. The intellectual history would be worth exploring.

29. See E. MAYR, supra note 23, at 251-97.

30. Montesquieu — like Luhmann and Weber, a lawyer turned social scientist — prefigured the study of populations in the twenty-third book of his Spirit of the Laws, "Of Laws in the Rapport They Have with the Number of Inhabitants," (published in 1748 as De l'Esprit des Lois). Durkheim's elaboration of Montesquieu's population theory was published in 1893 as the Division du Travail Social. See E. DURKHEIM, THE DIVISION OF LABOR IN SOCIETY [hereinafter E. DURKHEIM, DIVISION OF LABOR] 256-82 (1964). The centrality of populations to biological theory was not at all understood until 1896 at the earliest. See E. MAYR, supra note 23, at 272. We shall see another instance where social science anticipated a development in biological theory, in autopoiesis! See infra note 57.

Hypothetically, one may pinpoint the joiner of Hegel's metaphysical biology of individuals with scientific theorizing in the work of the American pragmatists, particularly C.S. Peirce, in the late nineteenth century. His "science of signs" is an attempt to talk about the specific interchange mechanism of humans. See J. HABERMAS, KNOWLEDGE AND HUMAN INTERESTS 91-112 (1971) (first published as Erkennisse und Interesse in 1968).
fers probabilities that an observer will find components of matter, however defined, at a spectrum of points in space-time.\textsuperscript{31} Relativity and quantum mechanics force inclusion of perspectives or actions of the observer as part and parcel of observation. Quantum mechanics asserts that observation sets or distills the observed phenomenon from a fundamentally “nonobservable” substrate, one that is probabilistic in nature.\textsuperscript{32} Thus a common theme expressed both in the decline of mechanism and in the substitution of the biology of individuals for the biology of species is the role of the \textit{individual}, both as subject and object, in the scientific account of reality.\textsuperscript{33}

Durkheim represents a transitional figure in the application of the methods of individualist science to social life. Durkheim’s method is sheer observation.\textsuperscript{34} Though the method is substantially similar to the methods of pre-modern species science, the \textit{object} of observation includes individuals as well as species.\textsuperscript{35} Even so, Durkheim’s method does not require reference to the observer’s perspective, hence any conversation between observer and object of observation.\textsuperscript{36} Max Weber developed the first fully individualist methodology in social science, shortly after Durkheim’s work, requiring reference to the consciousness of the observer and a conversation between the observer and the observed.\textsuperscript{37}

\begin{itemize}
\item[31.] Statistical mechanics thus joined the evolutionary theory of populations as a latecomer to Montesquieu’s derivation of aggregate characteristics from populations. Ludwig Boltzmann introduced the formative distinction of statistical mechanics between the average in time on a single molecule and an instant average over many molecules (and proved the equality of these distinct concepts) only in 1871. See E. Segre, \textit{Classical Physicists}, supra note 27, at 242.
\item[32.] See generally H. Pagels, \textit{The Cosmic Code} 17-190 (1982).
\item[33.] I have deliberately not discussed the new science of chaos, which incorporates both notions of self-organization and self-similarity through iteration of recursive functions over all elements of a set. Though autopoiesis undoubtedly belongs to the science of chaos, neither the science nor my knowledge of it is sufficiently developed for me to tie the two together. James Gleick reports that some physicists regard chaos theory as the third great revolution of twentieth-century science, after relativity and quantum mechanics. All three chip away at the Newtonian foundation of mechanics: relativity at the absolute Galilean frame of reference, quantum mechanics at absolute measure, and chaos at Laplacean determinism. See J. Gleick, \textit{Chaos: Making a New Science} 5-6 (1987). One branch of chaos theory, Benoit Mandelbrot’s theory of fractional dimensions, emphasizes the relativity of measure with respect to \textit{scale}, as compared with relativity’s \textit{acceleration} and quantum mechanics’ \textit{position}. Mandelbrot has emphasized the kinship of his ideas with the twentieth-century emphasis on the perspective of the observer. See id. at 97.
\item[35.] See id. at 6-13.
\item[36.] Durkheim’s use of the comparative method may be a substitute for Weber’s method of understanding through conversation. See infra text accompanying notes 111-13.
\item[37.] See M. Weber, \textit{The Methodology of the Social Sciences} (1949) (the earliest essay was published in 1904). For a more elaborate discussion of Weber’s method, which is the starting point today for all social inquiry, see infra text accompanying notes 111-13. But see infra note 113. Anthony Kronman has emphasized the will-centered, hence individualistic, element of Weber’s methodology. See A. Kronman, \textit{Max Weber} 6-36 (1983). Kronman ties Weber’s individualism to his positivism. I believe this misconstrues the revolutionary implications em-
The most thoroughgoing science of the individual, Freud's dynamic psychology, uses methods clearly reflecting the milieu in which Weber's social science, modern biology, and the new physics flourished. Only the goal of dynamic psychology differs: the empirical realization of the freedom of the individual, which philosophy, political theory, and law assign to the individual only in principle. The technique of the empirical realization of freedom bears a striking resemblance to the technique of the other sciences of the individual in the empirical realization of truth: a cooperative communicative interaction in the interest of self-knowledge. Only recently has a social theorist, Jürgen Habermas, attempted to follow Freud's program in the three fields against which Freud developed his dynamic psychology. Durkheim and Weber used individualist methods in the interests of knowledge. Habermas uses them, like Freud, in the interests of freedom. Habermas' effort has been critically important in Luhmann's invention of autopoietic law.

The test of validity in the new sciences of the individual is the health of the individual. Health, in turn, is broken down into various notions of functional efficiency. Since the biology of individuals lacks any teleology or canon of intellectual elegance, the degree to which the subject of observation fulfills a moral purpose or satisfies an esthetic vision cannot be defined by these scientists. Nor do they express an interest in control through experiment. Health — the efficient functioning of the organism — uses criteria established by the organism itself. Thus the scientist of individuals necessarily enters into a conversation with the object of observation. The observations of the scientist serve not to control the organism, but to suggest or create conditions in which the organism can maximize functional efficiency as the organism defines it, or to assist the organism in changing its functional criterion, its canon of health. Some scientists of the individual have used a physical or objective version of the test of health that does away with methodological conversation. They observe the "survival" of the organism as if they were mechanists or scientists of species. The objectivity of the test of survival is a "given," rather than a bedded in Weber's methodology, if not the social theory he actually constructed using the methodology.


39. See infra text accompanying notes 57-58.
reward for methodological conversation.  

III. BIOLOGICAL AUTOPOIESIS AND ITS PRECURSORS IN SOCIAL SCIENCE

The new description of law and legal institutions, which has been brewing at least since the era of Kelsen and Hayek, has the rather formidable name, "autopoietic law." Autopoiesis — "self-production" — is a term coined by Maturana, a Chilean biologist, to describe an advance in the application of systems theory to organisms (pp. 71-74). The autopoietic paradigm is an important contribution to the scientific modelling of individuation.

Autopoietic systems are those in which the elements of the system generate the network of operations producing the elements of the system. By contrast, a system whose elements do not generate their network of production in the circular manner of autopoiesis is an allopoietic — "other-produced" — system. The elements of an allopoietic system are either fixed (given and unchangeable) or generated by forces or elements from the system's environment. The system is neither independent nor autonomous, since the elements of an allopoietic system do not produce themselves exclusively out of elements of the system. The core image of an allopoietic system is the machine, as opposed to the autopoietic organism. The machine changes when its elements change. It cannot resist change in its operations by transforming its elements. Though the elements of an autopoietic system almost certainly change as other elements generate them, they change

40. Hobbes uses at least three tests of validity in his Leviathan. See supra note 17. The Leviathan prefigured the test of survival. Nevertheless, Hobbes also retains a teleological test of validity, since the Leviathan uses "convenience" as well as survival. Hobbes thus represents a transitional figure from naturalism and the biology of species to the modern sciences of the individual and a form of autopoietic social theory. Hobbes' positivism, I would argue, is a consequence of his naturalism, where Hobbes attempts to deal with the absence of a criterion for determining the status of the rational observer. His ambivalence is clearest in the claims he makes for the laws of nature. At some points he refers to them as rationally observable and deducible — his Spinozism. Overall, however, he remits the validity of the laws of nature to a third test: self-reflection on the part of the reader. This third test, while not thoroughly worked out, resembles the test of health in the modern sciences of the individual.

Malthus was the first to associate Montesquieu's population science with a test of survival. Durkheim uses both a test of survival — in Suicide — and a test of health — in The Division of Labor in Society. E. Durkheim, Suicide (1897); E. Durkheim, Division of Labor, supra note 30.

Luhmann, correctly I think, distances autopoiesis from the test of survival. P. 14. Nevertheless, his abandonment of the full force of autopoiesis in the positivistic formula, normatively closed and cognitively open, restores survival as a possible criterion.

41. One of the two discoverers of biological autopoiesis, Maturana, defines it as follows: We maintain that there are systems that are defined as unities, as networks of productions of components that (1) recursively, through their interactions, generate and realize the network that produces them; and (2) constitute, in the space in which they exist, the boundaries of this network as components that participate in the realization of the network. Maturana, Autopoiesis, in AUTOPOIESIS, A THEORY OF LIVING ORGANIZATION 21 (M. Zeleny ed. 1981). See supra text accompanying note 2.
according to operations (criteria) of the system, not in direct response to outside pressures (the system is "closed").

The operations of an autopoietic system do not change in response to outside pressures. Change in elements is the cost of maintaining the stability of operations. Hence the autopoietic system maintains its identity as a system through its operations, even though its elements need not be the same in successive transformations. Even as its elements change in response to outside pressures (the system is "open"), the system responds to the pressures on its own terms (according to its own operations), not on terms established by the environment. It resists such pressures as a system by transforming single elements, or by uncoupling an environment — running away from the pressure.

The intent of the autopoietic paradigm is to account for the power of organisms to control or affect the environments in which they collectively evolve, and to maintain their identity in the face of pressures from these environments (or select amongst environments). Ordinarily allopoietic systems can do neither. Autopoiesis thus focuses on attributes of individuation which former scientific methods were hard-pressed to explain: self-motivation, or the power of individuals to be a source of force not motivated externally from the environment, and the self-maintenance of individuals in the face of changes in the environment.

Though Luhmann was the first to use autopoiesis explicitly as a paradigm for social theory, he is by no means the first to use its substance to model social processes. Characteristically, the first grand autopoietic theory arose in economic, not legal theory, the remarkable achievement of Piero Sraffa in his Production of Commodities by Means of Commodities. Sraffa had begun work on his masterwork in

42. Luhmann emphasizes “closure” as the outstanding characteristic of autopoietic systems for legal theory. See p. 15.

43. Cf. N. Luhmann, Differentiation supra note 8, at 36-38.


45. See generally P. Sraffa, Production of Commodities By Means of Commodities (1960). Once again, a model thought to have originated in the hard sciences had its real debut in social theory. The autopoietic lawyers do not seem aware of Sraffa’s achievement, and attribute the discovery of autopoiesis to biologists. Montesquieu (the theory of populations) and Hegel (the biology of individuals) were not to be the last unheralded pathbreakers for the "hard" sciences. Perhaps all hard science models start in cultural orientations, as Thomas Kuhn has suggested. See T. Kuhn, The Structure of Scientific Revolutions 94-95 (2d ed. enlarged 1970). A nice case of direct impact of philosophy on science is Ampère's discovery of the magnetic effects of electric currents as a consequence of his conviction, learned from Kant, that unobservable theoretical entities could be studied through their interactions. See Williams, André-Marie Ampère, Sci. Am., Jan. 1989, at 90. Lewis Carroll Epstein has emphasized the role of good and bad myths in scientific theory. See L. Epstein, Relativity Visualized 76-77 (1981)
the late 1920s, at just about the same time that Kelsen produced his, the Pure Theory of Law (1934).\textsuperscript{46} Kelsen's theory, unlike Sraffa's, is only partly autopoietic. Kelsen, of course, saw every norm as both generated by and generating norms, except the "basic norm" (at the top of his hierarchy of norms) and the "individual norm" (at the bottom). Kelsen's legal theory is thus not fully autopoietic, because norms form a hierarchy, not a circle. His theory doesn't achieve the generative circularity that is characteristic of autopoietic systems, but uses the "basic norm" instead as a generative seed for the dynamic norm-production of the system. Kelsen's theory thus bears a striking resemblance to the economic theory of Ricardo, which uses corn as a "basic commodity" by which all value can be measured in the reproduction of the means of production.\textsuperscript{47} Sraffa trumps Ricardo by using a fully autopoietic measure — a constructed "standard commodity" defining the conditions of reproduction in terms of equations of production rather than in terms of any single basic commodity such as corn, or even Marx's "socially necessary labor time."

Hayek’s work in the mid-1970s probably constitutes the first fully autopoietic legal theory.\textsuperscript{48} Hayek, however, self-consciously eschews any scientific model, except perhaps the economic methodology of Mises.\textsuperscript{49} Hayek’s is also not a theory of sheer observation, as Luhmann’s confinement of autopoietic law within a social subsystem may be,\textsuperscript{50} but rather serves to ground a normative jurisprudence. In this sense, Hayek has already outstripped the autopoeticists in reconciling the conflict between normative work and social science that afflicts all forms of positivism, legal and scientific.

IV. AUTOPOIETIC LAW AND SOCIETY

Though Luhmann is primarily interested in sociological theories of law, he applies the autopoietic paradigm most convincingly not to law but to the social system. Luhmann’s first (and most clearly defensible) assertion is that social systems are autopoietic. His second assertion, which he correctly believes to be more problematic, is that under certain conditions the legal system, as a subsystem of the social system,
can be at least partly autopoietic in the manner of the general social system. Hence autopoietic law involves a claim about law and a claim about society.

A. Law and Society

Almost every statement about autopoietic law can be and is contested in the marvelous essays of Teubner's collection. Autopoiesis is, after all, a young science, and even its most enthusiastic proponents, such as Luhmann and Teubner, concede that the utility of autopoiesis for legal theory is uncertain (pp. 23, 221-24). Nevertheless, autopoietic law lays down some broad vistas. Viewing them refreshes the soul of even the most theory-weary reader.

The basic idea of autopoetic law is that in certain circumstances, which Luhmann and his co-workers have begun to elaborate, law (and only law) defines what is and what is not law, and every law must participate in defining what is and is not law. By itself, the idea that law defines law and that every law must take part in the defining (a mathematician would say that law is a recursive function) is not a novel theoretical proposition. François Ewald traces the roots of the idea to Kelsen's "law of law" (pp. 36-50). Teubner (p. 224) and Luhmann (p. 22) recall H.L.A. Hart's formulation of the proposition that in complex societies law serves the secondary function of recognizing norms that serve the primary function of directing or facilitating behavior. The real novelty of autopoietic law is that it tracks down exactly what it means for law to define law, and promises to show the exact social, legal, and cultural (but not political!) conditions in which law defining law is possible. In other words, autopoietic law embeds H.L.A. Hart's "rule of recognition" or Kelsen's "basic norm," which like all positivist proceduralisms fall from the heavens, in a social practice.

The social practice in which Luhmann embeds the legal recursiveness of complex societies is a vision of society as communication.

51. Especially in the essays of proponents. Compare Luhmann's contributions (pp. 14-33, 345-48) with Teubner's (pp. 217-37), and Deggau's contribution (pp. 128-51) with Nelken's (pp. 191-215).

52. See supra note 33.

53. H.L.A. HART, THE CONCEPT OF LAW (1961) ("rules of recognition"). Hart's theory is even less autopoietic than Kelsen's, since he divides all norms into two great categories, those that generate other norms and those that are generated by other norms.

54. Thomas Heller's piece, Accounting for Law, is the only one in the volume to discuss the politics of autopoiesis directly. Pp. 283-311. I guess the others really believe that the legal system is autonomous, or that God does not play politics in evolution.

55. Luhmann models the legal system as a subsystem of society, where society is itself an autopoietic system whose elements are communications: The social system consists of meaningful communications — only of communications, and of all communications. It forms its elementary units from the synthesis of information, communication, comprehension, i.e., from the synthesis of three selections, which can be partially (but only partially) controlled by the system. As such element formation always
Luhmann's account of society as communication is quite striking, and is, by itself, worth the price of admission to Autopoietic Law. 56

His notion has its roots in Habermas' paradigm of communicative action. 57 Habermas uses "communicative action" to criticize what he considers to be Talcott Parsons' exclusive focus on social relations as functionally coordinated "systems." 58 Communicative action is a regulative ideal immanent within empirical social interaction. It is the setting in which members of a community coordinate action to pursue common conceptions of meaning. As such, Habermas prefers communicative action to system, though system is necessary to "pay the rent" and must be modelled by the social scientist.

Luhmann's notion of communication lacks the critical bite of Habermas' conception. Society, for Luhmann, is communication — a ceaseless expression of information by one and comprehension by another. Luhmann does not oppose communication to system — Habermas' anti-utopia. Rather Luhmann opposes communication to action itself, which Luhmann regards as the choice of addressees for communication (action means not communicating to those who are not chosen). Action is thus a "powerfully simplifying self-observation or self-description of the system by itself," 59 which keeps communication, hence society, going. Consequently, no one ideal model of communicative action, such as Habermas' ideal speech situation, deserves pride of place in the signalling interchanges that both motivate functional systems and are facilitated by them. Communication is textured

presupposes society and always continues society, there is no communication outside society and therefore no communication of society with its environment. No man can communicate (in the sense of achieving communication) without thereby constituting society, but the social system itself (precisely for this reason!) is not capable of communication: it can find no addressees outside itself to which it could communicate anything.

P. 18. See also N. LUHMANN, DIFFERENTIATION, supra note 8, at 73.

56. Pp. 16-23. Luhmann writes very fast. He also presents a moving target. His writing is a way of thinking, a real dialogue with the republic of letters. One might almost say that Luhmann's oeuvre itself is autopoietic: it unceasingly regenerates itself, maintaining its identity by changing its elements. Thus almost anything one says about Luhmann's thought is bound to be wrong, since he, like quantum reality, leaves a position as soon as one observes him taking it. In other words, he is a great theorist.


59. P. 16. As an American, I hate the idea of a system "observing itself." I have the bias of the common lawyer, that people do things, not systems. Nevertheless, Luhmann's sentence makes sense. A system "describes itself" by specifying the exact "routes of communication" describing the system. The system does not describe itself in a blueprint of routes, but through actions that make and remake the routes during the life of the system. Hence, the system describes itself through actions. It is also possible to understand the idea that systems, as opposed to individuals, have actions. The bank teller is everyone's favorite example: customer and teller interact according to patterns dictated by a system. One can't even say that the "creator" of the system dictated the patterns, since she too is fulfilling the prerequisites of a system, and so forth. From the point of view of individuals, system actions are "roles."
and various. It need not even include speech, certainly not rational discourse, so long as it expresses information calculated to change the understanding (in some way) of an addressee of the communication.

The exact meaning of "law defines law" becomes crystal clear as soon as one formulates the proposition in terms of communication. One cannot make "political" or "moral" statements to a person who expects "legal" ones. A "political" or "moral" statement simply will not register. The statement can certainly have moral or political content — no autopoieticist would deny that most or all legal statements do — but it must be in "legal form" in order for the addressee of the statement, behaving as if she is in a legal setting, to receive it and do something about it. After all, the addressee is on the hook. She requires a legal statement, because she must in turn make a responsive legal statement either back to the maker of the original statement or to a third party. (Think of a purchaser of real property, who needs a deed in order to give a deed to some future purchaser.) When asked for "reasons," she must be able to refer back to an original statement, lest her subsequent statement be rejected by the third party, and so forth.

Autopoietic law is thus more radical than the formulation of either Kelsen or Hart because it insists that every "legal communication" must respond to a prior legal communication, and every legal communication must command a subsequent legal communication. It is also more radical, because it eliminates two very compelling and destructive notions that plague the dominant legal theories. These are the notions of "center" (which we traditionally associate with positivism), and "hierarchy" (which we associate with naturalism).

Luhmann's vision of society lacks the usual topology of social, political, and legal thinking. Hobbes, for example, starts with the image of a level social universe, the state of nature, only to show how it is possible to construct a sovereign out of it. The sovereign is a center, around which the whole of society revolves. Kelsen (less so Hart) imagines a "hierarchy" of norms (their naturalist softening of positivism). Our image of order is indelibly impressed with images of hierarchy and center. We find it difficult to imagine society without them. Yet doing without these images is exactly what Luhmann strives to accomplish. His social science takes no position on center or hierarchy (see, e.g., pp. 21-22). "Center" is an image, a way we have of talking with each other. "Hierarchy" is another way of talking. We may, of course, behave in accordance with the way of talking, but not because "center" or "hierarchy" are givens. It is even possible that we talk "center" or "hierarchy," while behaving in quite another

60. See N. LUHMANN, DIFFERENTIATION, supra note 8, at 287, 353-55 (center), 359 (hierarchy).
manner.61

Law in Luhmann’s vision is just “law talk,” legal communication. We do not make legal statements to one another because we are obeying the orders of a central sovereign or are reflecting a natural or constructed legal hierarchy. We make legal statements because we wish to have an impact on the understanding of persons who expect us to be making legal statements. Our legal statements form an autopoietic system, in that every legal statement serves to generate the network of operations constituting further legal statements.

B. Legal Theory

The attraction of autopoiesis for legal theorists flows exactly from its ability to account for two characteristics of individuality: self-motivation (the dynamism of legal systems) and self-maintenance (the resistance of legal systems to outside forces). Legal systems give rise to legal norms in ways that cannot be mechanically traced to forces from the environment, such as politics or religion. Even if a society is utterly stable (even if its legal system fully reflects all possible social forces), certain legal systems still appear to have the dynamic capacity to transform society, or to resist transformation. Social science must be able to describe these systems, and the autopoietic lawyers claim to have discovered a means to do so. Under certain conditions, which the autopoietic lawyers could in principle describe, a legal system can be a source of force in the society. It need not be only the passive instrument of outside powers.

Positivism and naturalism, premised as they are on scientific models giving no active role to individuals either as observers or as subjects of observation, cannot successfully model either component of individuality. With regard to self-motivation, positivism at most promises the independence of the legal system from outside forces, once the power controlling the legal system has used the procedure it offers to set the mark of legality on certain compelling orders. Positivism reduces self-motivation to autonomy. Yet the autonomy of the positivist system is passive, a freedom from outside forces. Positivist autonomy is not active autonomy, not a freedom to be a source of force independently contributing to the array of forces in society. Positive legal systems cannot generate law out of law, from within the system, as an autopoietic system generates elements from elements within the system (pp. 36-50). Positive law is always the result, the instrument, of outside powers — religion or politics or custom.62 The legal system

61. I am reminded of the famous response of the governors of the Spanish colonial empire to orders from the king: “I obey, but I do not comply.”

62. And, of course, the outside powers have nothing in them of law. Thus politics does not have its laws. It is naked force flowing from unabashedly interested agreements (as if agreement did not require law). Nor does religion have laws. Religion is the fantasy life, the Sunday hobby, of otherwise law-abiding citizens.
is open to and at the mercy of its environments. Positivism (at least positivism before Kelsen) always supposes that legal systems make law as mechanisms make things: only in response to inputs from outside the system. Like any mechanism, the legal system is a dead instrument, ready to be wielded by whatever power in society gains control over it.

The only validity the positivists can claim for law is that it does not betray or corrupt the wishes of the wielder of the instrument. But a positive system cannot even achieve this limited autonomy, since the wielder of the instrument can always corrupt it to suit detailed expressions of power in individual cases. Even minor powers, not "wielders of the instrument," can capture it quietly in single cases, unbeknownst to the wielding power. Law as "orders" cannot even achieve order, unless a nonlegal force, such as "habit" in Austin, has already produced it.

The problem in naturalism is the excessive, counter-factual affinity of natural systems for stasis. Natural law is the perception of an essence. By contrast to positivism, the world of naturalism is legal stuff — whether divine laws, human laws, or laws of nature. But laws only express the stuff; they cannot change it. Nor would the natural lawyer want to try. The naturalist judge is always stamping out departures from the expressed essence. The legal system serves to facilitate the impression of the essence on a world always threatening to dissolve into chaos.

Autopoiesis, by contrast, defines a system that generates itself independently from its environment. Autoepiotic systems can, in principle, be autonomous, or resistant to outside powers. Applied to law, autopoiesis asserts that under certain conditions laws do indeed generate themselves from laws, not from religion or politics or custom.63

We must, of course, inquire — and will inquire — from what point of view the autonomy of the legal system may be a value. The autopoieticists claim that they do not maintain autonomy as a value, and they are correct that the autonomy of legal systems under certain conditions is an empirical fact, which autopoiesis successfully models.64

Where positivism suggests a legal system insufficiently protected from outside pressure — too frangible, too porous — naturalism requires the legal system to remain true to an essence refined and ex-

63. Exactly which laws generate themselves in this manner, whether general legal norms or specific applications of norms to single cases, is a critical problem for autopoietic law, especially as an account of the common law. See infra text accompanying notes 114-18; cf. pp. 180-81 (norms can withstand individual, but not aggregate, deviation).

64. Lempert's detailed and illuminating comparison of the absolute autonomy sought by Continental theorists with the relative autonomy sought by empiricist common law scholars is important, and will support a central theme of this Book Review concerning the inapplicability of autopoiesis as it presently stands to common law systems. See pp. 152-90 (especially 178-82). Nevertheless, Lempert agrees that autopoietic law puts its finger on something. See pp. 172-73.
pressed in a single, unchanging set of norms. The only change naturalism recognizes is corruption of or progress toward the essence — either chaos or reconstruction. Whereas positive systems have no internal life (they lie there like clubs to be wielded by anyone powerful or clever enough to capture or use them), natural systems recognize no life outside themselves. Everything different is diseased, not alive in another way. The essence that laws reflect is an essence precisely because it is eternal (and unchanging, though some naturalists play with the difference). Positivism treats legal change as legitimate — a fresh irruption of power. Naturalism cannot treat change as legitimate, for change always spells the death of the legal system. Autopoietic systems, by contrast, require change. They do not just tolerate it as do positive systems.

V. LUHMANN’S RETREAT FROM AUTOPOIESIS

Luhmann’s vision of law as a special sort of communication ultimately depends on defining the circumstances in which law talk, as opposed to other ways of talking, is the expected communication. So far in his work on autopoietic law Luhmann has used the model of law he developed in his pre-autopoietic work, A Sociological Theory of Law (1972). Though Luhmann believes that the two can be made consistent, I fear that the old work, which is at once positivist and naturalist in its orientation, detracts from the nonpositivist and non-naturalist potential of the autopoietic model. Luhmann’s old work de-centers the individual in the legal system by functionally confining the legal system within a subsystem of the social system. Luhmann finds functional confinement of the legal system useful for elucidating the empirical conditions under which the unity and autonomy of legal systems are possible. But his emphasis on unity and autonomy may represent a retreat from autopoiesis.

A. Luhmann’s Pre-Autopoietic Legal Theory

Luhmann’s old work takes the Hobbesian perspective that law is an instrument for the production of order. Like Hobbes, Luhmann attempts a project that is at once positivist and naturalist. Hence, Luhmann does not begin his work with the (now) usual positivist assumption that a procedure has fallen from the heavens. Like Hobbes, Luhmann attempts to account for the natural growth of the procedure from a legal state of nature.

Although Luhmann’s account has a more modern style than Hobbes’, it has the same basic structure. Hobbes starts from a legal state

65. N. LUHMANN, SOCIOLOGICAL THEORY, supra note 44.

66. See Preface to N. LUHMANN, SOCIOLOGICAL THEORY, supra note 44, at xii.

67. One little-known fact about Hobbes’ legal state of nature is that it is thoroughly legal. It is not a condition of no-law, as many suppose, but a condition thoroughly imbued with legal
of nature without either a social system or a civilized individual. He then deduces the social structure and the civilized individual from his laws of nature (Hobbes' naturalism). The positivist proceduralism and the civilized subject of the proceduralism are the deductive and empirical result of the laws of nature (Hobbes' Spinozism). Luhmann eschews laws of nature, of course. Instead, he begins with the civilized individual.

The civilized individual at the beginning of A Sociological Theory of Law seeks, as Hobbes' creature, to maximize its convenience by reducing the complexity of and contingency in its environment. The most powerful engine for accomplishing these reductions, as in Hobbes, is the cooperation of other individuals. These others also wish to maximize their convenience by reducing complexity and contingency, hence there is a "double contingency" in every effort at cooperation. Individuals have "expectations" as a result of reducing complexity and contingency. Because they do so by cooperating with other individuals, they have expectations of the others' expectations.

These "expectations of expectations," which are fundamental to Luhmann's legal theory, pose special problems of coordination. The key problem is whether individuals are prepared to revise their expectations when another individual disappoints them — a cognitive response — or whether they are not prepared to revise their expectations — a normative response. The choice between cognitive and

premises. Hobbes is very clear that the state of nature is characterized by the legal condition in which every man has a right to everything. Most latter-day Hobbesians suppose that the state of nature is one in which no man has a right to anything. This is not Hobbes. But it is Hegel, for example, and it is Luhmann. The project in the Leviathan is to show how a restriction of the natural condition of plenitude of right is possible. The instrument of the restriction is contract. Hence Hobbes' legal theory is a theory of contract. The project for those, such as Luhmann, who see the state of nature as being devoid of legal matter — as a condition of no-right, to use Hohfeld's terminology — is to show how rights may evolve from nothing, typically through the property idea of building up expectations. Hence Luhmann's legal theory, like Hegel's, depends on property rather than contract.

This is not the place to explore the consequences of these positions, but they are obviously quite rich and interesting. See, e.g., Kennedy & Michelman, Are Property and Contract Efficient?, 8 Hofstra L. Rev. 711 (1980). Even though Luhmann differs from Hobbes in this respect, the structure of his enterprise, like Hegel's, is virtually identical. The only real difference is that neither Hegel nor Luhmann, unlike Hobbes, believes in the notion of the legal state of nature. They envision a state of nature devoid of justification, not rich with it as Hobbes envisioned. The development of law is then a progressive enchantment of nature through justification.

68. See N. LUHMANN, SOCIOLOGICAL THEORY, supra note 44, at 10.
69. See id. at 23-24.
70. See id. at 24-26.
71. See id. at 26-27.
72. See id. at 26.
73. See id.
74. See id. at 31-34. So, for example, if I lose a bet on a boxer whom I expect to win, I will revise my expectations of his skill if he loses fair-and-square. My reaction is "cognitive." If,
normative is not graven in stone. It is selectively influenced by the development of ever more successful methods of coordination driven by the persistent desire of individuals to reduce complexity and contingency. A crucial step along the path of realizing this desire is the institutionalization of expectations, in which "expectations are based on the presupposed expectations of expectation on the part of a third party." Institutionalization allows the formation of generalized expectations over an entire social system, thus stabilizing the expectations of expectations over many parties. Law is the institution of one method of generalization.

Social systems evolve more effective ways of handling the coordination problem, the natural history of which Luhmann explores in considerable depth. The mechanisms of natural selection of methods of coordination are the familiar ones that social theory borrowed from Darwin through Durkheim. The basic technique of selection is the differentiation of functionally specific subsystems of coordination. The function of law, according to Luhmann, is to offer individuals a method of coordination that coordinates all other methods of coordination. Laws are thus "congruently generalized normative behavioural expectations."

At the heart of Luhmann's legal theory, therefore, is the notion however, he threw the fight, I will not revise my expectations of his skill, but will be "normatively" outraged at losing my bet.

75. See id. at 36-40.
76. See id. at 49.

Once again, a social theorist has tied the hard scientists, if not beaten them to the punch! 78. See N. LUHMANN, SOCIOLOGICAL THEORY, supra note 44, at 103-226.
79. See id. at 103-14; cf. E. DURKHEIM, DIVISION OF LABOR, supra note 30.
80. See N. LUHMANN, SOCIOLOGICAL THEORY, supra note 44, at 167-74.
81. See id. at 73-83.
82. See id. at 77.
that the legal system is a functionally defined subsystem of the social system: the subsystem specializing in coordinating all other methods of coordination. Luhmann's functional definition is characteristically positivist and naturalist for at least three reasons.\textsuperscript{83}

First, Luhmann's law is a selection-device for generalizing normative expectations. It takes no position on the substance of norms. All that matters is that law can serve the overriding function of stabilizing expectations through generality. The mark of law is a procedure, whereby methods of generalizing norms are coordinated. But this is the method of positivism — marking law without attention to content. The naturalist point of Luhmann's functionalism is that law does not by itself determine the materials for generalization. These are provided to law by the evolution and play of societal processes. Law cannot teach; it can only express what is already given.\textsuperscript{84}

Second, Luhmann defines "norm," the material law seeks to generalize, as a reaction to disappointment: refusal to adjust one's expectations as a consequence of disappointment. The hinge of the definition is reaction to disappointment. Luhmann excludes aspiration from the definition. The norm states a reaction to disappointment of expectations one has about the behavior of another. It does not express expectations one has about one's own behavior. The norm is other-regarding, even if it is reciprocal. The occupant of Luhmann's legal system, like the occupant of any positivist system, always regards norms as an outsider regards norms — describing the behavior of others. The norm is an instrument of stabilizing expectations about others. It is never the occupant's instrument for relating herself to others. The individual as such is absent from the legal system. Others appear in the degraded condition of satisfying or disappointing expectations. They can never be individuals as such, collaborators in aspiration. "Cross at the green, not in between" is the same to Luhmann as "Be a faithful trustee." We may have different reactions to dishonest trustees than to jaywalkers. Yet both commands are norms, because both take a stance toward disappointment of the expectations set up in them.

Third, Luhmann distinguishes cognitive (prepared to learn) from normative (not prepared to learn) reactions to disappointment. The distinction between cognitive and normative — the "is" and the

\textsuperscript{83} At the time he published \textit{A Sociological Theory of Law} in 1972, Luhmann was not at all shy about his positivist orientation. See, e.g., id. at 159-66. He would have been far less comfortable with the thought that his positivism, like all positivism, has a necessary naturalist component. Luhmann's positivism bears careful review, however, since autopoietic law is frankly nonpositivist, and the difficulty for Luhmann is in reconciling his old positivist results with his new nonpositivist inclinations.

\textsuperscript{84} For example, Luhmann comments on the validity of legislation: "Such passing of law can only occur to the extent that the selectivity itself is used for the stabilisation of law. Positive law is not valid because higher norms permit it, but because its selectivity fulfills the function of congruency." Id. at 156 (emphasis in the original).
“ought” — is the fundamental distinction of positivism. The proceduralism of legal positivism is a way of fixing a boundary between the two. We choose what we choose to disregard. The distinction favors cognition over normation: one can disregard only what one has already regarded.85 Hence positivism, both legal and scientific, always asserts the primacy of cognition. Luhmann’s legal theory, like all forms of positivism, favors cognition over normation.86 The utility minded creatures of Luhmann’s theory are prepared not to learn in order to stabilize expectations, to increase the possibility and efficacy of cognition. As in positivist science, the role of law in positivist legal theory and in Luhmann’s is to enlarge the realm of effective cognition for utilitarian ends.

B. Luhmann’s Use of the Pre-Autopoietic Theory for Autopoiesis

Luhmann’s vision of the legal system in his old work hinges on the distinction between normative and cognitive reactions to disappointment of expectations. Law serves as a master device for congruently generalizing normative expectations. Luhmann preserves this distinction in autopoietic law, because he wishes to assign a functionally defined role to the legal system as a subsystem of the social system. As Luhmann noticed, his old legal theory works well for the program of functionally confining the legal system, hence preserving its autonomy from the rest of society (pp. 18-19, 26-28).

The formula Luhmann develops is that the legal system is autopoietic for norms, defined in opposition to cognition. The legal system is normatively closed and cognitively open (pp. 19-23). Only norms recursively reproduce themselves in the manner of autopoiesis. Cognition — the application of norms to real disputes and the formation of norms in response to real political, moral, and economic issues — is not legally recursive (pp. 26-31) (though every communication must, of course, play a role in the autopoiesis of the entire social system (pp. 339-40)). The legal system maintains its normative integrity from Luhmann’s perspective. When individuals use the legal system to resolve disputes, or legal functionaries give content to norms either by “finding” congruently generalized normative expectations or by hypothesizing them in legislation, then nonlegal forces affect the legal system. It is cognitively open (p. 31).

The role of cognition in Luhmann’s pre-autopoietic legal theory is to serve the ends of civilized, utility-minded creatures who wish to maximize their convenience by cooperatively stabilizing expectations. Luhmann’s autopoietic legal theory preserves the functional role of

85. The naturalist point here is that what we regard, unlike what we choose not to regard, is not open to choice.
86. And, like all forms of positivism, has a naturalist account of cognition.
cognition, but adds a new role for the legal system that is special to autopoiesis: its dynamism (albeit debased, from my point of view).

Cognitive openness introduces asymmetries into the legal system. New cases present new problems of norm-application, hence norm-formation. New social conditions require different responses to old cases. Without new cases and new social conditions the autopoietic system would exist "as pure tautology in total indeterminability" (p. 22). A legal system in which every new case is an old case and for which social conditions are absolutely stable would not be autopoietic. An autopoietic system reproduces its operations through its elements, not its elements through its operations. The legal system, like any autopoietic system, cannot be unless it is in motion (pp. 341-42). The cognitive openness of the legal system, according to Luhmann, drives it into the constant adjustments that make it dynamic, hence autopoietic. But the dynamism does not come from within the system. The self-motivation of the system serves the self-maintenance of the system, its autonomy. Internal reflection on norms serves only the purpose of consistency, or unity. Real critique that changes norms for reasons other than internal consistency is external critique which the system internalizes on its own terms.

C. Retreat

The distinction between cognitive and normative and the functional confinement of the legal system within a subsystem of the social system detract from the force of the autopoietic paradigm for law for three reasons.

First, autopoiesis is a strong model of individuality, maybe too strong to be usefully applied to social systems. Before social science began modelling individuality in the era of Freud and Weber, the individual organism was available only as a metaphor for society. Theorists regarded the reality of society, following scientific models then available to them, to be either a mechanical aggregate (the school of political economy) or a species being (Hegel, Marx). The individual organism makes a demanding model. (Durkheim, for example, is least convincing when he describes society as an organism in The Division of Labor in Society.) The model may, for example, require a political program of either corporatism or institutionalism. It certainly suggests some version of the two ways scientists learn about organisms: structure (anatomy) and function (physiology).

The danger of the model is that it may lead theorists to identify structure with institutions (institutionalism) and function with the sur-

87. See p. 346; N. Luhmann, Differentiation, supra note 8, at 238.
88. Hobbes describes the "Leviathan" either as an "artificial creature" (mechanism) or as a metaphor. See T. Hobbes, supra note 17.
89. See E. Durkheim, Division of Labor, supra note 40, at 260.
vival of the institutions (corporatism). Social theorists must always be vigilant to use structure and function (if they use them at all) in a more "value-neutral" sense. Thus Mark Gould has defined "structure" as "patterns of social interaction, where violation of the pattern implies (in the ideal case) a negative sanction," and "function" as "consequences of [units'] actions for the system as a whole." These "value-neutral" definitions of structure and function do not assume that "society" is striving to preserve structures through functional solutions of structural "problems." Luhmann has consistently strived to use definitions of structure and function that avoid the teleology of the classic functionalism of Durkheim. 91

As a most demanding model of the organism, autopoiesis may not be consistent with a nonteleological functionalism. 92 The very point of autopoiesis is to model the self-maintenance and self-motivation of individual organisms. Autopoiesis thus takes a position on the "consequences of [units'] actions for the system as a whole." Autopoietic functions must strive to preserve structures, and autopoietic structures change in purposive directions. This is all well and good for the real biological individuals autopoiesis was originally meant to describe, but runs dead against the "value-neutral" definitions of structure and function which Luhmann still has a commitment to use. To accept autopoiesis as a model for social systems may involve adopting a corporatist or institutionalist politics and a teleological functionalism which Luhmann, for one, may not welcome.

Luhmann could, of course, maintain his commitment to "value-neutral" definitions of structure and function were he to confine autopoiesis to the individual actor in the social system. There is no theoretical reason why the autopoiesis of the individual could not be broadened to include speech and actions that sociologists ordinarily classify as social action. Indeed, Hayek's version of autopoietic law does exactly this. 93 So long as one maintains the nonindividualist status of values, as Hayek does, the realm of the social can be preserved. Values are then part of the material substrate on which individuals autopoietically maintain themselves. But Luhmann does not wish to locate society in an account of values, which he believes require a level of cohesion that pluralist and conflict-ridden advanced industrial de-

---

91. See, e.g., N. Luhmann, Differentiation, supra note 8, at 241-42.
92. Nor, for that matter, may Luhmann's pre-autopoietic version of autopoiesis, his notion of "self-reflexivity," be consistent with a nonteleological functionalism. See, e.g., the highly teleological language in N. Luhmann, Differentiation, supra note 8, at 236. Luhmann treads on especially dangerous ground when he applies "self-reflexivity" to function. See id. at 238-39.
democracies will not support. Instead, he prefers to locate society in communication, ways of talking about values among other issues. A social theory anchored in values can tolerate, or even welcome, the individual as a counterweight to values — the specification or working out of values in interaction. Norms — including legal norms — play the role in these theories of mediating between values, on the one hand, and individuals oriented toward values in concrete interactions, on the other. Luhmann's theory of society as communication tolerates neither values nor individuals. Values for him are what the individual desires, rather than what is desirable. Individuals are the desiring creatures of Hobbes' utilitarian calculus, rather than moral beings wrestling values into action through norms.

Communication replaces both values and the moral beings oriented toward values through norms. The self-reflexivity of communication, communication about communication, replaces norms as the chief integrating mechanism of society. Given Luhmann's goal of subordinating both values and individuals in social theory, confining autopoiesis to the biological individual would destroy the social theory of autopoiesis, as Luhmann understands it. The common law requires reference to both, we shall see, values and individuals. It is dynamic, rather than autonomous. Hence, Luhmann's social theory is not likely to be adequate to describe it.

Second, assuming the propriety of the autopoietic model for society, it is difficult to imagine an autopoietic subsystem of an autopoietic system. The functional definition of subsystems has its roots in Durkheim's conceptualization of the "division of labor" as a second device for social integration besides the "mechanical solidarity" of

94. See N. LUHMANN, DIFFERENTIATION, supra note 8, at 73-74.
95. "Society is the comprehensive system of all reciprocally accessible communicative actions." N. LUHMANN, DIFFERENTIATION, supra note 8, at 73 (emphasis in original).
96. See M. GOULD, supra note 90, at 5-8.
97. See N. LUHMANN, DIFFERENTIATION, supra note 8, at 97, 250-51. I am grateful to Mark Gould for pointing out to me the difference between "desired" and "desirable."
98. See Luhmann's criticism of Durkheim's emphasis on the moral problem of sociology in id. at 7-10. Luhmann is quite clear that the role of the person in autopoietic law is to serve "merely [as] a point of allocation and address." P. 339. This is the classic positivist notion of the person — a legal accounting device for reconciling the double entry accounts of action and sanction. The autopoiesis of the social system (hence legal system) must serve higher levels of complexity reduction than the person, who, admittedly, has her own subordinate level of autopoiesis in "consciousness." See p. 339.
99. See N. LUHMANN, DIFFERENTIATION, supra note 8, at 100-02, 349-50.
100. Hayek's is the model of an autopoietic theory that puts values and individuals, mediated by norms, at the center of social theory.
101. Teubner has especially focused on this problem. See pp. 217-41. I shall not try to wrestle here with Teubner's fascinating use of the "hypercycle," and his thesis that legal autopoiesis suggests the internalization of the evolutionary mechanisms of law. They are worth detailed study. See also pp. 361-67.
common language (perceptions) and values.\textsuperscript{102} The social groups that form around performance of a common function are bound together both by performance of the function and by a "second" tier mechanical solidarity, or common language and values oriented toward performance of the function, called occupational solidarity.\textsuperscript{103} Neither performance of the function nor occupational solidarity by itself yields an autopoiesis of the functionally bound subgroup (just as a social system with only mechanical solidarity cannot be autopoietic). The functionally bound subgroup has an autopoiesis only if it constitutes a social system within the general society, much as the cell forms an organism within the larger organism made up of cells. But the autopoiesis of the subgroup could not operate solely over the functional thematization of the subgroup within the larger society. A "legal subsystem" has an economy, a power structure, etc., but these interchange mechanisms of the "legal subsystem" would thematize power and money in their communications, not law. The acid test of the subsystem will always be whether it is successfully meeting the functional demands of the social system. The subsystem earns money, gets power, by meeting functional demands. Even a highly differentiated legal subsystem cannot obviously maintain the absolute control over production and reproduction of the legal code that autopoiesis requires.\textsuperscript{104} Even if a subsystem could, the autopoiesis of legal communications must also constitute an autopoiesis of the general social system of communications if the social system is to maintain its own operative unity and autonomy. Communications can serve two masters — "payment" can have both an economic and a legal significance (pp. 342-43) — but can be loyal to only one of them.

Luhmann is aware of the difficulty of imagining an autopoiesis of function-specific communications in the context of an autopoietic social system (p. 19). Luhmann thus confines legal autopoiesis to maintenance of a code, the integrity of a system of legal communications (pp. 25-26, 347). The effects of the code on "nonlegal" actions and communications — actual decisions of cases, bargaining in the shadow of actual decisions, the content of the normative elements of the code — need have no integrity, since they do not affect maintenance of the code. The legal system is normatively closed and cognitively open. Luhmann solves the subsystem problem quite cleverly by compressing law into language — legal communications. Actual decisions, bargaining in the shadow of decisions, the content of norms — everything we ordinarily regard as important about legal systems — is not law,

\textsuperscript{102.} See E. Durkheim, Division of Labor, supra note 30, at 70-111.

\textsuperscript{103.} See id. at 10-31.

\textsuperscript{104.} "The law's autonomy is in danger only when the code itself is in danger — for instance when decisions are taken in the legal system itself increasingly according to the difference between beneficial and harmful rather than the difference between legal and illegal." P. 347.
according to Luhmann, but nonlegal communication and action in the form of legal communication. Because Luhmann cannot allow legal autopoiesis to “disrupt” the autopoiesis of the social system, he must regard law as form only, the legal franking of a nonlegal, autopoietic social substance. The positivism of Luhmann’s autopoietic law is the autonomous code; the social substance the code bears is the natural law of the positivism.

Third, even if one can conceive of an autopoietic subsystem of an autopoietic social system, Luhmann’s assignment of law to a subsystem bristles with difficulties. Luhmann’s argument for an autopoietic legal subsystem is empirical: under conditions of functional confinement, and only under those conditions, legal communications form an autopoietic subsystem, characterized by the autonomy and unity of legal communications. The empirical test is whether any social system in fact compresses law into the autonomous code that Luhmann’s functionalism requires. If the answer is that no social system does, then Luhmann’s characterization of the “legal system” as an autopoietic subsystem is a deliberate choice freighted with normative consequence. We can surmise that Luhmann has exercised this choice in order to forward a program of suppressing the role in social theory of values and individuals, mediated by norms. Modelling the “legal system” as a social subsystem is simply not an option for social theories that put values and individuals, mediated by norms, at the center. The consequence for legal theory of de-centering values and individuals is at once positivism and naturalism. The consequence for social theory is a reification of legal institutions and an “evolutionary” preference for the autonomy and unity of legal systems.

For an empirical test whether functional confinement of the legal system is a necessary precondition of its autopoiesis, hence whether autonomy is a more important virtue for the legal systems of advanced industrial democracies than dynamism, we turn to the legal system of our advanced industrial democracy: common law.

VI. RESPONSE OF A COMMON LAW DENIZEN

The notion of a self-generating legal system should be familiar to lawyers trained in our tradition. Common lawyers are comfortable with the thought that the appropriate references for justifying legal decisions are prior legal decisions of the same order, and that every decision serves as a reference for future decisions. This is not a com-

---

105. So far as I know, Luhmann is the only major social theorist who assigns the legal system to a subsystem of the social system. Luhmann’s is clearly the work of a lawyer. Habermas treats the legal system as part-system, part-lifeworld. See, e.g., Habermas, Law and Morality, in 8 THE TANNER LECTURES ON HUMAN VALUES 251-59 (S. McMurrin ed. 1988) (criticizing Luhmann’s positivism and functionalism).
plete or sufficiently accurate description of the common law. Nevertheless, the common law at least superficially validates some version of autopoiesis. It is thus a good candidate for empirical validation of Luhmann’s insistence on functional confinement of the legal system to achieve autopoiesis.

The conception of a self-generating legal system is as familiar to common lawyers as it is bizarre to lawyers trained in the Continental traditions of positivism and naturalism. (Luhmann’s work should be much more radical and surprising to his European colleagues than it is to us.) These latter traditions model law on the basis of sciences that have no room for self-production. The materials of naturalist or positivist systems never trace their origins, as the common law does, to materials produced by the system. Positivist or naturalist materials ultimately come from outside the legal system proper, through the auspices of legislation or natural reason, which in turn are based upon morals and politics, not legal materials. It sometimes seems as if Luhmann has used autopoiesis to rework the traditions in which he was trained in order to fit a common law model.

However, with some notable exceptions, such as Karl Llewellyn, Americans have been shackled by the absence of an adequate model for the common law in positivism and naturalism. The Continental tradition has always supplied the “high talk” of American jurisprudence, the common law, its language of serious business. But positivism and naturalism are high talk only. They completely miss the ceaseless self-generative, hence self-transformative, activity marking the common law above any other jurisprudence. Autopoietic law, though another import, provides a clearer reflection of our jurisprudence than do the older models. Yet Luhmann’s functional confinement of autopoietic law does not provide an absolutely clear reflection. For that we must tinker with autopoietic law using a tradition we have lost sight of in modern legal theory: law as revelation.

My thesis is twofold. First, any fully autopoietic legal system must include the individual as such in the self-generating operations of the system. Second, any legal system that puts the individual at the center must resort to some version (which we can specify) of law as revelation.109

106. See infra text accompanying notes 115-19.
109. Lempert too suggests a critique along these lines. See pp. 166-68, 173-75, 186. He, by contrast, prefers to couch the critique in terms of the failure of autopoietic law to provide room for legislation. Lempert emphasizes the importance in Anglo-American law of equal access to the legal system by individuals and the status neutrality of law among individuals (pp. 166-68), but he does not turn these emphases into a critique of Luhmann. Nonetheless, Lempert’s version and mine are really two sides of the same coin: Luhmann maintains the autopoiesis of legal
A. Luhmann's Invitation

Though Luhmann's version of autopoietic law does not provide an absolutely clear reflection of the common law, Luhmann would never claim that it had to. Autopoiesis, first off, is not a model of the common law alone, but of legal systems in advanced industrial democracies, most of which are not common law systems. Bentham, Hegel, Weber - every heavyweight but Hayek who has considered the matter has found it puzzling that the first industrial economy arose in a jurisdiction whose legal system is as barbaric and irrational as the common law. The scientific (to Hayek, constructivist and autocratic!) codes of Continental legal systems seem to fit the rational-legal requirements of modern enterprise much better. Luhmann could, if he wished, join Bentham, Hegel, and Weber by treating the common law as an exception to these requirements.110

Then there is the matter of method. Luhmann is a scientist; autopoietic law is a scientific model in the tradition of Weber.111 The test of such a model, as we should expect of a science of the individual, is systems in advanced industrial democracies only by contracting them within a functionally defined subsystem of the social system. P. 174. Only my emphasis differs from Lempert's.

The link between our approaches is that once one has made individuals into tenants of their own legal system, then the law they make as individuals appears only as legislation. The legal system necessarily regards legislation as unpredictable, external, foreign. (Ronald Dworkin has recently tried to build a bridge between individuals and legislation through his notion of law as integrity. See LAW'S EMPIRE 151-275 (1986).) Disseized individuals avenge themselves legislatively upon the legal system in at least three ways. Acting en masse through interest groups they enact statutes; as judges they make laws in the guise of deciding cases; they make contracts as personal legislation.

I prefer to couch the critique in terms of the absence of individuals rather than legislation, because I believe it brings us closer to understanding a real dynamic underlying modern legal systems that sociologists of law (not to mention legal theorists) have neglected. Though we can mince words on the subject, it is best to treat this dynamic in terms of its purest and most explicit historical expression, which is revelation. See infra text accompanying notes 121-22.

110. I am on Hayek's team. He answers the "English question" of political economy by exploring the exact means by which the common law supported the expansion of industry. See 2 F. VON HAYEK, LAW, LEGISLATION AND LIBERTY 107-32 (1976).

Weber understood and respected the common law as a political phenomenon, but did not, so far as I know, grasp its connection with the development of the English economy in the century following the Bubble Act (1720). See M. GOULD, supra note 90, at 430 n.4. The Bubble Act cut firms off from their formal connection with the sovereign through the regulated company, driving them into a common law underground, which became the modern law of associations. See Jacobson, The Private Use of Public Authority: Sovereignty and Associations in the Common Law, 29 BUFFALO L. REV. 599, at 662 (1980). Weber looked to the "Protestant ethic" rather than to law for a transformation in patterns of capital accumulation. The formula is: the common law is unpredictable (unlike scientific legal systems), capitalistic enterprise requires a predictable legal system, the common law hindered rather than helped the development of capitalistic enterprise. Hayek turns the formula upside-down: scientific legal systems may be predictable (often as not they are wildly capricious), but their very "predictability" stifles enterprise.


111. See M. WEBER, supra note 37. See also supra text accompanying notes 34-37.
whether it helps disinterested observers “understand” the world in which people think they live, so that decisions they make, together or separately, appear meaningful or rational to the observers. The observers’ understanding must, in turn, be comprehensible to the people observed, but may not simply restate their self-understanding. The understanding must be an observation that the observed receive with their own understanding. (Here social science mimics natural science, where the test of validity is universal agreement on the basis of common observations. The difference is that universal agreement in social science includes agreement of the object being observed.) The observed’s understanding of the observers’ understanding will have fresh insights (about observers too!), requiring fresh efforts of understanding. Also, the self-knowledge the observed obtain in cooperation with the observers may lead to changes in the way the observed carry on their lives, requiring further cooperative efforts of understanding, and so forth.

The application of autopoiesis to the common law passes Weber’s test with flying colors. Luhmann uses autopoiesis to understand in a fresh way the fact that legal systems in advanced industrial democracies are at least partly self-referential, and the references of these systems are never fixed, but constantly changing. We denizens of common law systems understand in our own way Luhmann’s understanding. Autopoietic law need not be a perfect reflection of the common law to pass Weber’s test, only a recognizable one, and Luhmann’s reflection is certainly recognizable.

A recognizable reflection of a social phenomenon, according to Weberian science, invites the denizens of the phenomenon to respond to the understanding. Let us accept Luhmann’s invitation. He has suggested an insightful understanding of the legal systems of advanced industrial democracies that we common law denizens can understand. The common law strives (in a manner we shall have to pin down) to be

---

112. This will, in turn, lead to self-knowledge on the part of the observer and further self-knowledge on the part of the observed. Readers will recognize this as Habermas’ integration of Freud’s and Weber’s scientific methods. See J. Habermas, supra note 30, at 261-62, 292 (1971).


The grand alternative to Habermas’ synthesis of Freud’s and Weber’s conversational method stems from Marx. Marx’s methodology retains allegiance to the Baconian tradition of experimental science — an effort to isolate the “laws of motion of capitalism” through the coincidence of a theoretical and an empirical act of will. See supra text accompanying notes 21-22. The danger, of course, of retaining allegiance to the methodology of mechanism is that it will slide into positivism. Marx’s early writings maintained an allegiance to the other tradition of scientific knowing before the modern sciences of the individual: the observational method of species science (his notion of “species being”). Mark Gould has argued that Marx avoids positivism (and thus retains the species commitment of his early writings) by insisting on proper experimental conditions for attaining knowledge in social science. Gould describes the conditions in which valid social knowledge is possible as those of an “equitable society.” The equivalent of an “experiment” from this point of view is, of course, political action. See M. Gould, supra note 90, at xvii-xviii.
self-referential, and the common law constantly engages in self-transformation.

B. A Common Law Model

Luhmann's account of autopoietic law does not show that he understands the exact manner in which the common law is self-referential. (Perhaps he has not tried.) It also does not show that he understands the reason the common law constantly engages in self-transformation. (He should want to know.) Luhmann may not understand these matters, I suggest, because he has not freed himself from the positivist and naturalist orientations his tradition requires.

As a probable consequence of his dependency on physical or naturalistic models, Luhmann misses the method and motor of common law self-generativity: the role of individuals — ordinary legal persons — in generating legal norms, and the need of individuals to keep transforming them. It is probable (though not certain) that inclusion of individuals in a model of law prohibits the functional confinement of law to a subsystem of the social system. Thus the common law exhibits an expansive, world-filling dynamism constantly pressing to break the bounds of functional confinement.114

The difficulties Luhmann faces may not be endemic to autopoietic law, but only to Luhmann's use of it to respond to the peculiar (though widespread) concerns of his own tradition. Luhmann may have committed the noblest sin of social science: constructing an illuminating ideal type of a general phenomenon (the legal systems of advanced industrial democracies) and confusing the general phenomenon with a particular version of it. But the best social scientists, like Luhmann, commit sins precisely in order to have denizens correct them.

The common law reflection of autopoietic law starts from the notion of law in common law systems.115 The common law regards the legal norm as a compendium of applications of the norm by individuals in ordinary interactions. (An anchor of the idea that law is application is the doctrine of precedent: legal norms cannot exist apart from specific applications.) Law as application is a profound and far-reaching notion with four immediate consequences.

First, one who wishes to know a legal norm can start knowing it only by studying prior applications of the norm. Thus, reports of

---

114. See Jacobson, Legal Plenum, supra note 12. The common law is one of three dynamic jurisprudences, sharing a host of characteristics that set them against the two static jurisprudences, positivism and natural law. The most striking characteristic of the dynamic jurisprudences is that, unlike positivism and naturalism, they do not require a stable correlation of rights with duties. They are "correlation-breaking." For a full account of the differences, see id. at 879-83.

115. For a more elaborate account of these ideas, see id. at 886-91, 902-06.
cases, not black-letter rules, are the first place to look for rights and obligations. Cases sometimes state "rules," but rules are not norms, only a way of talking about the formulation of norms in cases. The norm is the rule-anchored-in-cases. A rule applied in a prior case was the rule for that case, and the doctrine of precedent demands only that it be considered in subsequent applications.

Second, one can know a legal norm completely only once one has completed one's own application. Common law norms are the procedure for their own application. The legal norm is procedurally thick and substantively indeterminate. To know the norm one must study a book of cases rather than a treatise setting forth general statements. The legal norm thus changes as those who are applying it in transactions proceed with their application. At the beginning of a relationship the "rule" component of the norm may be all the guidance law can or should supply to the parties in the relationship. The relationship itself is of a level of abstraction coordinate with the rule. As the relationship evolves, the fullness of prior applications of the norm become more relevant to the parties, precisely because their own application has more materials to compare to prior applications.

Third, the legal norm is the product of the prior applications and the present application. Hence the norm must change with every fresh application. Every application, no matter how routine, must be added to the book of cases. Even an application "on all fours" with prior applications contains the valuable information that the norm has not changed despite changes in the world since the prior applications.

Fourth, the legal norm may change only in certain directions in the fresh application. The common law constraint on changes in norms stems from an overriding common law norm that derives from the definition of law as application. Individuals using norms to conduct relationships must not behave as if the rule-component of the norm protects them, no matter how bad the consequences. Individuals must apply the norm as if the application is reciprocal. Judges, after all, are at least partly free to change the rule component of the norm. Even if they do not, judges and juries may disappoint ab-

---

116. We traditionally classify the revisionary power of the common law under the rubric of "equity." Though equity and law were institutionally separate in common law jurisdictions (and still are in some), the influence of equity on common law courts has always been profound. Since the joinder of equity and law, the revisionary power has unambiguously been the province of common law judges. I do not believe, in any case, that the development of a separate equity jurisdiction in the Middle Ages was adventitious. The English legal system included both equity and law, and I refer to the entire system as the common law.

117. Lest Luhmann complain that my account of reciprocity in the common law constitutes a naturalistic "super-norm" (p. 18), I emphasize that reciprocity flows from the definition of law in common law systems as application. In any case, Luhmann himself bases the legal theory in A Sociological Theory of Law, supra note 44, hence by implication in his autopoietic works, on the notion of reciprocity contained in the conception, "expectations of expectations" — a naturalistic super-norm underpinning Luhmann's positivism. See also supra note 95.

118. Anthony D'Amato, in a remarkable prefiguration of Luhmann's work in autopoiesis,
stract *a priori* predictions about the application of the norm. Individuals must always impress judge and jury that they have the character of acting reciprocally in their dealings. Respect for the latent rights of individuals who appear to be losers under the rule-component of a norm is an essential component of that character.

C. Common Law Autopoiesis

The model of the common law as application suggests a motor for the ceaseless self-transformation of legal norms in common law jurisdictions. The same motor almost certainly applies generally to the legal systems of advanced industrial democracies. The common law motor — the need of individuals as moral beings to engage in constant transformation of law defined as application — supplies a more satisfactory explanation for the perpetual motion and transformation of legal systems than Luhmann's, which reduces to tautology rescued by utilitarian functionalism.

The model also suggests the exact manner in which the common law is self-referential. The norm includes orientations toward the norm of each individual applying it. Common law self reference requires reference to the *selves* disclosing themselves through prior applications. This latter reflection, I suspect, is less clearly responsive to Luhmann's model in terms that would be useful or meaningful to theorists working in his tradition. Only they can say.

The role and needs of the individual in common law systems link the motor of transformation in the common law with the manner in which the common law is self-referential. Luhmann's focus on autonomy and order misleads him into eliminating or suppressing the role of the individual in autopoiesis. The elements of autopoiesis in his model are *legal communications*; the elements in common law, *individuals revealing themselves in norm application* (understood as norm creation). Because Luhmann focuses on the autonomy of legal systems and the contribution of legal systems to order, he contracts the legal system within the social system to the point where the individual as such is not a recognizable part of it. Inasmuch as individuals figure in Luhmann's model, they are the weak ones of utilitarian dogma, designed only to support the functional contraction of the legal system. The common law both serves and breeds very different sorts of individuals.

The realm of the social does not disappear in the common law

has described the pragmatic restraints on judges' freedom. D'Amato argues that the popular perception of the Realist formula, that law is what the official in charge of enforcing it will do, needs correction. The enforcing official will pay close attention to the predictions of what she will do, since to depart surprisingly from the predictions would diminish her power. Hence the correct formula is that of Holmes: law (for judges as well as lawyers) is a *prediction* of what the judge will do. See D'Amato, *The Limits of Legal Realism*, 87 *Yale L.J.* 468 (1978).
simply because the common law underscores the fate and needs of individuals. First, individuals figure in the common law only in the character they display through interaction oriented toward the values expressed in prior applications of norms. The individuals applying norms may have hosts of attitudes (personality, emotion) toward the application. The attitudes do not matter: only the display of character in interaction matters.

Second, the prior applications of norms to which individuals orient themselves necessarily include the characters expressed by other individuals in exemplary interactions. These prior expressions of character are themselves orientations toward values expressed through interaction. Hence the individual looking toward prior applications necessarily orients herself toward values expressed in prior applications. The values remain values, even though they include references to character.

Third, the overall orientation of persons living in common law systems — reducing the uncertainty of the application of norms through reciprocity of application — creates communities of norm application, congeries of persons conspiring to set parameters of application. The common law frees individuals to form partial and shifting communities defined by the mutual interest of individuals in specifying law (construed as application) for these communities. The common law sets up parameters of interaction under which individuals have an interest in constructing communities. The “social” in the common law appears as community, not structure.

Common law jurisprudence is not the only jurisprudence underscoring the fate and needs of individuals as members of communities. The common law interest in individuality — the display of character in interaction — is not the only possible interest. Other sorts of jurisprudence historically have emphasized different interests in individuality with a different vision of the social associated with each interest. One interest, for example, has been the self-perfection of individuals, usually found in jurisprudences emphasizing the duties of legal persons over their rights. The vision of the social associated with the interest of self-perfection is the cult, the society of members united in a quest for self-perfection. Another interest has been the liberation of individuals, emphasizing the rights of legal persons over their duties. The vision of the social associated with liberation is the association of property owners united by mutual recognition of right. These other interests are certainly found alongside common law jurisprudence in the American legal system. For example, American constitutional law emphasizes the interest of liberation. Nonetheless, the common law makes only one interest and its associated vision of the

The specific vision of the social in the common law does not at all support Luhmann’s distinction between normative and cognitive. The distinction is not even theoretically conceivable, which is the most Luhmann claims for it. Every normative reference absolutely requires cognition of the behavior of the legal person applying the norm in interaction. Every cognition of action is steeped in normative reference. The institutions of the common law facilitating this absolute unity of the normative and cognitive are quite elaborate, and bear careful scrutiny. The contributions of the jury, for example, have been inestimably important in warding off the tendencies of bureaucratic legal personnel to degrade the common law to a mixture of positivism and naturalism. The struggle over the directed verdict is only one procedural manifestation of the battle against the degradation of the common law. The jury has also undoubtedly stiffened the resolve of the bureaucratic personnel to use equitable criteria even where litigants do not have a right to trial by jury. Another example is the extraordinary success of constitutionalism in the United States and Great Britain, which almost certainly depends on a substructure of common law litigation and a common law understanding of the nature of right. These examples, unfortunately, exceed the scope of this essay.

The emphasis in the common law, which is at once intensely individualistic and communal, is more likely to support the operations of advanced industrial democracies than legal systems whose structure opposes amoral, want-seeking creatures to a social structure functionally designed to funnel and bridle the depraved activities of these creatures. The first modern industrial system did not arise in a common law jurisdiction by accident.

D. Common Law Revelation

Neither Luhmann nor the common lawyers have been without materials in the very core of Western jurisprudence with which to understand the role and needs of individuals as such in legal systems. Though neither positivism nor naturalism does the job, Luhmann’s tradition, in common with ours, offers a third model of law, law as revelation, in which the role and needs of individuals as such are central. Revelatory law is a model that legal theorists and sociologists have tried very hard to ignore, but it is worth understanding in the interests of science. Only the revelatory tradition, not positivism or naturalism, contains strong models of individuals that help us understand the motor and method of common law self-generativity.

120. For a more elaborate account of the three individualist jurisprudences, see Jacobson, Legal Plenum, supra note 12.
The notion of revelation — God speaking directly to (or through) a legal person (or persons) — is a crucial element of all historical legal systems, and the science-based legal theories we have seen so far, including Luhmann's version of autopoietic law, can be an accurate description only of a legal system that ruthlessly eliminates all forms of revelation. None does. The theorists of legal autopoiesis, like virtually all their scientific forebears, are guilty of the Enlightenment crime of excessively hating religion, to the degree that they refuse to theorize it.\textsuperscript{121} Hence they have failed to recognize revelatory moments in ordinary, modern, nonreligious legal systems — God (properly defined) speaking to or through legal persons one way or another.

What is at stake in the banishment of revelation from the scientific approach to law is the career of the individual. Though autopoiesis gives the individual more of a role in the legal system than either positivism or natural law, the legal person of autopoiesis very much remains either a want-choosing cipher as in mechanism, or the bearer or instrument of the system as in the old biology of species. A strong doctrine of individualism must have reference to some form of revelation — God speaking to or through persons. The consequence of not taking seriously or recognizing the revelatory moment in legal systems is that Luhmann's construction of autopoietic law lacks a strong doctrine of individuals, which the common law, in common with a wide range of both secular and religious legal systems, at once cultivates and requires.

The ordinary meaning of revelation requires some version of God speaking directly to (or through) a legal person (or persons). I accept the ordinary meaning, with the caveat that it is incumbent upon the receiver of revelation to say what she means by "God." The social study of religion as ideology, invented by Hegel in his \textit{Lectures on the Philosophy of Religion}\textsuperscript{122} and elaborated by Weber in \textit{The Protestant Ethic and the Spirit of Capitalism},\textsuperscript{123} picks up the thread of analysis where the "believer" stops saying what she means. Sociology can then trace the value-neutral, analytic continuation of terms left undefined by doctrine back into the heart of doctrine. Thus reworked, the sociologist is able to understand the relations between doctrine as an ex-

\textsuperscript{121} Not all have been guilty, however. Montesquieu, whose relations with the Enlightenment were ambivalent, to say the least, invented the sociological method of spirit ("esprit") precisely in order to use Enlightenment techniques to study the worlds created by religions. Hegel fashioned Montesquieu's discovery into a powerful analytic tool of general applicability in his \textit{Phenomenology of Spirit} ("Geist" is "esprit"). Hegel's intricate studies of the worlds created by spirit (or ideology, in Marx's view) are scientifically unsurpassed. \textit{See, e.g.}, G.W.F. Hegel, \textit{The Spirit of Christianity and its Fate (Geist des Christentums und Ihre Schicksal),} in \textit{EARLY THEOLOGICAL WRITINGS}, 182-301 (1948).

\textsuperscript{122} G.W.F. Hegel, \textit{LECTURES IN THE PHILOSOPHY OF RELIGION} (P. Hodgon ed. 1984) (first published in 1832).

pression of values and the system of interaction instantiating the values.

American jurisprudence has overt revelatory moments, such as the doctrine of the Founders in constitutional law.\(^{124}\) Judicial discretion also resembles revelation — the reference of a decision to the "feel" or "temperament" of the decisionmaker, rather than to a series of prior decisions.\(^{125}\) My thesis does not depend on these. Covert revelation is embedded in the structure of common law pragmatics: the status of the person vis-à-vis the norm and the norm vis-à-vis the person. Norms are revealed to decisionmakers through ordinary interaction (ordinary persons too are decisionmakers). The source of revelation is character manifest in interaction; the text of revelation is case law, understood as a record of exemplary interactions. Common law revelation thus has two moments: the orientation toward the norm of each individual applying it, and the reference in the norm to the selves disclosing themselves in prior applications. Revelation can thus be found in the focus of the common law on the individual case and in the character of persons making each case individual.

CONCLUSION

One may trace the casuistic and explanatory inadequacies of Luhmann's version of autopoietic law to one of two sources. Either scientific models themselves cannot fully convey the potential of law for governing human relationships or the autopoietic lawyers have not sufficiently mastered the epistemological subtleties of the new science from which they draw their model. I am not sure which is the case, since the new sciences of biology, psychology, and physics today are themselves similarly afflicted by terrible uncertainty.

One point is clear. If Luhmann wishes to be consistent with the methodological premises of autopoiesis, he should not want to claim validity for autopoietic law on the ground that it describes some legal system somewhere, just as the common law describes a possible legal system.\(^{126}\) The validity that rests on the description of possible facts is positivist validity. Luhmann's step away from positivism aims to place the model of autopoietic law within an evolutionary framework. Autopoietic law appears only after the social system has evolved sufficient functional differentiation to support an autonomous autopoietic legal subsystem. The model of autopoietic law thus becomes possible

\(^{124}\) See S. Levinson, CONSTITUTIONAL FAITH passim (1988).

\(^{125}\) See Yablon, Justifying the Judge's Hunch: An Essay on Discretion (1989) (unpublished manuscript); cf. Weisberg, Judicial Discretion, or the Self on the Shelf, 10 CARDOZO L. REV. 105, 107-08 (1988) (applauding Justice Brennan's credo that the judge necessarily instantiates personal values in decisions).

\(^{126}\) Karl-Heinz Ladeur's extremely rich paper explores this theme. See pp. 242-82. See also supra note 50. Like Patrick Nerhot, Ladeur would be delighted by the common law. See supra note 16.
at a certain moment in the evolution of the social system. Luhmann's general model of law includes all possible forms of the legal system, each appropriate to a different stage of social evolution. Luhmann thus anchors his positivism in a naturalistic evolutionary framework, where one observes (as in all naturalisms) all possible legal systems spread out over evolutionary time.\textsuperscript{127}

Luhmann's recourse to naturalism in order to rescue autopoietic law from positivism misconstrues the method of the modern sciences of the individual. The \textit{conversation} that is at the heart of that method requires that all possible legal systems be possible at one moment, not just in retrospect spread out over evolutionary time. Indeed such evolution as there may be favors increasing the instantiation of possible legal systems at a single moment.

Luhmann's methodology has the consequence that any single legal system he describes instantiates only one characteristic, such as autonomy. Either a legal system is the differentiated subsystem of a highly evolved social system — the sophisticated autopoietic law of an advanced industrial democracy — or it is a primitive, fundamentalist legal system coordinate with the entire social system. The legal system cannot be both at once.

Yet real modern legal systems exhibit all sorts of characteristics that, in principle, contradict each other. The American legal system uses the common law in some moments; it is positivist at other moments. It uses still other forms of jurisprudence we have only just begun to fathom. It is likely that no one model accurately describes any real legal system. Instead, one must look to the models as different expressions of values every legal system must at least consider. If a legal system insists on expressing only one value to the exclusion of others, then the others avenge themselves upon the jurisprudence of that system in the form of dilemmas, exceptions, and threats to the integrity of the system.\textsuperscript{128}

Every legal system must principally reckon with dynamism, because every legal system must fulfill different and often conflicting goals and values, including the welter of values glossed by the notion of individuality. The model of the common law is superior to Luhmann's model of an autopoietic legal system only if it more successfully reckons with dynamism. The energy that some legal systems pour into remaining static does not create stasis, only dynamism in forms the legal system cannot use or comprehend.

Not every contributor to \textit{Autopoietic Law} is as concerned as Luhmann with the value of autonomy. Not a single contributor, in-

\textsuperscript{127} I owe the thought about evolutionary time to a private conversation with Drucilla Cornell.

cluding Luhmann, is content to sacrifice the dynamism of autopoietic law to positivism and naturalism. The book is a testament to the interest legal theorists all over the world are showing in dynamic jurisprudence, and the relations of dynamic jurisprudence to individuality and community. Autopoietic law sharpens our understanding of these new and exciting prospects in legal theory, though it comes to us burdened with the special problems and perspectives of Luhmann's tradition.

We have our own special problems and perspectives. Any American reader who has a “conversation” with the essays in Teubner's collection will better understand the problems and perspectives of our tradition, and the enhanced possibilities for all traditions that modern legal theory is creating.