HOW THE LAW THINKS: TOWARD A CONSTRUCTIVIST EPISTEMOLOGY OF LAW

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I. JABBERWOCKY

> Twas bryllig, and the slythy toves did gyre and gymble in the wabe: all mimsy were the borogoves; and the mome raths outgrabe.
>
> American law professor commenting on Niklas Luhmann, "The Unity of the Legal System"

European and American scholars of law and society apparently have problems in communicating with each other. To invoke Lewis Carroll's authority on a piece of legal theory indicates how serious the problems are. After all, traced to its true origins, "Jabberwocky," the famous "Stanza of Anglo-Saxon Poetry" (Carroll, 1855; 1871: 191), means "weeks of woe" in its original German version (Scott alias Chatterton, 1872). And inextricably involved in the interpretation of the poetry is a certain Hermann von Schwindel . . .

This lack of mutual understanding is only a recent phenomenon. Communication was still easy when Merton's regime of middle-range theories was governing law and society. There was a consensus that from the patient observation of the real law in the real world, a body of nonspeculative, nonmetaphysical theories would evolve. And this consensus was reflected in a common, sober, professional, comprehensible language. However, with the "Return of Grand Theory," (Skinner, 1985), with the invasion of poststructuralism, critical theory, discourse theory, and autopoiesis in the sociolegal world, the unified discourse of law and society is falling apart again into different cultural provinces. The deplorable result is a fragmentation of theory languages, the "Jabberwocky" of sociolegal theory.

Obscurity of language, then, is the most common critical comment on those recent European theory fashions, be they of Parisian, Frankfurtian, or Bielefeldian origin. The language is said to be overly complex, often incomprehensible, and to conceal usually

For helpful criticism I would like to thank Zenon Bankowski, Klaus Eder, Michael Donnelly, Reiner Grundmann, Christian Joerges, Wolfgang Krohn, Giandomenico Majone, Neil MacCormick, David Nelken, Helga Nowotny, Alessandro Pizzorno, Joyce Reese, Gerhard Roth, Philip Selznick, Sean Smith.

LAW & SOCIETY REVIEW, Volume 23, Number 5 (1989)

trivialities behind a smoke screen of trendy words like legal discourse, communicative rationality, and legal autopoiesis.

Of course, bad translations play an unfortunate role in this exchange of ideas. And national cultural contexts are still so diverse today that the transplantation of a theory from one context to the other leads to a degree of incomprehensibility that can only be gradually reduced by careful explanation. And one should also concede that sometimes personal idiosyncracies of theorists render their texts needlessly difficult to understand. However, the core of the problem lies elsewhere. It is a question of whether the language is complex enough to match the complexity of the subject matter. The new theories on law claim to construct sociolegal realities that cannot be adequately expressed by ordinary language. For them, to give in to the demands of easy comprehensibility would be to compromise on the content of their message.

Let us take a concrete example. In the context of legal autopoiesis, several authors are working on a new theory of the legal person (collective actor, corporate personality; cf. Luhmann, 1984: 270ff.; Teubner, 1988a: 130ff.; Knyphausen, 1988: 120ff.; Hutter, 1989: Ch. 4; Ladeur, 1989b; Vardaro, 1990). In their language, "the social reality of a legal person is to be found in the collectivity: the socially binding self-description of an organized action system as a cyclical linkage of identity and action." What? More Jabberwocky? Do organizations think? How can they have the capacity to describe themselves? Linkage of identity and action? All this sounds like those infamous mystifications of collectivities. Obviously, collectivities do not act, but only individuals, and it is nothing but individual actions that are aggregated into collective action. So why not go back to Max Weber's more sober and comprehensible formulation of the same subject matter?

> These concepts of collective entities . . . have a meaning in the minds of individual persons, partly as of something actually existing, partly as something with normative authority. This is true not only of judges and officials, but of ordinary private people as well. Actors thus in part orient their action to them, and in this role such ideas have a powerful, often a decisive, causal influence on the course of action of real individuals. (Weber 1978: 14).

But is it still the same? Certainly, one can now easily understand the words. The message, however, is lost. The novelty of the construction lies in the following issues that depart point by point from the world views invoked by ordinary language:

1. Organizations do not consist of human individuals as members, but of communications, more precisely of decisions as their self-constituted elements.
2. Organizations do "think." It is through internal communication that they construct social realities of their own, quite apart from the reality constructions of their individ-

ual members. In short, organizations are epistemic subjects.

3. Organizations are not *per se* capable of collective action. They transform themselves into collective actors by communicatively constituting their identity.
4. The capacity for collective action emerges when organizations in their collective identity produce actions and, vice versa, organizational action produces their collective identity.

Obviously, these four issues suggest a social reality of the legal person that lies far beyond the well-known territories of fiction, group or entity theories of corporate personality (for the ongoing discussion in terms of those classical theories, cf. Horwitz, 1985; Dan-Cohen, 1986; Schane, 1987; Roos, 1988).

This example should have made clear that the above-mentioned communication problem is not due to obscurity in language but to the limited capacity of our language to express the construction of newly perceived social realities. This, at least, is what the following new theories on law—post-structuralism, critical theory, and autopoiesis—have in common. It is true that Michel Foucault, Jürgen Habermas, and Niklas Luhmann "gyre and gymble in the wabe," but they do so because they imagine social realities whose reconstruction clearly goes beyond the limits of ordinary language. What makes them seemingly incomprehensible is their radical departure from epistemological premises that are deeply embedded in contemporary thinking on law and society, particularly, from what Pizzorno (1989) polemically calls the reification of a "metafisica quotidiana"—epistemological realism and methodological individualism. Although poststructuralism, critical theory, and the theory of autopoiesis develop quite different visions of modern law, they converge in their antirealism and their anti-individualism.[1]

One should hasten to add that antirealism does not mean epistemological idealism, and anti-individualism does not mean methodological holism/collectivism. We are not confronted with a revival of the old dichotomies realism/idealism and individualism/collectivism that dominated the legal theory debates in the first half of the twentieth century. It is neither Kelsen nor Duguit who

[1] Given the humanistic orientation of critical theory, it might sound strange to characterize this theory as anti-individualistic. However, we are not talking about moral-political options, but theory constructions. In a threefold sense, this theory is anti-individualistic: (1) in its critique of methodological individualism in economic and rational actor theories, (2) in its replacement of monological theories of norm formation by dialogical ones, (3) in locating the discourse in the center of cognition, and not the classical epistemological subject (cf. "communicative versus subject-centered reason" in Habermas, 1987a: Ch. 11; and Habermas, 1984: Ch. 3 in general).

is on the agenda of legal theory today. Rather, in the return of Grand Theory, epistemological realism is transformed into a new epistemological constructivism, and the agents of methodological individualism are replaced by constructs such as discourse, social self-reflection, and self-organization. What does this radical reorientation of social theory mean for law?

For law, the crucial point is the combination of both the change in epistemology and the new perception of individuality: constructivism rules out the naive reality assumption that human actors through their intentional actions make up the basic elements of society. From this combination follow the main theses of this article:

1. Under a constructivist social epistemology, the reality perceptions of law cannot be matched to a somehow corresponding social reality "out there." Rather, it is law as an autonomous epistemic subject that constructs a social reality of its own.
2. It is not human individuals by their intentional actions that produce law as a cultural artifact. On the contrary, it is law as a communicative process that by its legal operations produces human actors as semantic artifacts.
3. Since modern society is characterized on the one side by a fragmentation into different *epistèmes*, on the other side by their mutual interference, legal discourse is caught in an "epistemic trap." The simultaneous dependence on and independence from other social discourses is the reason why modern law is permanently oscillating between positions of cognitive autonomy and heteronomy.

"Social construction of reality" apparently has become, after Berger and Luckmann (1966), received wisdom in sociology (see, e.g., Bloor, 1976; Latour & Woolgar, 1979; Knorr-Cetina, 1984; Gilbert & Mulkay, 1984; Collins, 1985; Fuller, 1988). However, our three theses show that there is a more profound version of social epistemology than the usual understanding of how social institutions, scientific communities, and laboratory cultures influence individual perception. There is more to social epistemology than the "interests" of social agents that are responsible for the manipulation of knowledge (Barnes, 1974). The three new theories under consideration here—poststructuralism, critical theory, and theory of autopoiesis—have radicalized the notion of the "social" in social cognition which is worthwhile being examined in our context of legal cognition. What is the precise meaning of the somewhat ambiguous statement that law constitutes an autonomous reality? Similarly, what is meant by saying that the individual is a mere construct of society and law? And, above all, how does the law "think"?

II. DISCOURSE AND AUTOPOIESIS

> It is comforting, however, and a source of profound relief to think that man is only a recent invention, a figure not yet two centuries old, a new wrinkle in our knowledge, and that he will disappear again as soon as that knowledge has discovered a new form (Foucault, 1974: xxiii).

Not only are law and economics irritated by Michel Foucault's antirealist and anti-individualist provocation, but most strands of social theory that are influencing modern legal thought feel uncomfortable with poststructuralism's decentering of the subject. Under the enormous influence of the "founding fathers" of methodological individualism, Hayek (1948, 1973) and Popper (1953), the quasi-natural reality of individual human actors is assumed by contemporary economic and social theories, such as theories of microfoundations (Weintraub, 1979; Nelson, 1984) and rational actor theories (Elster, 1983, 1985), which demand that any collective phenomenon be reduced to intentional actions of human individuals. In an analogous fashion, the reduction of social macrophenomena to characteristics of individuals is quasi-axiomatic for sociological behaviorism (Homans, 1961). But also for sociological theories on law in the tradition of Max Weber's interpretive sociology, the reality of the acting individual is a fundamental assumption. "After all, the actions of individuals form society" (Aubert, 1980: 119). And even social theorists pursuing structuralist and systemic approaches feel compelled to correct them with an infusion of individualism (e.g., Crozier and Friedberg, 1977; Giddens, 1987: 98ff.; for the legal system, Febbrajo, 1985: 136; Kerchove and Ost, 1988: 157ff.; Ost, 1988: 87).

And it is indicative of the epidemic character of the individual-as-reality-syndrome that even critical legal authors who are deeply influenced by Foucault's ideas and enthusiastically take over his political messages plainly refuse to draw the epistemological consequences. Duncan Kennedy, in his recent analysis of legal indeterminacy (1986: 518) reveals a highly individualist bias for the reflective legal subject and law's communicative aspects. Thus, concentrating on the individual judge's reflections and strategic considerations, he is as far away from a discourse analysis as are his "liberal" adversaries. And Robert Gordon (1984: 117ff.) explicitly rejects the anti-individualist tendencies in structuralism and poststructuralism as undermining the humanistic intentions of critical legal thought.[2]

What makes this combination of realism and individualism in contemporary legal thought so viable is not so much its inherent

[2] There are important exceptions among the critical scholars who develop serious alternatives to the prevailing individualism, above all Thomas Heller (1984, 1988) and David Kennedy (1985). But these exceptions confirm our rule: it is their language, even in their own intellectual circles, that has to struggle with the Jabberwocky syndrome.

virtues but the lack of credible alternatives. The traditional alternatives, epistemological idealism and methodological collectivism, are seen as unattractive—and rightly so. But is it true that the only available alternatives are those that read "as if these impersonal structures had a life of their own and human beings were enslaved to the needs of that life-cycle, building or demolishing as the World-Spirit might dictate" (Gordon, 1984: 117)?

As I will discuss in the following pages, there are alternatives to the prevailing realist and individualist modes of thinking. From the diffuse contemporary movement toward "social construction of reality" and "decentering of the subject," I would like to single out three theorists who have contributed to a more profound understanding of sociolegal cognition and who represent at the same time the most important intellectual strands in Western Europe: Michel Foucault (poststructuralism), Jürgen Habermas (critical theory), and Niklas Luhmann (theory of autopoiesis). What they have in common is to replace the autonomous individual, not with supra-individual entities, but with communicative processes. They differ, however, in their identification of the new cognizing unit. In Habermas's version of critical theory correspondence theories of truth are overturned by consensus theories and "intersubjectivity" takes the place of the epistemic subject. Foucault and Luhmann are even more radical in their disenchantment of the human individual. For Foucault, the human individual is nothing but an ephemeral construction of an historically contingent power/discourse constellation, which dictates the *epistème* of a historical epoch. Luhmann completely separates psychic processes from social ones and perceives the human individual in society as a communicative artifact, as a product of self-observation of social autopoiesis. The new epistemic subjects are autopoietic social systems.

III. JÜRGEN HABERMAS: INTERSUBJECTIVITY AND CONSENSUS

To arrive at a legal epistemology that really deserves its name, three important changes in our perception of law and society have to be made: first, from realism to constructivism; second, from individual to social construction of reality; and third, from law as a rule system to law as an epistemic subject. While the first one leads to a certain modification of Kantian positions, the other two changes break new ground in social and legal theory. The second change reveals the social foundations of cognition in a more radical way than traditional sociology of knowledge ever has done, and the third one attributes to the discursive practices of law the production of an autonomous social reality.

In this reorientation of social and legal cognition Habermas's theory of communicative rationality (Habermas, 1971a, 1971b, 1974, 1975, 1984, 1987a, 1987b, 1988) plays a prominent role. Habermas's

key concept of "rational discourse" highlights the crucial role of procedure in empirical and normative cognition and at the same time his "universal pragmatics" takes account of the social dimension in moral and legal cognition, as against a predominantly individualist epistemology.

Habermas rejects traditional correspondence theories of truth (from Aristotle to Tarski) according to which statements are true if they correspond to an external reality. Instead, he follows a consensus theory of truth, which declares as the criterion of truth the "potential" consensus of all discourse participants (Habermas, 1971b: 123, 1973: 211). This move, of course, creates the need to identify an independent criterion in order to distinguish true from false consensus. Going through a sequence of different criteria, Habermas finally finds it in the presupposition of an "ideal speech situation" which in itself is defined by certain formal and procedural characteristics (Habermas, 1984: Ch. 3).

It is this proceduralization of the truth criterion which has rendered Habermas's discourse theory so important for law (see for example, Alexy, 1978: 219ff.; Günther, 1988). It makes the theoretical-empirical discourse of the sciences directly comparable to the practical-normative discourse in politics, morals, and law: their validity claims depend on the correctness of procedure (Habermas, 1984: Ch. 3). And it opens the way to a rethinking of the modernity of law in which Max Weber's thesis of the materialization of formal law is replaced by concepts of proceduralization of law (Habermas, 1985: 215ff., 1987c: 1; Wiethölter, 1985, 1986; Günther, 1988; Frey, 1989: 55ff.; Joerges, 1989; Ladeur, 1989a; Preuss, 1989).

Habermas's other main contribution to an epistemology of law is to take account of the social element in empirical and normative cognition. His philosophy attributes "epistemic authority" no longer to the autonomous subject, but to the communicative community (Habermas, 1983: 26; 1988: 63ff., 80). While traditional epistemology situates cognition exclusively in the consciousness of the (empirical or transcendental) subject, Habermas recognizes that cognition is basically a communicative process. "Intersubjectivity" takes the place of the Kantian epistemic subject. It is the authentic consensus of the communicative community and not the consciousness of the autonomous individual that determines truth in cognitive and normative issues. Thus Kant's famous question: "What are the conditions for the possibility of cognition?" is redirected from the conditions of consciousness to those of communication. And even transcendentalism becomes socialized: the new *a priori* is represented by the "ideal speech situation," the presupposition of which is a condition of the possibility of communication (Habermas, 1971b: 136; 1983: 53; 1984: Ch. 3).

However, the "*a priori* of the communicative community" (Apel, 1973, 1988; Böhler, 1985) is at the same time one of the great

problems of this theory. With the apriorization of certain features of communication, Habermas attempts to escape from the "paradoxes of self-reference" (Wormell, 1958; Quine, 1976; Krippendorff, 1984; Barwise and Etchemendy, 1987) that necessarily emerge from his hierarchy of discursive justification. The core of Habermas's theory is in the self-application of discursive practices: the procedures of discourse can be justified only by discourse whose procedures in turn have to be justified by discourse.[3] And in order to avoid infinite regression or circularity, Habermas resorts to communicative transcendentalism.

Closely related to the transcendentalist foundation of rational discourse are the ambiguities of "intersubjectivity" that represent the other principal unresolved problem in Habermas's account of social cognition. What is meant: elements or relation? Consciousness or communication? Psychic or social processes? Habermas's epistemic subject oscillates between these two positions without ever finding its identity in either world (for the controversy on intersubjectivity versus communication, see Habermas, 1987a: Ch. 12, 1988: 95ff.; Luhmann, 1986c: 41ff.). It seems as if Habermas again attempts to avoid the paradoxes of self-reference in discourse, this time by changing the system reference. If discourse can be founded on discourse only recursively, need it not then be founded on human consciousness?

IV. MICHEL FOUCAULT: DISCOURSE AND *EPISTÈME*

Foucault's ideas on discourse and power can be read as a radicalization of Habermas's epistemological position. Indeed, Foucault directly attacks what we have just described as the main unresolved problems in Habermas's account: the foundation of discourse in a communicative *a priori*, and the ambiguous role of individual consciousness in intersubjectivity. Foucault's main contribution to a social epistemology is to liberate the core concept of "discourse" from any transcendental or psychic foundation. Of course, this does not save him from the traps of self-referentiality. Foucault's escape is at the same time the most famous and the weakest point of his theory—the ubiquity of power.

Foucault's starting point is constructivist: reality is not something external to cognition, but is constituted, "constructed" by cognition itself. However, in sharp contrast to the classical tradition, it is not the individual consciousness of the subject that constitutes reality. Nor is it intersubjectivity, as in Habermas's theory, the communicative result of interaction between human actors.

[3] The problem of infinite regression/circularity in Habermas's theory of discursive justification is perhaps most clearly expressed in Habermas, 1971b: 123 ff., and 1973, 255 ff.

Rather it is "discourse"—an anonymous, impersonal, intention-free chain of linguistic events (Foucault, 1972: Ch. 2). One should hasten to add that this is not a structuralist position (see Dreyfus and Rabinow, 1982: 44ff.). Discourse in Foucault's account is much richer than the abstract orders of signs in structuralism. It is social practice, not social structure; it is *parole*, not *langue*. The basic elements of the discourse are not signs, but *énoncés*, that is, social usage of language that constructs reality. The task of discourse analysis does not consist, in Foucault's words, of "treating discourses as groups of signs (signifying elements referring to contents or representations) but as practices that systematically form the object of which they speak" (Foucault, 1972: 49). Discourse is both event and structure, "a stream of linguistic events in space and time as well as a highly selective organization of linguistic events" (Honneth, 1985: 164). And it is this historically contingent social practice of discourse that dictates the *epistéme* of a certain historical epoch, that defines the conditions for the possibility of cognition, not in an atemporal universal manner, but temporally, concretely, locally (Foucault, 1974: Ch. 2, 3, 7, for the sciences, 1979, for law).

Such a radical social epistemology has no place for individual consciousness and the intentional actions of human subjects and no need for an *a priori* foundation. The human subject is no longer the author of the discourse. Just the opposite: the discourse produces the human subject as a semantic artifact (Foucault, 1974: Ch. 9). At the same time, discourse formations are historically contingent, lacking any *a priori* foundation. Every society has its own order of truth, its own politics of truth.

Now, it would be a consequence of this way of thinking that discourse formations, those highly autonomous social practices, would themselves produce the criteria for their own transformation. Dreyfus and Rabinow, for example, clearly see this necessary self-referentiality as a condition for structural change of discourses: Since "he is committed to the view that discursive practices are autonomous and determine their own context . . . he must locate the productive power revealed by discursive practices in the regularities of these same practices. The result is the strange notion of regularities which regulate themselves" (1982: 84). Foucault, however, stops short of those paradoxes of self-reference. He withdraws from the necessary consequences of his own construct and introduces the concept of power in order to externalize self-referential relationships. In his later thinking, he gives up the idea of the autonomous discourse as the new epistemic subject and resorts to the ubiquity of power as a quasi-transcendental foundation of discursive practices (for a critique, see Honneth, 1985: 168ff.; Habermas, 1987a: Ch. 10).

V. NIKLAS LUHMANN: CONSTRUCTIVISM AND AUTOPOIESIS

The paradoxes of self-reference seem to be the principal obstacle to the development of an authentically social epistemology. Habermas and Foucault have made important contributions, but the radical consequences of their ideas seem to be blocked by self-referential structures (circularity, tautology, infinite regression, paradox) in their specific versions of discourse theory. How can rational discourse be justified, if not by rational discourse itself (Habermas)? How can those discourse formations that govern the *epistème* of a whole historical epoch be transformed if not by those discourse formations themselves (Foucault)? Both authors are well aware that these questions necessarily lead to paradox, but their solution is to avoid the paradox at any cost. Of course, in the end, the paradoxes of self-reference cannot be avoided; they simply reappear at the termination of their escape route. When Habermas finds the transcendental foundation of communication in the distinction between the ideal speech situation and real speech situations, is this distinction, then, in itself empirical or is it transcendental? Alternatively, when he reintroduces the subject to the discourse, the classical paradoxes of the self-reflecting subject are obviously bound to reappear. When Foucault identifies the foundations of discourse in ubiquitous power-constellations he does so at the price of the self-referential paradoxes of power.

The theory of autopoiesis (Maturana and Varela, 1980; von Förster, 1981; Luhmann, 1984) deals with these paradoxes of self-reference in a different way: Do not avoid paradoxes, but make productive use of them! If social discourses are autopoietic systems, that is, systems that recursively produce their own elements from the network of their elements, then they are founded on that very self-referentiality that Habermas and Foucault are desperately trying to avoid (Luhmann, 1986a: 172; 1986d: 129; 1988b: 153). As autopoietic systems, discourses cannot but find justification in their own circularity and cannot but produce regularities that regulate themselves and that govern the transformation of their own regularities. The paradox of self-reference then, is not a flaw in our intellectual reconstruction of discourse that we have to avoid at all costs, but is its very reality that we cannot avoid at all. And the recursive application of operations to the results of these very operations does not necessarily lead to paradoxical blockage paradox or to sheer arbitrariness, but, under certain conditions, to the emergence of "eigenvalues" (Förster, 1981: 274; 1985: 36). From continual recursive "computation of computation," social discourses "blindly" learn those modes of operation that are valid in coping with their environment to which they have no direct access (for an elaboration of these somewhat jabberwocky remarks, see Teubner, 1989).

The epistemological consequence is a radical constructivism (Piaget, 1971; Glasersfeld, 1975, 1981, 1985; Maturana & Varela, 1980; Förster, 1981; Luhmann, 1984: 647ff.; Roth, 1984, 1987; Arbib & Hesse, 1986; Schmidt, 1987). Any cognition—be it psychic or social, be it scientific, political, moral, or legal cognition—is a purely internal construction of the outside world; cognition has no access whatsoever to reality "out there." Any cognitive activity—be it theory or empirical research—is nothing but an internal construction by the cognizing unit; and every testing procedure that pretends to examine the validity of internal constructions against outside reality is only an internal comparison of different world constructions.

In this radicalized version of the "social construction of reality," there is no place for individual action and thought (for the relation of individual and social observation, cf. Luhmann, 1983: 1; 1985: 402; 1986b: 313). Social autopoiesis is exclusively based on communication—defined as the synthesis of utterance, information, and understanding—that recursively reproduces communication (Luhmann, 1984: 193ff., 1986b: 172 ff.). Social construction of reality is sharply separated from psychic construction of reality. Here lies the important difference from Habermas, who in the ambiguous concept of intersubjectivity blends communication and consciousness, and also from Foucault, for whom the subject is nothing but a historically contingent construct of shifting discourse/power constellations. For the theory of autopoiesis, psychic processes form a closed reproductive network of their own—psychic autopoiesis—accessible only to themselves and inaccessible to any communication. Communication in turn forms a closed autoreproductive network of its own—social autopoiesis—accessible only to communication and inaccessible to any psychic processes. Certainly, human individuals reappear in this world of communication, but only as communicative constructions, as semantic artifacts, that have no correspondence to consciousness, to the autopoietic processes in the psychic world (Luhmann, 1984: 158ff., 1986b: 313ff.). Psychic and social processes do coexist; they are "coupled" by synchronization and coevolution, but there is no overlap in their operations. There is nothing but a symmetry of reality constructions: psychic processes produce mental constructs of society, and social processes produce communicative constructs of the psyche.

In these two aspects—radicalization of constructivism and deindividualization of discourse—Luhmann is expanding on what Habermas and Foucault have developed in their versions of social epistemology. However, there is a third aspect in Luhmann's theory of autopoiesis that clearly goes beyond discourse analysis in its Parisian or Frankfurtian version—this is the view of modernity as an irreconcilable conflict of different *epistèmes* (Luhmann, 1988a: 335ff.). While Foucault sees in history the ruptures of discourse

formations that dictate one paradigmatic society-wide *epistème* for a certain historical epoch, and interprets the modern epoch as the governance of one pervasive "subjectivist" *epistème* following the Kantian revolution (Foucault, 1974: Ch. 9f.; 1979: Ch. 4), Luhmann views modernity as the fragmentation of society into a plurality of autonomous discourses, as the multiplication of *epistèmes* in society. The crucial feature of modern society is the loss of a unifying mode of cognition. Society is seen as fragmented into a multiplicity of closed communicative networks. Each communicative network constructs a reality of its own that is, in principle, incompatible with the reality constructions of other networks. At the same time, there is a multiplication and fragmentation of individualities that corresponds to the multiplication and fragmentation of social discourses. On the basis of its specific code and programs, each specialized communicative network produces "persons"—semantic artifacts of individual actors—to which actions are attributed (Luhmann, 1984: 155ff.). The "Multiple Self" (Elster, 1986; Etzioni, 1988) is the product of the fragmentation of social discourses in modernity.

This fragmentation of society into different *epistèmes* is one of the strongest points in Luhmann's theory—and at the same time its "blind spot." The emphasis on fragmentation, differentiation, separation, closure, and self-reference of social *epistèmes* creates problems, to say the least, as to how their interconnection, interference, openness, and hetero-reference can be theoretically reconstructed (for a more detailed critique, see Teubner, 1990). Unlike Habermas and Foucault who, at any cost, try to avoid the traps of self-reference, Luhmann courageously faces self-referential realities in law and society. He even declares law to be founded on the paradoxes of self-reference (Luhmann, 1988b). But a theory that deals extensively with self-reference, may ultimately be caught in the self-created closure of self-referential constructions. And the obvious problem that autopoiesis theory has to face is how to deal with the interrelations of different autonomous *epistèmes*, their conflicts, their incompatibilities, their interferences (for first steps in this direction, see Luhmann, 1988a, 1990). The open questions for a theory of fragmented *epistèmes* are: Is there something like an epistemic minimum in modern society that serves as a common base for the autonomization of social discourses? Does one find covariation or even co-evolutionary trends among autonomous social *epistèmes*? Or is the only way to connect them through the reconstruction of an *epistème within the framework of another epistème*? These questions will reappear when we examine in detail, on the basis of the foregoing discussion, how a constructivist epistemology of the law reconstructs legal cognition in its conflict with other modes of cognition in society (see below VII and VIII).

VI. LAW—AN EPISTEMIC SUBJECT?

How does the law think? Mary Douglas, in a recent book, has again raised the old question: *How Institutions Think* (1986). After an exciting flirtation with Emile Durkheim's "collective consciousness" and Ludwig Fleck's "Denkkol!ektiv," she finally finds her way back to good old individualism: Of course, it is the individual member of the institution that thinks. However, his/her thinking is influenced by institutional context. In this version of social epistemology, the social element is represented by socialization of the individual mind. That's it. Collectivism is banned and individualism happily survives after a healthy dose of socialization.

From our selective reconstruction of Habermas, Foucault, and Luhmann on social epistemology, the picture changes dramatically. It is true that individual cognition is shaped by social institutions such as law, through socialization (and here constructivism would add that since there is no access from communication to consciousness, socialization can only be self-socialization). But this is only half the story. The other half is that institutions such as law do "think" independently from their members' minds. The law autonomously processes information, creates worlds of meaning, sets goals and purposes, produces reality constructions, and defines normative expectations—and all this quite apart from the world constructions in lawyers' minds. Such a constructivist legal epistemology is at the same time nonindividualist and noncollectivist. It needs no recourse to individual actors and intentions; at the same time, it does not presuppose the existence of a supra-individual collective entity, "Denkkollektiv," "conscience collective," World III, legal consciousness, *Weltgeist* . . .

Law is communication and nothing but communication. By this very conceptualization it is possible to avoid the traps of methodological individualism that would define law as a set of rules constraining individual action and that, apart from the catchall phrase of unintended consequences, has no tool with which to analyze of the autonomy of the social, not to speak of the "legal proprium" (Selznick, 1968). At the same time it avoids the traps of collectivism that views law as a supra-individual subject and that cannot explain who is, in fact, acting in the name of the *Weltgeist*.

The precise construction is as follows (for an elaborate discussion of the characteristics of autopoietic law, see Teubner, 1988b, 1988c, 1990). Law is defined as an autopoietic social system, that is, a network of elementary operations that recursively reproduces elementary operations. The basic elements of this system are communications, not rules; law is not, as analytical-normativist legal theories have it, a system of rules. On the other hand, the sociological-realist definitions of law as a system of legal professionals and organizations are problematic as well, because they see human actors as the basic elements of law and other social institutions.

The self-reproductive character of law as a social process becomes intelligible only if one chooses communications as the law's basic elements. Law as an autopoietic social system is made up neither of rules nor of legal decisionmakers, but of legal communications, defined as the synthesis of three meaning selections: utterance, information, and understanding. These communications are interrelated to each other in a network of communications that produces nothing but communications. This is what is basically meant by autopoiesis: the self-reproduction of a network of communicative operations by the recursive application of communications to the results of former communications. Law as a communicative network produces legal communications.

Legal communications are the cognitive instruments by which the law as social discourse is able to "see" the world. Legal communications cannot reach out into the real outside world, neither into nature nor into society. They can only communicate about nature and society. Any metaphor about their access to the real world is misplaced. They do not receive information from the outside world which they would filter and convert according to the needs of the legal process. There is no instruction of the law by the outside world; there is only construction of the outside world by the law. This is not to say that the law arbitrarily "invents" social reality. A constructivist perspective should not be confused with "methodological solipsism" (Fodor, 1980); it rather looks for a "middle path" between representationalism and solipsism (Varela, 1984: 217). Legal constructivism, then, presupposes the "existence" of an environment for the law. The point is not a monadological isolation of the law, but the autonomous construction of legal models of reality under the impression of environmental perturbations. Legal order from social noise!

What about the world perceptions of lawyers and lay people? Is it not their aggregation that forms the collective world view of the law (cf. the actor-based objections against an autopoietic law by Febbrajo, 1985: 134ff.; Kerchove and Ost, 1988: 157ff.; and Ost, 1988: 87ff.)? Of course, the communicative process of law needs lawyers and lay people; it would not work without their intentions, strategies, and actions. But their ("subjective," internal, psychic) intentions never enter the ("objective," external, social) communication of law. They only make up part of the psychic processes, accompanying the social process of law and co-evolving with it. Law as a communicative process is not accessible to any of those accompanying psychic processes of lawyers and lay people, and, vice versa, it has no access to them. They work only as "perturbations," as "chocs exogènes" (Kerchove and Ost, 1988: 159) under the pressure of which the communicative process of law builds up its own autonomous order and creates the world of legal meaning (cf. Förster, 1981; Teubner, 1990).

But does the law as a social process not constantly deal with

real people? Is the law not driven by actual motives, strategies, actions of clients, professionals, judges, and legislators? Does the law not constantly refer to mental states of real people, to their intentions, goals, consent, dissent, errors, negligence, *mens rea*? Obviously the law does so. But the "persons" the law as a social process deals with are not real flesh-and-blood people, are not human beings with brains and minds, are not the above mentioned autopoietic psychic systems. They are mere constructs, semantic artifacts produced by the legal discourse itself. Mental states are "in reality [sic!] constructs of practical discourses, necessary for the formation of communicative circles, of discursive communities" (Pizzorno, 1989: 9).

As social constructs, they are indispensable to legal communication, because law as a social process needs to attribute communication to actors (individual or collective ones) in order to continue its self-reproduction. But these "actors" are only role-bundles, character-masks, internal products of legal communication (for an elaboration on collective actors, see Teubner, 1988a: 133ff.; 1988c: 66ff.). The densely populated world of legal persons, the plaintiffs and defendants, the judges and legislators, the parties to a contract, the corporations and the state, is an internal invention of the legal process. Not only the corporation, but any legal person—be it collective or individual—is nothing but that famous "artificial being, invisible, intangible, existing only in contemplation of law," discovered by Chief Justice Marshall in the celebrated case of *Dartmouth College* v. *Woodward*, 4 Wheaton 518, 627 (1819).

So human actors have a "double identity" in the world of autopoiesis. While in their social existence, they are pale constructs of autopoietic social systems, among them the law; in their psychic existence, they are themselves vibrant autopoietic systems. It is plainly wrong to argue, as some critics do, that autopoiesis dehumanizes society (Grünberger, 1987), has no place for actors and intentions (Schimank, 1985: 421; Mayntz, 1986; Ost, 1988: 87ff.; Rottleuthner, 1988: 122), does not account for the individual as epistemic subject (Podak, 1984: 734; Frankenberg, 1987: 296), and represents a "dehumanisation totale du droit" (Grzegorczyk, 1989: 12). The point is not the individual subject withering away, but the multiplication of centers of cognition. Social discourses are the new epistemic subjects that compete with the consciousness of the individual. Insofar as autopoiesis insists on the epistemic autonomy of a multiplicity of social discourses, it takes part in "decentering the subject," that is, moving the subject away from its privileged position as the sole and ultimate center of cognition. To repeat, if we talk about human actors in the law we have to distinguish carefully between the autopoietic reproduction of human consciousness, that is, the operative reality of psychic processes, and the autopoietic reproduction of the social life of law in which human actors are not elements but constructed social realities.

VII. THE EPISTEMIC TRAP

While discourse analysis in the tradition of Foucault sees the modern epoch in the grip of one pervasive *epistème* (Foucault, 1972: Ch. 2; 1974: Ch. 9) and views law like other disciplines only as a particular expression of the power/knowledge complex (Foucault, 1979: Ch. 4), autopoiesis theory characterizes modern society as fragmented into multiple autonomous *epistèmes* (Luhmann, 1988a: 335ff.; 1990). Autopoiesis thus throws modern legal discourse into an irreconcilable conflict between epistemic autonomy and heteronomy (for two types of cognitive conflict between social systems, see Teubner, 1989, 1990). The dynamics of social differentiation force legal discourse to produce reality constructions of its own, but the very same dynamics make law dependent upon a multiplicity of competing autonomous *epistèmes*.

The epistemic autonomy of law results from the fragmentation of modern society that drives the law into second order autopoiesis (for elaboration, see Deggau, 1988: 128; Heller, 1988: 283; Ladeur, 1988: 242; Teubner, 1988b: 217; 1988c: 60). In the dynamics of social evolution, self-referential relations are multiplying within the legal process, culminating in a hypercyclical linkage of the law's components. The law becomes autonomous from general social communication. It develops into a closed communicative network that produces not only legal acts as its elements and legal rules as its structures, but legal constructions of reality as well. The autonomy of modern law refers primarily to its normative operations that become independent from moral and political normativity (cf. Mengoni, 1988: 15); and secondarily, autonomy refers to the law's cognitive operations that—under the pressure of normative operations—construct idiosyncratic images of reality and move them away from the world constructions of everyday life and from those of scientific discourse (for an elaboration on the "facts of law," see Nerhot, 1988).

In this context, Baudrillard (1976: Ch. II) speaks of "hyperreality" as a movement from reality-dependent theory to theory-dependent reality. In an autopoietic reformulation, one would describe this process as an autonomization of specialized social discourses in which reality constructions of general social communication are increasingly replaced by reality constructions of the specialized discourses. The legal discourse invents and deals with a juridical "hyperreality" that has lost contact with the realities of everyday life and at the same time superimposes new realities to everyday life. It is an "efficacité quasi magique," as Bourdieu calls it, which law possesses in its practices of "world making" (Bourdieu, 1986: 13). Grzegorczyk (1989: 21) speaks of the law as a "hermeneutique officielle du monde" that organizes the social world. "Institutional facts" such as corporate personality, contract, and the will, are only the tip of an iceberg of legal reality con-

structs drifting in an ocean of "brute facts" of diffuse social communication. Legal discourse increasingly modifies the meaning of everyday world constructions and in case of conflict replaces them by legal constructs.

From a constructivist perspective, there is no way to challenge the epistemic authority of law, neither by social realities themselves, nor by common sense, nor by scientifically controlled observation. A social epistemology on a constructivist basis can explain why law appears to be an "essentially self-validating discourse" which one should expect to be "largely impervious to serious challenge from other knowledge fields" (Cotterrell, 1986: 15). It is simply naive to invoke social "reality" itself against legal conceptualism, against the "heaven of legal concepts" (Jhering, 1884: 245) or against the law's "transcendental nonsense" (Cohen, 1935: 809). There is no direct cognitive access to reality. There are only competing discourses with different constructions of reality. And all that Jhering and Cohen have to offer is their own transcendental nonsense in a different heaven of legal concepts. Is there any reason to believe that *Freirecht*, sociological jurisprudence, or legal realism have made the legal discourse more realistic? Not at all. They have not moved legal concepts closer to social reality "out there." They have just replaced one conceptual jurisprudence with another conceptual jurisprudence. "Social interests," the atoms of realistic jurisprudence, are unreal fictions, artificial semantic products, just as much as the "legal subjects," the atoms of classical jurisprudence.

"Law and society" and "law and economics" are not doing any better if they pretend to invoke the authority of controlled scientific observation against the lawyers' "mystifications" of the social world (see for example, Aubert, 1980: 117ff.; 1983: 98ff.; Rottleuthner, 1980: 137ff., for sociology; Adams, 1985, for economics). If epistemological constructivism does anything it is to deconstruct the claims of modern science to having privileged access to reality (Bloor, 1976; Barnes, 1974). Science does not discover any outside facts; it produces facts. "Science is in a literal sense constructive of new facts" (Arbib & Hesse, 1986: 10). Radical constructivism maintains that "science produces a construction of the world which is validated by its distinctions and not by the world as such. Thus, science cannot claim the authority to discover the only and the correct access to the real world and to communicate this to others" (Luhman, 1988c: 2, 9). If we can believe constructivist reconstructions of the scientific process, then the celebrated controlled experiment is not what it pretends to be, a test of an internal theory against external reality, but is a mere internal coherence test comparing two constructs that are produced according to different procedural requirements: the logic of theoretical reasoning and the logic of the laboratory.

Let us take an example. Social science theory on the relation

between organization and collective action is not in any way superior to legal doctrine on the relation between the corporation and legal personality; both are discursive artifacts whose construction is not arbitrary, but rationally guided by specific codes and programs. Similarly, empirical facts about dysfunctions in organizational life, hard facts that result from scientifically controlled inquiry, are in no sense more "true" than legal facts about the violation of corporate duties that are produced under the firm guidance of the rules of law of evidence. In both cases, rational procedures and conventions of factual inquiry lead to empirical statements about reality. They serve as "hard" evidence confirming or refuting "soft" claims based on theoretical speculations or on legal reasoning. And if these empirical facts conflict with each other—which is not so rare—then there is no superiority of scientific constructs over legal constructs, as some sociologists would like to have it (Opp, 1973). Epistemic authority is claimed by both scientific discourse and legal discourse—and rightly so. What a naive realism would call the observation of "facts" is in both cases the production of artifacts whose truth is guaranteed by formalized procedures of factual inquiry, procedures that differ considerably in law and science. These procedures in turn are conventions, not arbitrary ones but structural selections which reflect choices made in the history of scientific and legal discourse.[4]

The epistemic authority of legal discourse is an undeniable fact of modernity, and we have found ways and means to cope with the fact of multiple truths—scientific truth, legal truth, political truth. *Res judicata* is the classical example of an institutionalized conflict between legal facts and scientific facts. Even if it can be proven with scientific evidence that a factual statement in a legal procedure is blatantly wrong, that factual statement of the court—and even worse, its legal, economic, and social consequences—will not be reversed (apart from very few, narrowly defined exceptions) unless the procedural requirements are fulfilled and the appeal procedures exhausted. Obviously, scientific facts collide with legal facts, but we are used to living with this collision, rationalizing it by invoking higher values, like legal certainty, or appealing to the relativism of our cultural provinces.

However, things are not quite so easy. Windscheid's notorious "lawyer as such," who is entitled by the law of social differentiation not to be "concerned with ethical, political, or economic considerations" (1904: 101), is forced by the same law to give up the entitlement and to incorporate those nonlegal considerations into

[4] Thus, the resulting relativism of different social discourses is not "anything goes" relativism. It is a relativism that invites to "raise the status of the other 'mythologies' by a more careful investigation of their methodological and cognitive credentials" and to examine "the various kinds of criteria of acceptability that apply to different kinds of constructed models and myths" (Arbib and Hesse, 1986: 10).

his/her autonomous reasoning. This is what I would call the "epistemic trap" of modern law. Law is forced to produce an autonomous legal reality and cannot at the same time immunize itself against conflicting realities produced by other discourses in society.

The underlying reason for this confusion is "interference," that is, the mutual diffusion of law and other social discourses (cf. Mengoni, 1988: 23). This is one of the most challenging problems for autopoietics if this theory intends to avoid the fallacies of solipsism and monadism (see above V). Although the legal discourse is closed in its self-reproduction and produces its own constructions of reality, it remains always social communication and uses the general social constructions of reality and influences general social communication by its specific world constructions. Any legal act is at the same time—*uno actu*—an event of general social communication. One and the same communicative event, then, is linked with two social discourses, the specialized institutionalized discourse of law and the diffuse and general social communication. Interference of law and other social discourses does not mean that they merge into a multidimensional super-discourse, nor does it imply that information is "exchanged" among them. Rather, information is constituted anew in each discourse and interference adds nothing but the simultaneity of two communicative events (for details, see Teubner, 1989, 1990). Thus juridical constructs are exposed to the constructs of other discourses in society, particularly to the constructs of science. They are exposed to a test of "social coherence" that replaces the old fiction of a test of correspondence with outside reality.

In the world of nonlegal communication, legal constructs inevitably lose in this epistemic competition. Here, science has the advantage of having specialized in procedures for purely cognitive operations, while law uses cognitive operations only secondarily and has, thus, shaped the procedures of cognition in a different institutional context. But what about the world of legal communication in courtrooms, law offices, and legislative chambers? Here, the legal discourse claims to be entitled to "enslave" cognitive operations according to normative context and institutional purpose. The "empirical" models of legal communication are in the firm grip of "strategic" and "operative" models (for an elaboration of the mutual constraints exerted among different internal models of the outside world, see Teubner, 1982: 96 ff.). However, it is the institutional context of the legal process itself that produces an internal contradiction. While it requires idiosyncratic reality constructions through legal communication, it forces legal communication to reconstruct the scientific constructs of reality and to expose—even within the law's empire—juridical constructs to the "higher" authority of science in cognitive questions. The conflictual character of legal procedures—litigation as well as legislation and scholarly disputes—forces legal discourse to examine

any piece of new knowledge produced outside the legal world only if it is "relevant" to the law. Any practicing lawyer who did not challenge legal evidence in the light of a new scientific research method would act against his/her interests and violate his/her professional duties. In the legislative process, political opponents on, say, health legislation will challenge legal measures once there is credible scientific evidence that the presupposed nexus between a disease and certain causal factors does not exist. And scholars in law and economics reap their highest reputational profits when they inform courts about their naive prescientific models of human behavior and propose scientifically proven alternatives.

The epistemic trap of modern law, therefore, produces a challenge of the first order to legal doctrine, legal theory, and legal sociology. Relentlessly, legal doctrine—through the mouths of judges and law professors—comes up with positive proposals on how to escape from the trap. Reflexively, legal theory helps to broaden the escape routes, generalizing particular solutions and importing supportive knowledge from other disciplines. And positive legal sociology zealously studies the correlations between those legal semantics and the broader sociocultural context, while it remains the privilege of critical sociolegal studies to "trash" those attempts, to demonstrate to lawyers in a merciless deconstructive analysis that they are still in the old trap.

VIII. ESCAPE ROUTES

To renounce epistemic authority, at least partially, would be the easiest way for legal discourse to escape from these troubles. Indeed, Luhmann who probably underestimates the possibility of conflict in authority among social *epistèmes*, seems to favor this escape route when he discharges the law from reexamining everyday interpretations and scientific constructs, like "woman," "cylinder capacity," "inhabitant," "thallium." "Should questions such as whether women, etc., really exist arise, they can be turned aside or referred to philosophy" (Luhmann, 1988a: 340). Unfortunately, such a clean separation of social spaces does not exist. Moreover, with such a division of labor among social discourses one would not exploit the richness of the autopoiesis concept, and would have to face empirical counter-evidence. In the day-to-day practice of legal decisionmaking, law is constantly forced to decide autonomously on cognitive questions that are supposedly within the competence of scientific inquiry or of common sense. If the normative context of law requires cognitive statements on specific matters, then it is true that the law may start its operations with common sense understanding and with reference to science. But whenever in the legal process these cognitive statements become controversial—and this is usually the case for the politically and legally "hot" issues—then law can no longer turn them aside or refer

them to philosophy. Then, *hic et nunc*, the legal process must provide for procedures to settle these divergences, and must make a decision that is based on a legal determination of those questions, even if they are controversial or actually non-determinable in the sciences. More particularly, political and juridical conflicts in the environmental law area requiring much extralegal scientific and technical expertise show the great degree to which legal decisions have to be based on a specifically juridical assessment of scientific controversies or have to be made without any guidance from scientific results (cf. for the German situation, Kitschelt, 1984; Wolf, 1986; Winter, 1987).

The other main escape route from the law's epistemic trap is the integration of law and social sciences. Instead of clearly separating the realms of juridical cognition from those of scientific cognition, the legal discourse is supposed to incorporate social knowledge into its world constructions and permanently revise legal models of social reality according to the accumulation of knowledge in the social sciences. From the times of Jhering, Geny, and Pound to the most recent variations of the "law and . . ." movements, this has been the most challenging intellectual adventure of modern legal thought.

What can legal epistemology learn from almost a hundred years of experimentation with "law and social sciences"? Although social science thinking has been remarkably successful in influencing legal practice (see for example, Cotterrell, 1984: 253 ff.), the great expectations of legal enlightenment raised in academia have been dashed in the courtrooms. Psychiatry, sociology, policy analysis, and economic analysis have successfully entered the legal sphere, but the result is not a greater degree of isomorphy of law and social reality that would result in more rational legal policies. Rather, the social science enlightenment of law has resulted in unanticipated consequences—the production of hybrid artifacts with ambiguous epistemic status and unknown social consequences.

"Interest analysis," for example, is a surprising success of the efforts of "sociological jurisprudence" to replace formalist, conceptually derivative legal reasoning (for a recent analysis of the German and French practice in administrative law and its sophisticated interpretation, see Ladeur, 1984: 11ff., 57ff.). Today, interest analysis practically dominates legal decisionmaking in the courts: the courts analyze legal conflicts in terms of underlying conflicting social interests and "balance" them against each other according to standards that they infer from legislative goals expressed in a comparable context. But what is sociological about this type of sociological jurisprudence? No sociologist whatsoever would dare to follow lawyers in their attempts to conceptualize, operationalize, and empirically identify those phenomena called "social interests" that figure prominently in legal decisions (e.g., the legal concerns

of creditors, debtors, neighbors, corporations, regions, states), not to speak of the juridical methods of "balancing" them. There are just too many explicit and implicit normative assumptions based on a complex network of legal-doctrinal considerations that enter into legal interest analysis. Simply put, juridical interest analysis cannot be legitimated from the standpoint of sociological theories or methods. In practice, interest analysis is a new conceptual jurisprudence that originally was subsidized by social science constructs but has been gaining its autonomy for a long time. It may very well be that "interest analysis" contains elements of a new legal rationality (in terms of flexibility, openness, and learning capacity, see Ladeur, 1984: 216ff.), but they are surely different from the original goals of sociological jurisprudence, and they evolve by institutional experimentation, not by the incorporation of sociological knowledge.

"Policy analysis" tells a similar story. Basically, it is a method of decisionmaking inspired by the instrumental use of social science knowledge (for a recent statement, see Albert, 1986: 34ff.). Define the goals consented upon in the political process, determine the factual conditions of the regulatory situation, choose among the regulatory instruments according to nomological knowledge about means-ends relations, take into account side effects, and, if you can, learn from practice about unanticipated consequences and perverse effects! But what has legal practice made of this "rational jurisprudence"? The lawyers have simply shifted their scholastic methods of doctrinal reasoning from the level of rules to the level of "policies," purposes, goals, and principles supplanting social science analysis by the obscure hermeneutics of "teleological" interpretation. Legal consequentialism has in practice become a caricature of a scientifically controlled, causal analysis supported by empirical evidence (in Germany cf. the lively debate on *Folgenkontrolle*, Luhmann, 1974; Lübbe-Wolff, 1981). What counts as a relevant consequence of a legal rule or decision derived from legal doctrine, is in a circular fashion defined by legal doctrine itself. Thus doctrine that originally was supposed to be controlled by its social consequences, now controls its social consequences. Moreover, the rational calculation of probable consequences of decisionmaking in practice turns out to be nothing but the commonsense projection of judges. And consequentialism is taken seriously only on the level of rules and not on the level of individual decisions that are in practice never reversed if the calculation of consequences turns out to be wrong. Again, we are faced not with social science in law but with a new type of legal doctrine dealing with "policies" as the new legal artifacts that replace old-fashioned rights and duties.

One could continue with the "poverty of psychiatry." Is it conceivable, from the point of view of a positivist science, that a psychiatric expert give an opinion of how to distinguish, abstractly

and/or concretely, between guilt and causality (see for example, Prins, 1980: Ch. 2)? Although from a scientific standpoint any notion of individual guilt is nothing but a "trans-scientific issue"—questions that are unanswerable by science (see Weinberg, 1972; Majone, 1979, 1989: 3ff.)—forensic psychiatrists routinely give such opinions because they allow the law to "enslave" the basic concepts of their discipline.

"Economic analysis of law" is a more recent battlefield for epistemic competition. It has yet to be seen whether economic imperialism will prevail or, vice versa, whether juridical dogma will colonize economic thought. Especially in the hands of economizing lawyers, analytical concepts of economics undergo a subtle (and often not so subtle) change into normative constructs that serve as cornerstones for legal-doctrinal edifices. If, for example, one examines the new legal economics literature on the firm as a nexus of contracts (e.g., Alchian & Demsetz, 1972; Fama & Jensen, 1983; Clark, 1985; Schanze, 1986, 1987; Roos, 1988), what is left from the methodological principles of economics, formulated by Williamson (1987): theoretical openness, readiness to learn from other fields of experience, refutability of implications and exposure to empirical falsification? Judge Easterbrook's piece "Corporations as Contracts" (1988) in any case is a prototype of ideological orthodoxy, doctrinal rigidity, and conceptual immunization against contradicting experience.

These polemical remarks should not be misunderstood. They are not meant to defend the purity of scholarly conceptualization against strategic misuse by lawyers with ulterior motives. On the contrary, they are meant to demonstrate that social science constructs are not only transformed or distorted, but constituted anew, if they are incorporated into legal discourse.[5] They are not imported into the law bearing the label "made in science," but are reconstructed within the closed operational network of legal communications that gives them a meaning quite different from that of the social sciences. It is not a question of the same thing being looked at from different angles, appropriately to different disciplinary interests, methods, etc. (Aubert, 1980: 117ff., 1983: 98ff.; Rottleuthner, 1980: 137ff.). This would be to presuppose an underlying reality that is capable of unifying the diverse aspects stressed in different disciplines and of deciding between conflicting descriptions. Rather, the differences are to be found in the realities themselves that are produced by different discourses and that can be neither unified nor reconciled.

Thus the incorporation of social science knowledge is not really an escape from what we called the epistemic trap of modern

[5] "Much depends on noticing that law's autonomy lies not in its freedom from being influenced by external causes and influences but in the way in which it incorporates and responds to them" (Nelken, 1987).

law. It does not solve the conflict between juridical and scientific realities, but adds a new reality that is neither a purely juridical construction nor a purely scientific construction. The constructs of sociological jurisprudence, legal economics, "legal politology," and the like, are hybrid creatures, produced in the legal process with borrowed authority from the social sciences. However, epistemic authority and responsibility are no longer with the social sciences but with the law. And their "truth," their social adequacy, their viability will be decided no longer in the process of scientific inquiry but in the process of legal communication. For instance, certain psychoanalytic constructs, as well as fully deterministic models in psychology, will never be viable constructs in a juridical world that is based upon assumptions of individual guilt and responsibility. Or to take another field, the relative success of legal economics compared to sociological jurisprudence has probably nothing to do with the intrinsic "scientific" values of the models involved, but with their structural affinity to traditional legal doctrine. If courts considering questions of, say, negligence, public policy, fairness, or properties of the "reasonable man" resort to "social norms," a sociological conceptualization would require time, energy, and money for extended empirical research, while an economic conceptualization in terms of transaction costs requires an armchair.

It would be wrong, however, to view the incorporation of social knowledge as "irrational." Given the inherent tension between scientific and juridical realities and the authority of modern sciences, it seems quite rational for the law to attempt to make the legal reality constructs at least compatible with recent developments in the sciences. In this respect, law resembles religion (for a constructivist account of the conflict between science and religion, see Arbib & Hesse, 1986: 16ff., 197ff.). For legal dogma and theological dogma alike, it is advisable to keep the world of faith compatible with the world of scientific truth. However, there is more to the integration of law and social sciences than merely making contradictory world constructions compatible. The "law and . . ." movement, it should be admitted, has benign effects for the decisionmaking quality of modern law in terms of justice and utility. The most recent results of the social sciences and the permanent challenge which they represent can serve as a "variety pool" for legal innovation. It is a tremendously rich source for an ongoing reconstruction of the legal world, comparable only to the richness in what people find litigable and which creates legal conflicts. However, what happens to those constructs once they enter the legal scene is no longer in the hands of the social sciences. Selection and retention of these variations is the job of legal evolution.

There are indications today that this legal reconstruction of scientific knowledge, if carried too far, becomes risky in itself. In the environmental law area, for example, Gerd Winter (1987) felt

a growth in the "judges' anxiety" about technical risk assessment and other legal incorporation of scientific findings together with a tendency to reduce the scope of legally relevant issues. This looks like a return to the first mentioned escape route in the permanent oscillation between epistemic autonomy and heteronomy. However, there are other attempts to cope with this situation, experimentation with a third solution, a kind of middle path between the two main escape routes. These more promising attempts can be summarized in the following formula. Law cannot take over full epistemic authority and responsibility for the reality constructions involved, but at the same time it does not totally delegate epistemic authority to other social discourses. Rather, as a precondition for the incorporation of social knowledge, the legal system defines certain fundamental requirements relating to procedure and methods of cognition.

A case in point is the decision of the German Supreme Court on codetermination in economic organizations (*Bundesverfassungsgericht, BVerfGE* 50, 290). For years, constitutional lawyers had judged the constitutionality of labor participation on the basis of its economic effects—in terms of efficiency of the firm, performance of the West German economy, and its position in international competition. In this way, the collective actors involved, that is, firms, employer associations, labor unions, government, and parliament, had prepared short legal reality constructions in their briefs with detailed scenarios about the socioeconomic consequences of codetermination, either with catastrophic or beneficial consequences, whichever was appropriate to their position (see Badura *et al.*, 1977: 137ff., 246ff.; Kübler *et al.*, 1978: 35ff., 99ff., 145ff., 197ff.). In addition, economic and sociological experts had been mobilized on both sides. The court refused to take a substantive position on these scenarios about possible consequences and resorted to a "procedural" solution. Instead of confirming or rejecting reality constructions, the court allocated risks of information and risks of prediction among the collective actors involved, including the court itself, and created a new legal duty for the legislature: to reverse its decisions if the predictions on which they were based should turn out to be wrong (for an in-depth analysis of such a "proceduralization" of institutional cognition, see Wiethölter, 1985, 1986, 1989; Frey, 1989: 103ff.; cf. also Majone, 1979, 1989). In several more recent decisions this tendency has been strengthened: to abstain from a material constructions of reality and to proceduralize the legal solution; to delegate epistemic authority to different collective actors, that is, regulatory agencies, private firms, labor unions, research institutions, interest associations, governmental organizations, parliament, courts; to allocate risks of information and prediction; to define procedures and methods; to decide which collective actor must bear the "burden of proof" for reality constructions; and to define responsibilities for

failures in information and prediction (see for environmental law, *BVerfGE* 49, 89; for corporation law, *BVerfGE* 72, 155; for the law of property, *BVerfGE* 74, 264).

To a certain degree, a constructivist perspective would favor such attempts to "proceduralize" the conflict between epistemic autonomy and heteronomy in modern law. Indeed, when correspondence theories of truth have to be replaced by consensus theories and coherence theories, when the authority of science is based only on its internal procedures of validation, when institutional contexts like the law are condemned to epistemic autonomy and cannot resort to external authorities, then practical and theoretical attention must focus on the procedures that dictate the premises, content, and consequences of institutional constructions of social reality.

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