
“And God Laughed...”: Indeterminacy, Self-Reference, and Paradox in Law*

GUNTHER TEUBNER

I

The Talmud tells us how once during a heated halachic discussion, when no agreement could be reached, Rabbi Eliezer, whose detailed, elegantly justified legal opinion was not shared by the majority, said that if he were right, a carob tree outside would move to prove it. When it did move, the other rabbis remained unimpressed. Eliezer claimed that if he were right, a nearby stream would flow backward—and it did; he claimed that the schoolhouse walls would bend—and they did. But the rabbis were not impressed by these wonders either. Finally, he said heaven itself would prove him right. Thereupon a Heavenly Voice confirmed Eliezer’s position. Yet the rabbis disagreed even with this voice, saying: “We pay no attention to a Heavenly Voice, because Thou hast long since written in the Torah at Mount Sinai, after the majority must one incline.” And God laughed, saying “My sons have defeated Me, My sons have defeated Me” (after the Babylonian Talmud, Baba Mezia 59b).

An old story is perhaps the best way of getting across the atmosphere of a new theory—autopoiesis in law. “And God Laughed” is the name of this story, which Joseph Weiler told me when we discussed whether the concepts of self-reference and autopoiesis could be made fruitful for a new understanding of law.

This story reveals indeterminacy in its relation to self-reference and paradox, in law. As with all good stories, several interpretations are

* This article has appeared in Christian Joerges and David Trubek, eds., *Critical Legal Thought: An American-German Debate* (Baden-Baden: Nomos, 1989) 339.

possible. Starting with somewhat superficial interpretations, indeterminacy manifests itself as nonsusceptibility to outside control. This lack of an Archimedean point from which to consider law precludes the possibilities of external influence or prediction. The law — as Rabbi Eliezer had painfully to find out — is determined not by external authorities, nor the authority of texts, nor worldly power, nor the law of nature, nor divine revelation; law determines itself self-referentially, relying on the contingency of its own positivity.

Law owes its validity to this very self-reference: the application of legal operations to the results of legal operations. Thus, validity of law cannot be imported from without but only produced from within the law. Along with Luhmann, we may say (1986b: 20f.): “there is no law outside the law, and therefore, in relation to the system’s social environment, neither input nor output of law.” The rabbis’ discourse decides about everything, even about the “fiat” of the legislative — or divine — will. Their legal discussion decides ultimately what is acceptable in legal practice. The first interpretation, then, is: positive law is indeterminate because it is self-produced law — not only in the sense of law made by human hands, but in the sense of law made by law.

A second interpretation would stress the connection between the law’s self-reference and its lack of predictability, another indication of the lack of external control. The ideal of certainty, and hence predictability, in law, comes to grief upon the law’s self-reference, regardless of whether predictability was to be achieved via broad-based sociological research or narrower inquiries in the spirit of Legal Realism. Neither an accumulation of nonlegal social data nor the judge’s breakfast can serve as determinants of legal development. For Eliezer, the ability to foresee the responses of the natural and the divine worlds failed to make the legal world predictable: the rabbis’ debate took its own course.

In this connection, von Foerster would perhaps interpret Eliezer’s legal dispute in the following way (cf. von Foerster 1984: 8ff.; 1985: 42ff.): God laughed because the rabbis had anticipated the powerlessness of the Laplacian world spirit. For that spirit has power only over what von Foerster calls “trivial” machines, the operations of which link particular inputs with particular outputs in a fixed, regular way. “Trivial” machines are synthetically determined, analytically determinable, independent of the past, and predictable. Law, by contrast, if it is indeed the autonomous law of the rabbis, would have to be understood as a self-reproducing system which, since the operations

of law are dependent on its internal states, would have to be defined as a "nontrivial" machine. Law is certainly synthetically determined, but not analytically determinable; it is dependent on the past, but not predictable. The indeterminacy of law would then be directly connected with its autonomy. In fact, Hejl (1984: 64) finds the decisive characteristic of a system's autonomy in its indeterminacy, when he defines autonomy as input-independence of living systems, i.e., as indeterminacy of their operations in relation to an input that is identical for the observer.

II

As was said, these would be two rather elementary interpretations of the law's self-reference. For they say something about the law's non-determinability from outside, about its inscrutability. A third interpretation reveals a deeper-lying problem of law. It traces a circular structure in the story. Rabbi Eliezer successfully mobilizes the whole of a hierarchy of norms; he successively ascends the stages of learned debate, the Talmudic text, Rabbinical law, worldly power, natural law and divine revelation, and when he gets to the top he plummets right back down again to where he started, with his colleagues' debate, completing a "strange loop." "Tangled hierarchies" is the term used by Hofstadter (1979: 64ff.) for the phenomenon where the highest level of a hierarchy "loops into" the lowest one: what ultimately decides the validity of divine law is the triviality of procedural norms ("after the majority must one incline").

Hofstadter himself (1979: 692f.; 1985: 70ff.) makes it clear that even the hierarchy of legal sources is not spared from the circular "looping together" of hierarchies: "The irony is that once you hit your head against the ceiling like this where you are prevented from jumping out of the system to a yet higher authority, the only recourse is to forces which seem less well defined by rules, but which are the only source of higher-level rules anyway: the lower-level rules..." (1979: 692f.).

The story of the dissenting Rabbi Eliezer therefore links to the ineluctable self-reference of law. This appears to us in the story in an already highly elaborated form: as a clearly delineated hierarchy of the legal sources. There is only one small flaw: the highest source is fed from the lowest one (Escher 1961). This small flaw "makes any legal system which ranks its rules hierarchically into a *completely* reflexive hierarchy" (Suber 1990: 21.30). Though, by setting the highest

source of law high enough, the legal world can live very well with this circularity, even if God does laugh a little.

Things become really serious, though, if we—in a fourth interpretation—come up against the original self-reference which underlies the “tangled hierarchy” of the Talmudic law. In an elementary form, and one that is threatening to law, immediate self-reference appears when law assesses real world situations, using the simple distinction between right and wrong. When this distinction is applied not only *ad hoc*, but with universalist claims to the whole world, then at some time or another the right/wrong distinction falls into temptation—in fact, its very universality claim places it under a compulsion—to apply itself to itself. And “the paradoxes of self-reference” (Bateson 1953: 1972; Wormell 1958; Quine 1976; von Foerster 1984; Krippendorff 1984; Hutter 1989: 30ff.; Suber 1990: 21.30) emerge. The hierarchy of legal sources is, as the dissenting Rabbi Eliezer’s desperate attempts show, only an inadequate attempt to avoid this originally given self-reference by piling up ever-new metalevels; but the top level always collapses into identity with the lowest one.

Many, like Spencer-Brown (1972: 135), wish to ban such “self-indication” since its appearance seems to eliminate the original distinction; others, like Francesco Varela (1975: 5) see “self-indication” as the big opportunity for a new logical calculus. But these are already evaluations of an operation that is potentially always available: application of a distinction to itself. This is threatening because such self-application eventually blocks decision. Statements that are false if true and true if false are the result of some—not all—self-applications of distinctions. If the positive value of a distinction is applied to itself, the result is a (harmless) tautology: “It is right to apply the distinction between right and wrong.” Things get tough, however, with the negative value. “It is wrong to apply the distinction between right and wrong” lands us in a nonresolvable paradox: right-wrong-right-wrong...

Once one has become sensitized, one discovers self-reference, paradoxes, and antinomies in the law on all sides (Fletcher 1985: 1268ff.; Suber 1990). As Hofstadter (1985: 71) says: “In fact, reflexivity dilemmas... crop up with astonishing regularity in the down-to-earth discipline of law.” Familiar points are the major paradoxes of the law’s being put out of force by the right of resistance and by *raison d’état* (Luhmann 1984c: 36); the paradoxical creation of law by the violence of revolution (Benjamin 1977: 179ff.): “in ogni violenza

vi é un carattere di creazione giuridica" (Resta 1984: 10; 1985: 59ff.); the already mentioned paradox of the tangled hierarchy of norms; the Münchhausen-trilemma of rule-justification: infinite regress, circularity, or arbitrary cessation (Albert 1985).

These are known fundamental paradoxes in law. However, one may question their practical consequences. Do they have existential force (Solum 1987: 479): Do they hold "terrors in our daily lives" (Kripke 1982: 87)? In fact, more concrete phenomena of legal self-reference leading to paradox can be found: "Who watches the watchmen" as a problem of constitutional law (Cappelletti 1985: 550), the change of constitutional norms via constitutional norms and the paradox of self-amendment (Ross 1969: 1; Suber 1990); "tu quoque" or "equity must come with clean hands" (see Teubner 1975); *renvoi* in conflict of laws (Kegel 1987: 240ff.); "ignorance is no excuse"; the prohibition on bigamy; alterations of legal rulings that have future effects; "prospective overruling" (Fletcher 1985: 1268ff.); or the fiction theory of the legal person, according to which the State as legal person has like Münchhausen to pull itself out of the swamp by its own top-knot by fictionally fabricating itself (Wolff 1933: 63f.; Flume 1983: 13; Teubner 1988a: 417ff.; 1988b: 43). These are some paradoxical legal phenomena that trouble not only legal theorists but practical lawyers as well.

III

Self-reference — paradox — indeterminacy everywhere! The real point, however, arises after this realization, at the next stage, when one asks, how is one to handle the paradox induced by self-reference? If one is not, like Lüderssen (1986: 343) to make things easy for oneself by dismissing "fiddling with self-referentiality, which is after all unvarnishedly claimed to be circularity" as "an intellectual recreation to do with paradoxes," "that intellectual history has continually had to deal with, and rightly rejected as fruitless" (349), then there remain three intensively discussed possibilities of dealing with the "paradoxes of self-reference" (Wormell 1958; Quine 1976) that arise in law.

Radical criticism of law is one approach to self-reference, today cultivated by protagonists of the critical legal studies movement, mainly from the U.S. and U.K. (cf. esp. Kairys 1982b; *Stanford Law Review* 1984; Boyle 1985; Kelman 1987). These theorists employ subtle analyses of legal doctrine in a peculiar technique of deconstruction. Legal dogma's claims to consistency and its practical and moral premises

are reduced to absurdity by pointing out contradictions, antinomies, and paradoxes within the dogma's own reasoning (for a concise overview, see Gordon 1984, 101ff.). This method commenced by discovering, in the doctrine of contract law, contradictions between formality and materiality, and between individualism and altruism (Duncan Kennedy 1976); with pointing out the disintegrating effects and inherent instabilities of "policy-oriented" law in the welfare state (Unger 1976: 192ff.); with deriving the paradox that, for every rule one can find a counter-rule (Duncan Kennedy 1976) and for every pronouncement of legal dogma, with the assistance of that doctrine the exact contrary could also be deduced (Unger 1983). Trubek (1986: 68) condensed the critique of law underlying these moves to the formula: "indeterminacy, antiformality, contradiction and marginality." The method quickly spawned adherents (e.g., Singer 1984: 1; Boyle 1985: 685; Peller 1985: 1151). By now there is scarcely a field of law that has not been deconstructed by the professorial critical cadre (for private law, see Feinman 1984: 678; Dalton 1985: 997; for public law, see Kairys 1982a: 140; Tushnet 1983: 781; Frug 1984: 1276).

The critics vary in their analysis of legal indeterminacy. They ascribe indeterminacy of law to quite different complexes of causes: individual case decisions, legal institutions, the logic of legal argumentation, legal doctrine, social interests, or policies (for a critical view of this, see David Kennedy 1985: 1418ff.). However, the critics themselves assume stances of latent determinacy, depending upon the complex to which they attribute the larger phenomenon of indeterminacy, e.g., context, institutional setting, political ideologies, "social hegemony" (see Duncan Kennedy 1982: 49f.; Singer 1984: 20ff.).

Given these "secret" points of determinacy, it must be asked, how radical is this critique of law actually? This is precisely the opposite of the usual objection against critical legal studies which assert that the indeterminacy-thesis is an exaggeration of the underdeterminate character of law (e.g., Solum 1987, 494). Indeed, critical legal studies is not radical enough. It seems to me that the rediscovery of indeterminacy, the demystification of legal dogma through ideological criticism, all of the "debunking," "trashing," and "demystifying," reach only superstructural phenomena of legal self-description (doctrine), but fail to push through to the basis of the fundamental paradox of law. Is not Sophocles's critique of law much more radical when he has Antigone express her opposition to Kreon's law prohibiting her from burying her brother?

KREON. And yet you dared to overstep these laws?
ANTIGONE. Yes,... for not Zeus it was who uttered them.
Nor yet did She who dwells with gods beneath,
Justice, ordain such laws as these for men.
Nor did I count your edict strong enough
For you to override, and you a mortal,
Unwritten law, unshakeable, of Heaven.
For not today, nor yesterday, but all time
Does that live, and none knows from when it came.

(translated from the Greek by Iain Fraser)

We should not downplay Antigone's protest as recognition of a conflict between human and divine law. Rather, she asserts an insoluble paradox, familiar to us from the earlier discussion of the self-application of the legal distinction. Antigone applies the legal code to the legal code itself by claiming that Kreon's laying down of right and wrong is as such wrong.

This claim supersedes that of the contemporary radical critique of law, which locates modern law's paradoxical indeterminacy in politically manipulable legal doctrine and externalizes the paradox to "secret" points of indeterminacy. For Antigone, paradox inheres in the phenomenon of law itself; it is not merely a symptom of a particular historical configuration of dogma. The radicality of the Antigonean critique of law reaches a deeper level. It is not individual legal norms, principles, or doctrines that lead to antimonies and paradoxes; the law itself is based on a fundamental paradox, which even alternative visions of a "communal law" (Unger 1983) cannot escape.

Thus, the disclosure of contradictions and paradoxes cannot, contrary to all the hopes of the Enlightenment, lead to a "deconstruction" of law, but at most to a "reconstruction" of its foundations that remain latent. This achieves not the elimination of contradiction and paradox but instead a "reconstruction" of the connection among self-reference, paradox, indeterminacy, and evolution of the law. It does not suffice for the critics to argue that the revelation of contradictions and paradoxes to jurists irreversibly destroys the latent paradox, thus achieving deconstruction by enlightenment. This argument underestimates the difference between the reflective awareness of jurists as individuals and that of the law as a social process. The enlightenment approach hereby neglects the operative closure of legal-practical discourse to the achievements of theoretical — even legal-theoretical —

discourse. Wiethölter (1986b: 53) regards it as “the dominating phenomenon of the last 10 to 15 years that the work of lawyers as settled practice has remained almost untouched by all the more fundamental challenges facing our legal system, jurisprudence and legal doctrine...”; and Heller (1985: 185) supplies the post-structuralist explanation: “Law is essentially a cognitive and professional, rather than a normative, discipline, referring to theory only in the liminal cases where the content of the settled practice comes into crisis.” This makes him rightly skeptical as to the enlightening effects of a legal critical “delegitimative analysis.”

Jurists more acrobatically minded than the critical legal scholars practice a more civilized way of dealing with the self-referential nature of law (e.g., Hart 1964; Ophuels 1968; Ross 1969; Fletcher 1985). These jurists define the problem of the law’s self-reference as a problem of “paradoxes in legal thought” (Fletcher 1985: 1263ff.). This definitional restriction of the problem allows them to regard the connection between self-reference and paradox as a “fallacy” (1263) of thought; thus, they can now set about restoring the consistency of legal reasoning with elan, intuition, and mental gymnastics. The entire exercise reduces to a problem of insufficiently refined mental techniques, which, with improvement will be able effectively to remove paradoxes: “...the primary technique for resolving them is to elaborate distinctions” (1279). This technique finally refers to the famous theory of types, but there are other “solutions” that effectively avoid the paradoxes of self-reference in law (see Hart 1964; Ross 1969; for a critical discussion, see Suber 1990). In the face of unresolved paradoxes and antinomies, one can at least preserve one’s attitude: “...it poses a challenge to legal theory that we cannot ignore. If we are committed to the consistency of our legal principles, we shall someday have to devise a construct or a theory that will resolve this antinomy” (1284).

Let us pay tribute to optimism, and respect “consistency as an overriding legal value” (1265)! But who is to protect the legal mental gymnasts from being caught up, while leaping from level to metalevel and metametalevel, in some “tangled hierarchy,” or from landing, following some bold mental leap out of the system, back where they were again, in some sort of “strange loop”? Perhaps Fletcher makes it too easy for himself, despite all his mental gymnastic effort because he takes paradoxes only as intellectual errors.

At any rate, the dissenting Rabbi Eliezer in our story cannot be helped by a new distinction to escape an alleged fallacy in his think-

ing about law. For his penalty for losing the legal argument was exile—a fate more real than an error in thought. His problem was not merely paradoxes in legal thought, but paradoxes in law itself. The frightening experience is that the reality of law itself, and not, say, merely thinking about law, is paradoxically constituted. Eliezer was forced to recognize the Antigonean claim. And precisely this recognition leads to the third way of dealing with the legal paradox induced by self-reference: rather than isolate the paradox in thought about law, shift it into the social reality of law. This breaks a taboo in law: the taboo on circularity. Legal dogma, legal theory, and legal sociology are agreed on placing circularity under the ban of logical inadmissibility. Circular arguments are banned in all three disciplines, as *petitio principii*. This taboo also characterizes the efforts of our legal mental gymnasts, whose acrobatics are premised upon the ban on circularity. The critical demystifiers, as well, silently accept the taboo of circularity, and their critique of indeterminacy would fade away into vacuity if the ban were raised.

Autopoiesis theory takes the Antigonean paradox as its starting point, but it does not violate the taboo only to declare circular conclusions logically unobjectionable. Then the outcome would in fact be empty tautologies or impenetrable blocks on thought. Instead, the theory dodges the taboo by declaring circularity to be a problem of legal practice, rather than a problem of legal thought: the social reality of law consists in a number of circular relationships. The components of the legal system—actions, norms, processes, identity, legal reality—are cyclically linked with each other in multifarious ways (Teubner 1988b). Self-reference, paradox, and indeterminacy are real problems of social systems, not errors in the mental reconstruction of this social reality.

This new way of handling self-reference is more than ambitious. It claims to treat circularity, hitherto regarded in principle as a prohibited mode of thought, as a fertile and heuristically valuable model of social reality, and on this basis to revolutionize not only legal theory but thought about society (Luhmann 1983: 1984b: 1985a: 1986a). As Zolo (1990: 4) has shown, the basis here is a generalization of the following "circular" phenomena:

1. linguistic self-reference of cognitive processes (W. V. O. Quine, O. Neurath),
2. theories of order through fluctuation and dissipative structures in the physics of irreversible processes (I. Prigogine),

3. logical circularity in mathematical axiomatized structures (K. Gödel), and more generally, paradoxes and contradictions in recurrence and in logical and linguistic self-inclusion (B. Russell, K. Grelling, A. Tarski),

4. reflexivity of the mechanisms of homeostatic or self-catalysing self-regulation in molecular biology or neurophysiology (L. von Bertalanffy, M. Eigen, H. von Foerster),

5. recursive phenomena (feedback, re-entry) in cybernetics and the cybernetics of cybernetics (second-order cybernetics) (W. B. Ashby, H. von Foerster),

6. processes of spontaneous morphogenesis and the self-organization of social groups (F. A. von Hayek),

7. the traditional concept of mental awareness in man and in the anthropoid apes (H. Maturana, G. Pask, N. Luhmann).

This way of handling self-reference derives its dynamics and potential fruitfulness from a jump to a bold epistemological position: "that reality has a circular structure, independently of its cognition" (Luhmann 1984b, 648; 1986c).

IV

This insistence on "real paradoxes," to coin an expression loosely based on Karl Marx's real contradictions, fertilizes theories of self-reference and autopoiesis, making them rich in prospects. For the research strategy is to discover blanks on the map of social phenomena by identifying circular relationships in law and society and tracing their internal dynamics and external interactions. Of course, there are already efforts in this direction. The most advanced remains legal hermeneutics, which studies the perplexities of the hermeneutic circle in "preliminary conceptions and choice of methods" (Esser 1970). In legal theory, it was Hart (1964) and Ross (1969) who analyzed self-referential norm structures. Legal methodology and argumentation theory, by contrast, say little about the circular structure in the relationship between legal norm and purpose in teleological interpretation (e.g., Alexy 1978: 289ff.). And legal sociology has so far permitted itself the luxury of circularity only in simple feedback relationships between law and society (e.g., Weiss 1971; Eckhoff 1978: 41ff.).

For an autopoietic view, these phenomena appear only as a few special cases in the generally circular reality of law. For the legal system, like other autopoietic systems, is seen as nothing other than an "endless dance of internal correlations in a closed network of inter-

acting elements whose structure is continually modulated by numerous interwoven domains and meta-domains of structural coupling..." (Maturana 1982: 28).

This, then, would be the last interpretation of the story "And God laughed...": the reality of law itself is circularly structured. Not only is the rabbis' reasoning about law self-referentially constituted: so is their very subject matter. The most important consequence of this shift from thought to practice is that one no longer need falter at the hurdle of paradox induced by self-reference. After all, the rabbis do continually produce law, despite any paradoxes. They follow the second alternative in Krippendorff's (1984: 51f.) account of a paradoxical situation:

Unless one is able to escape a paradoxical situation which is what Whitehead and Russell achieved with the theory of logical types, paradoxes paralyze an observer and may lead either to a collapse of the construction of his or her world, or to a growth in complexity in his or her representation of this world. It is the latter case which could be characterized as morphogenesis.

Now, one can analyze how the morphogenesis of law copes with the block produced by paradoxes and, despite extreme fluctuations, achieves stability. The practice of law transforms indeterminacy into relative determinacy. Autopoiesis theory offers an analysis of the practical solutions to the indeterminacy problem via the conjunction of the following elements: self-reference — paradox — indeterminacy — stability through "eigenvalues". By applying its distinction between legally right and wrong, the legal system founds itself upon a self-referential circle. This leads inevitably to the situation of tautology and paradox and, therefore, into a fundamental indeterminacy of law. One need not, however, stop at this indeterminacy, nor yet flinch from it. For practical solutions to the indeterminacy problem induced by paradox do exist. The attitude of the rabbis in the synagogue toward the paradox of self-reference seems to be: "If it hurts or is unfair, eliminate it or prevent its application through adjudicatory devices; otherwise smile at the sweating logicians" (Suber 1990: 21.10).

But what is the principle that justifies this attitude? The key lies in the "de-paradoxification of paradoxes," in the "creative use of paradoxes, in the transformation of infinite into finite information loads, in the translation of indeterminate complexity into determinate complexity" (Luhmann 1987: 320).

One may, with von Foerster (1981: 274; 1985: 36), embark on a *fuite en avant* and rely on self-reference itself to lead ultimately to stable solutions, by the emergence, from the continual recursive application of an operation, of "eigenvalues," stable in themselves. A classical example of an eigenvalue from autologic is: "This sentence has ?? letters." The number thirty-one is an eigenvalue of this sentence. More generally, from continual recursive "computation of computation," a system learns those modes of operation that are valid in its coping with an environment which is inaccessible to the system. Or one may, like Boaventura de Sousa Santos (1987: 281), inspired by poets who "overcome the anxiety of influence by misreading (or distorting) poetic reality," interpret law as a continuous "misreading of reality." Alternatively, one may, with Luhmann (1984a; 1986b: 16ff.), beat about the bush, seeking social solutions to self-reference by concealing paradox, belittling it, reinterpreting it as mere contradiction and by other historically identifiable techniques of "de-paradoxification." The construction of the legal system on the basis of the legal code (right/wrong), which minimizes the paradox of self-reference into a (prohibited) contradiction and, at the same time, keeps it latent, would then be a major cultural achievement.

V

So far, our considerations indicate a need for a new direction in the critique of law. Traditionally, the critique of law implies a challenge to the status quo — a challenge fulfilled by the unmasking of paradoxes and contradictions. If it is true, however, that the whole legal system is built up upon a fundamental paradox, then it is not worthwhile to attempt critiquing an apparent legal order by discovering ever new paradoxes and contradictions. A more fundamental question intrudes: given the basis of an indeterminacy-producing paradox, how is legal order possible at all? Since indeterminacy of law is the ordinary rule, determinacy, order, and system are the exceptions that require explanation.

However, rather than merely critique the critique of law for failing to do justice to the fundamentality or pervasiveness of indeterminacy, I would prefer to continue the critique of indeterminacy but to carry it further. It is important to see that there are classes of legal indeterminacy that do not come simply from the fundamental legal paradox or the mere difference between structure and event. These exist in every kind of law. The contemporary critique of law rightly

reacts to a new and disturbing quality of indeterminacy in law, manifested today by the emergence of such phenomena as the balancing of interests, the increased use of general clauses, the spread of sociological jurisprudence and legal economics (see Maus 1986: 277ff.; Joerges 1987a; Teubner 1987a: 15ff.).

In Germany one immediately thinks of such classics as Franz Neumann (1937) and Max Weber (1921) or, for the narrower area of private law, Justus Wilhelm Hedemann (1933) and Franz Wieacker (1956). As is well known, Franz Neumann (1967, 47ff.) made the development of capitalism into monopoly capitalism responsible for this new indeterminacy. Capitalism no longer demands a calculable formal legal order, requiring instead highly indeterminate discretionary government interventions which are now functionally sufficient to underpin the self-created order of the economy. Max Weber (1978, 822ff.) picked out economic and social interests that favored penetration of the formal rationality of law by utilitarian, ethical, and political elements, sabotaging the law's determinacy and calculability. Such legal scholars as Hedemann (1933) were alarmed at the "escape into general clauses": were they not "softening of the bones of law"? Wieacker's attempt finally (1956) to clarify the indeterminacy of general clauses in theoretical terms by recourse to the tradition of judge-made law has not so much solved the problem of the new indeterminacy as merely shifted it on to a different level.

Today, a variety of theorists have emerged from the backward-looking view that perceives a "logic of decay" in the uprise of the new indeterminacy. Rather, they interpret the disquieting new indeterminacy of law as an index of a possible new rationality. I shall mention only Wiethölter's new proceduralization of law (1982a, 1982b, 1985, 1986a, 1986b), Ladeur's concept of an "ecological law" (1982, 1984a, 1984b, 1986, 1988), and Boaventura de Sousa Santos's new "legal pluralism" (1987).

Ladeur has brought these developments to a common denominator. The transformation of the "society of individuals" into a "society of organizations" brings about the replacement of universalist law by a "strategic law." To understand the latter, the thought patterns of "order from fluctuation" and "dissipative structures" (Prigogine 1978) appear to be appropriate. I prefer different emphases, interpreting the dominant emergence of formal organization as a partial aspect of a more general phenomenon, that of the closure of social spheres — among them formal organizations — into self-referentially operating

autopoietic systems. This yields a new kind of conflict situation: an irresolvable conflict between information and interference, that is, between the systems' own constructions of their environmental systems and the operative reality of those environmental systems, which they can really experience but not reproduce within their own operations. The result of this conflict is either disintegration of the system's specific construction of the environment, or else its high situational indeterminacy.

I cannot here reconstruct the whole theory of autopoietic systems, but merely endeavor to make its relevance for legal indeterminacy plausible. In this context, it is a problem of second-order autopoiesis (Jessop 1990). The new indeterminacy arises only when, on the basis of general social communication, certain communicative spheres become independent as first-order autopoietic systems (formal organizations, politics, law, economy, education, etc.). In the course of social evolution, these communicative spheres self-referentially constitute their own components—elements, structures, processes, relations with their environment—that differ from those of general social communication. When these components, in turn, become linked hypercyclically, so that elements produce structures and vice-versa, the process reaches a relative endpoint (Teubner 1988b, taking up from Eigen and Schuster 1979). The effect of this hypercyclical closure is great efficacy of the systems in dealing with their environments. They have no direct communicative contact with their social environment, but construct an environment of their own, using their own operations. This results in radical openness to the environment, based on radical operative closure. The consequence is increased possibilities of action; but also increased demands in respect to precision, formalization, internal consistency of decision making, and determinacy of operations.

For example, the economy constructs society for itself via the language of prices; it does not treat law as binding instructions for conduct, but includes it in its calculations as a cost factor (amount and likelihood of sanctions). Politics constructs its "public" for itself via the language of power; law constructs its "legal reality" via the distinction between right and wrong.

The conflictual aspect of this seemingly "harmonious" interplay of social spheres is interference (on this, see Jensen 1978: 116; Münch 1980: 1982; Luhmann 1981: 191ff.; 1984b: 186ff.; 1988a: 338ff.; Teubner; Willke 1990). Functional subsystems coexist not in cleanly

separated fashion, as it were side-by-side in space, but interact in at least two possible points of friction: communications appear simultaneously in several autopoietic circuits, and people act in various system contexts. A third, and still not very clear, area of interference — the "overlap" between functional subsystem and society — may provisionally be termed structure or system interference. The consequence of such interferences is that outside descriptions of the surrounding systems conflict with their real operations. Let it be clear that this does not mean the "academic" conflict of different internal and external descriptions (e.g., the question of whether the law's image of the economy corresponds with the economy's image of itself), but the harder conflict between the way the environment is construed within the system (the law's picture of the economy) and the operations that actually take place in the surrounding systems which are, in turn, autopoietically closed (actual economic processes).

Because of its own operative closure, the real operations of the other, surrounding systems are not accessible to any system. It produces (not receives!) only information about the surrounding world that is internal to the system and controlled by its own code and its own programs. At the same time, however, via interference phenomena, the system is exposed to the operations of surrounding systems also functioning according to their own codes, which then become clearly perceptible as interference, disturbance, noise. And no "order from noise" makes sense here. For, since the order can always only be the system's own order, the system continually reacts in the same way, merely increasing the interference and noise, ultimately leading to mutual amplification of the troubles.

The system has one possibility of avoiding a positive-feedback catastrophe. It may endeavor to vary its own observations, say, by incorporating the environment system's descriptions of itself into its own description of it. But this leads in principle only to a new and equally serious problem. Incorporation of an external code into the system's own operations, if consistently carried out, means disintegration. It signals the end of its operations based on its specific code (cf. Teubner 1987a, 19ff.). Therefore, only one unsatisfactory compromise escape remains: leave its code untouched but adapt its program to the other's self-descriptions, as long as they are compatible with the code. This presupposes a clear separation between code and program (see Luhmann 1990). The cost of this solution is that the program becomes extremely indeterminate. It must, on the one hand, adapt to the real

requirements of the social environment, and, on the other, remain compatible with the system's code. All that remains is a situational adjustment without possibilities of universalization.

Applying this to law, one very quickly comes up against the economic and political instrumentalization of modern legal formality which is the underlying source of the new indeterminacy of law. On the side of the law, there is Max Weber. In contemporary terms, modern legal formality is an expression of the hypercyclical self-referentiality of law. It is distinguished not only by self-constitutive legal acts as elements, "secondary norms" as structures, reflexively normed legal procedures, and an internally constructed "legal reality," but by the cyclical linkage of these components through reciprocal production of elements, structures, identity, and processes. Consequently, heightened claims press on the internal consistency of decision-making, on dogmatic treatment, on legal determinacy, on certainty of decision, etc. This pressure produces the motivation for a critique of legal indeterminacy in the first place.

On the side of the law's environment, we meet with a systemically generalized Franz Neumann: the reality constructions of formal law, produced in closed, self-referential fashion, enter into conflict with the actual operations of their surrounding systems. The developments in the economic system (from early capitalism to monopoly capitalism) addressed by Neumann would then be an illustrative sub-phenomenon of the environmental changes that induce uncertainty. The escape lies in the law's adoption of political and economic self-descriptions, in increased incorporation of political expediency and economic utility into legal calculations. If this is really taken seriously — if the right/wrong code is in fact replaced by political expediency or economic utility — it entails "cadi justice." Legal conflicts are decided in a fashion arbitrary from the legal system's viewpoint, in accordance with criteria external to the system. "Efficient breach of contract" (Posner 1977, ch. 2; Harris and Veljanovski 1986, 114f.) or the criterion of "optimal regulation" developed by Easterbrook and Fischel (1982, 1177) exemplify how the legal code can be directly replaced by another code, as does the direct application of policy arguments to individual cases.

Usually, however, legal practice chooses a different technique for handling interference. The legal code remains intact; only the program changes so as to adapt as far as possible to the self-description of the surrounding system. Policy issues and considerations of consequences are not, therefore, reflected at the level of the individual

case by having the validity of the final decision depend on the unfolding consequences or the success of the policy (cf. Luhmann 1988b, 25). Instead, a separation of levels occurs, as with rule utilitarianism/act utilitarianism. The program is partly determined by general considerations of consequences, policy viewpoints, and efficiency criteria; but it is then subjected to the legal code, treated as valid law, and converted into a decision according to right or wrong. The result of this precarious compromise is a dramatic rise in the indeterminacy of law. But law must pay the price of indeterminacy to achieve any success whatsoever in handling interferences among autonomous social spheres.

Thus, the altar of social responsiveness demands a painful sacrifice from formal law: withdrawal of the claim to internal consistency. The new responsive law works out legal categories in confrontation with various social subspheres. By their very nature, these categories cannot make claims to universal legal consistency. Even within the legal system, the process of internal differentiation of law parallels that of functional differentiation of society. Long ago, law surpassed the traditional major subdivision into public law, private law, and criminal law. Contemporary "private law" embodies a multiplicity of special private laws, long without conceptual, doctrinal consistency (see Joerges 1981: 123ff.; 1983: 75ff.; 1987a: 166ff.; 1987b: 195ff.). The background of social differentiation makes the recurring calls for reintegration appear hopelessly out of step with reality (e.g., Wolf 1982: lff.). Contemporary judicial and legislative practice reorganizes law, from a dogmatically controlled legal unity toward a multiplicity of functional legal territories.

VI

Does this not rather recall Pascal's complaint: "A funny justice that ends at a river! Truth on this side of the Pyrenees, error on that?" (1669, 294). Could not a similar complaint be made today concerning the arbitrary lines drawn between areas of law, except that it would not be rivers and mountains but symbolic media, codes, and programs that would mark the boundaries? In fact, not only is the problem similar; historical experience of handling such problems may also be made use of in our approach. There is a long history of the law's experience with system conflicts of a specific type, with conflicts between different national legal systems on a territorial basis, for which a highly developed doctrine for conflicts of law has been formulated (see Kegel

1987: 98ff.). Is it possible to learn from that history how to transfer experience with conflict between territorial subsystems to conflicts between functional subsystems? Does it make sense to develop principles and norms of an "intersystemic law," a law of conflict between different discourses in society?

Indeed, the growth of worldwide fields of interaction in science, technology, the economy, public communication, and travel tends to weaken the significance of territorial frontiers and increase that of frontiers between such functional spheres. Should the law then not shift its focus to other conflict zones: more intersystemic rather than international law of conflict? From the autopoiesis viewpoint it is entirely plausible to speak of a dominance shift in conflict from that between territorial, political, and national units to that between functional subsystems of world society (Luhmann 1975b: 51; 1982: 131; Willke 1983: 49ff.).

Similar observations stem from Boaventura de Sousa Santos (1987: 297ff.), who sees in "interlegality" a dominant feature of an emerging "post-modern law":

Legal pluralism is the key-concept in a post-modern view of law. Not the legal pluralism of traditional legal anthropology in which the different legal orders are conceived as separate entities coexisting in the same political space, but rather the conception of different legal spaces superposed, interpenetrated and mixed in our minds as much as in our actions, in occasions of qualitative leaps or sweeping crises in our life trajectories as well as in the dull routine of eventless everyday life. We live in a time of porous legality or legal porosity of multiple networks of legal orders forcing us to constant transitions and trespassings. Our legal life is constituted by an intersection of different legal orders, that is by interlegality. Interlegality is the phenomenological counterpart of legal pluralism and that is why it is the second key concept of a post-modern conception of law. Interlegality is a highly dynamic process because the different legal spaces are non-synchronic and thus result in uneven and unstable mixing of legal codes.

And, in Germany, a number of interdisciplinarily oriented sensitive observers of recent developments in legal doctrine—such as L. Raiser (1971), Kübler (1975), Wiethölter (1977), Walz (1980), Joerges (1981), Ladeur (1984)—have begun to formulate a new law of conflict, which should be generalized for further development.

First reference must be made to Wiethölter (1982a, 1982b, 1985, 1986a, 1986b). His concept of proceduralization evidences a kinship

with the development of "collision rules," and so Wiethölter's (1985, 247) "support goes to... an understanding of proceduralization as a justificatory problem of 'rational' practical actions under 'system' conditions (= justification of collision rules in the exercise of judgmental competences)." To work out the more recent problem situation, he adduces the conceptual machinery of classical conflict of laws:

In the fundamental legal principle of proportionality I have sought to define the most influential machinery of transformation for the osmosis, translation, for covariance of law and society, as the supreme and most general productive principle of an — admittedly silent, and absolutely unavoidable — justification of collision rules for the decision of conflicting rights, interests and needs. Legal relationships are in fact (in Germany since the days of Savigny) neither pure objects of evaluations nor pure evaluations of objects, but have always been premediated general decisions on the assignments of facts to a particular law by way of connection, the qualification of legal answers to social questions.

But one thing remains remarkably vague: which units clash? Looking for an answer in Wiethölter's texts (especially Wiethölter 1985, 1986a, 1986b), it remains unclear if they were conflicts of political interests, ideological camps, sociolegal models, general legal principles, legal subsystems, program structures, social subsystems, subrationalities, or political strategies. Even from the viewpoint of autopoiesis, the question of identifying the relevant units that collide is not an easy one. As an attempt, I would propose the following distinction: 1) conflicts between autopoietic social systems; 2) conflicts between the quasi laws of semiautonomous social fields; 3) conflicts between fields within the law.

1) Law of conflicts must address clashes between different autopoietic social systems, be they functional subsystems (politics, economy, family, religion, science, culture), formal organizations or specialized interactions. Here the first major problem is whether a translation of the conflict into the legal code is desirable at all. Because of the well-known trend toward increasing legal cognition of social claims, we uncritically fail to ask this question. But the most recent experience with the phenomenon of "juridification" ought to have sensitized us to whether such conflict norms ought not be developed (Voigt 1980, 1984, 1986; Kübler 1984; Kettler 1987; Teubner 1987b). Nonet and Selznick, for instance, propose a legal evaluation of civil disobedience based not upon formal legal criteria, but upon a "political paradigm."

Such a framework would treat instances of civil disobedience as objects of political negotiation (Nonet and Selznick 1978, 92f.). "Forgiveness for rule breaking is readily negotiated in the interest of reconstituting a framework within which cooperation can go forward." Simitis and Zenz (1975, 51) and Habermas (1985, 217ff.) similarly stress law's paradoxical capacity to preserve a nonlegalistic resolution of particular conflicts in family and school contexts.

The open question is, when the rationalities of social spheres clash, can law develop conflict norms which, through juridification, in fact work *against* juridification? Can law abdicate to the conflict-solving possibilities of other social contexts? Can it develop legally codified rules about the application or nonapplication of its own code (Luhmann 1990)?

The second major problem is whether law can content itself with "formal" rules referring disputes to the rationality of one or another of the conflicting spheres, or whether it must, because of the "trans-systemic" nature of the conflicts, develop "substantive rules" of its own. This is a choice well known to the law of conflicts. Ladeur's ideas seem to point more in the first direction, when he says:

The strategic acting of the legal system remains bound to the horizon of the production of action orientation in other systems, but instead of orienting itself on the equilibrium-parameter of behavior-regulation, the law orients itself on the possibility of the (re-)equilibrizing and compatibilizing of values and action-perspectives for complex action-networks. (Ladeur 1986, 270)

My ideas on the function of general clauses ("good faith" or "public policy" clauses) pursue the second direction. From the very process of reconciling different system rationalities substantive norms emerge in the legal process (Teubner 1980: 44: 84ff., see below, sec. vii).

Finally, there is negotiation among autonomous social fields. This suggestion bears a strong resemblance to international agreements for solving norm conflicts. In both cases, conflicts of expectations are resolved through negotiation rather than a referral to either side or a substantive legal intrusion. The oft quoted "neocorporatist" negotiating systems are no doubt at the moment the most spectacular case of how intersystem conflicts can be dealt with by recourse to *ad hoc* specialized formal organizations, with no recourse to legal rules (Streck and Schmitter 1985: 21; Traxler and Vobruba 1987). Yet this technique does not truly "bypass law" (Ronge 1980), instead co-

existing alongside it. Law comes in with a "secondary wave of juridification" of the self-regulatory processes themselves: law focuses on procedural and organizational premises, rather than on the achievement of specific results (Simitis 1987: 140ff.). Solutions like this meet policy needs by gearing law toward procedure and organization so as to adapt social self-regulation to systems' own learning capacity.

2) The conflict between State law and the quasi-law of various social fields, or among the latter, is a second problem area for a new law of conflict. Moore (1973: "semi-autonomous social fields"), Mnookin and Kornhauser (1979: "bargaining in the shadow of the law"), Galanter (1981: "Justice in many rooms"), Cotterell (1983: "juridical pluralism"), Fitzpatrick (1984: "law and societies"), and Griffiths (1986: "legal pluralism") have investigated the modern phenomena of an "indigenous law," indicating lines of conflict. In contrast to the intersystem conflicts mentioned under 1), in which functional subsystems with differing codes, programs, and rationalities collide, here conflicts within the law itself arise — though admittedly a law understood in "pluralist" terms. Conflict resolution in economic enterprises, associations, cultural organizations, or even interorganizational relationships have a genuine legal character if conflicts are defined as conflicts of expectations and decided via the singling out of binding expectations. To that extent, the State has no monopoly on legal order.

Societies contain a multitude of partially self-regulating spheres or sectors, organized along spatial, transactional or ethnic-familial lines ranging from primary groups in which relations are direct, immediate and diffuse to settings (e.g., business networks) in which relations are indirect, mediated and specialized. (Galanter 1981: 163f.)

When mediating between these sectors, courts must control standardized terms of trade, articles of association, and corporate bylaws. Early formal judicial techniques looked to them not to discern "meeting of the minds", but instead they attempted to develop conditions necessary to manifest "subjection." Later, as courts recognized the asymmetric nature of these agreements, judicial techniques took a substantive turn, considering and changing the content of standardized agreements. The question is what the criteria are to be. Can the idea of an intersystemic law of conflict offer something here which can give formulas of "appropriateness," "fairness," etc., some signposts that go beyond situational considerations of equity?

The answer lies in a reformulation of the "balancing of interests." This peculiar judicial technique can be detached from reference to individual or collective actors and cast in terms of a conflict between communicative networks. Usually, interest jurisprudence finds reflected in legislation a balance between individuals and groups, and, using this as a guide, does justice by reconstructing this balance on a case by case basis. Converting balancing of interests in terms of individuals and groups to network thinking would mean that courts engaged in controlling general terms of trade or corporate bylaws would have to pick out and balance specific regularities, functional requirements, and guiding principles of the conflicting social fields involved.

These are the lines along which, I feel, Joerges's analyses are aimed: they have to do with the legal control of private systems of order (general terms of trade, long-term contracts). Joerges suggests a conflict-law viewpoint which can be understood in terms of balancing competition policies and consumer protection policies (Joerges 1981, 1983, 1987a, 1987b). I would raise a number of reservations as regards Joerges's governmental policy orientation. Does judicial control over private orders have to do only with political goal conflicts? Is this not rather the secondary conflict by comparison with the basic conflict between the functional regularities of the market, economic organization, and the demands of private life? But these are mere quibbles. The decisive thing is to detach the balancing of interests from the superficial plausibility of individual and group interests and bring it into the context of conflicts between social discourses.

This kind of discourse-oriented viewpoint ought also to prevail when it comes to, not a posteriori content control, but legal control over the constitutional conditions of quasi-legal suborders. Quite irrespective of whether it has to do with interest representation within safety-standards committees, codes of conduct adopted by associations for advertising, competition rules pursuant to the antitrust law or disciplinary procedures in firms and associations, judicial control ought to be exercised so as to ensure that interests outside the system are taken into account by internal procedures and organization.

3) Finally, a functional law of conflict ought to deal with system conflicts internal to law. As previously explained, fragmentation of law is nothing but the legal transcription of functional differentiation of society. Both legislatures and courts seek reactively and *ad hoc* to arrive at a precarious compromise between functional requirements

of social subsystems, political control objectives, and requirements internal to the legal system. This results in very separate legal fields, administered by specialized legal experts who identify with the corresponding social spheres at least as strongly as with the law itself. Conceptual and normative conflicts between such legal fields are unavoidable and are very much the order of the day. Considerable legitimation problems ensue. Although the discrepancy between the meanings of contract in civil law and in antitrust law can be tolerated by relevant experts, in other cases even experts cannot justify the contradictory logics of different legal fields. The tax-deductibility of bribes is a case in point. Despite such anomalies, the demands for a restoration of the "unity of the legal system" (Wolf 1982) have only rhetorical character, or are raised only tactically on suitable occasions.

A more serious strategy is the opposing one, which enhances specialization by insisting on the purity of particularized principles in a given legal field. Thus, antitrust lawyers executing general clauses in antitrust law refuse to take account of legal principles recognized in other areas of law. Such legal isolationism fails to prevent inter-system clashes. Instead, the handling of these is left to happenstance: individual cases address contradictions as they crop up, with no meaningful footing in a doctrine of conflicts.

A principle that is realistic and at the same time normatively defensible would seem by contrast to be "relative autonomy of legal fields." Although Walz developed this principle based on the example of conflicts between private law and tax law, it can be generalized. Explicitly borrowing from thought patterns of the law of conflicts, Walz recognizes a high degree of autonomy of specialized legal fields, restricting it only in cases where problems of "ordre public" arise. Each legal field will develop its doctrinal structures according to the demands of the social segment involved, but in cases where problems of "ordre public" arise, it must respect fundamental principles and policies of the other legal fields, incorporating them as self-restrictions in its own doctrine. This seems to me to be the only realistic way of reformulating the old idea of the unity of the legal order. In a legal system characterized by a high degree of internal differentiation, integration of the law cannot be achieved via values or via concepts. Rather, integration results from making compatible the autonomy of legal fields: the mutual recognition of each field's basic principles buffers the further development of principles, yielding an overall "loosely coupling."

VII

A functional law of conflicts thus requires internal mechanisms for solving disputes between social subsystems, between the quasilaws of semiautonomous social entities, and between fields within the law. A prominent example of such a mechanism are the general clauses in contract law ("good faith," "public policy"). The high degree of indeterminacy of these clauses suits them for dealing with conflicts between autonomous social spheres, although this was not their original purpose. Indeed, the very indeterminacy of general clauses, and the accompanying room for judicial interpretation, has earned such clauses a reputation as a prime example of the "materialization of private law" (Max Weber 1978, 882ff.; Assmann et al. 1980). Josef Esser (1956, 556) has described this shift in their function as "judicial interventionism run riot," in the process of which "observance of statute and contract" are replaced by "regulatory, controlling and ultimately patronizing judicial power."

In one sense, this criticism is too narrow, for it assumes only judicial state interventionism upon contractual arrangements. This unduly restricts the role of general clauses in conflicts among social discourses. From the viewpoint of an interdiscursive law of conflict, general clauses filter not only state interventionism affecting the contract, but also influences from all other social discourses. The ensuing materialization represents an attempt to use legal means to achieve coordination—troublespots in highly differentiated societies—between the contradictory social demands now placed on the contract. In this sense, materialization means making the dependence of contractual expectations on multifarious nonconsensual normative structures including governmental interventions, visible, and coordinating these within the contract.

To understand this view of materialization requires a reformulation of the contractual relationship as an autopoietic system in a world of autopoietic systems (see Deggau 1987a: 1987b). Such an understanding replaces traditional contract theory's simple consensus model of a "meeting of the minds" with the more modern concept of the contract as a multifaceted social relationship. Classical concepts of the system as a whole consisting of elements and relations have laid the groundwork for this reformulation. These concepts include: defining the contract as an "institution" elucidates the connection between legal norms and social structures (L. Raiser 1963: 147); conceptualizing the contract as an "organism" (Siber 1931: 1) provides a model

of a living whole whose parts collaborate cohesively; regarding the contract as "structure and process" picks up on two central system aspects (Larenz 1987: 25 V); finally, viewing the contract as a "worked out plan" stresses its purposive organization (E. Schmidt 1984: 81).

Theories of "relational contract" have developed a similar view (Macneil 1980; Köndgen 1981; Schmid 1983: 108ff.; Daintith 1986; Joerges 1987b: 211f.). In contrast to the simple model of contractual consensus, "relational contract" focuses on "interaction and cooperation among the participants, on resulting values and needs, on contract as process, on the marginality of formal contract law in relation to the actual behavior, on the ambivalence of 'juridification' of contract via numerous state interventions" (Joerges 1987b: 211f.). Köndgen (1981, 12, 128) describes "relational" thinking in contract law as "distancing from the dogma of the final quasi-codificatory validity of contractual consensus." It means a "'microscopical' analysis of expectations and perceptions of reciprocity of the parties and 'macroscopical' analysis of changes in the general expectations in the modern social state."

Such ideas, which evoke "the flexibility peculiar to the contract in dealing with social reality" (Gernhuber 1983, 53), have been developed further into a concept of contract as a social system open to the environment. Thus, a contract not only redeems the consensus of the parties—it has its own particular functional problems to solve in responding to outside influences while maintaining its boundaries (cf. Parsons and Smelser 1956: 104ff., 143ff.). The contract is then defined as a complex of actions, whose internal ordering depends not only on consensus, but simultaneously on requirements of very diverse social subpheres (cf. Teubner 1980: 45ff.). This simultaneous dependency prefigures the conflict issue, whereby the contract is faced with contradictory structural requirements.

Contract as a social system appears recently in the works of J. Schmidt (1985: 184ff.). Schmidt rightly rejects a person-oriented concept in which the parties to the contract appear as elements. Instead, "elements of the system are no longer (empirical) people or role segments from the set of roles of empirical people, but social interactions, i.e.: rationally ordered complexes of action." This move highlights the environment of the contract: politics, the economy, the law, in relation to which the contract develops its structures. This model, however, still remains entirely within the theory of open systems (similar to the "contingency theory of organization" [Lawrence and Lorsch 1967, 1969]). Contractual structures emerge in dependency on the system's environment.

In moving beyond open systems theory, an autopoietic reformulation would modify this model in a constructivist direction, building in additional levels of observation (von Foerster 1981). On this view, the contract is, in one sense, a self-reproductive interaction system that defines its own environment and interacts with it accordingly (i.e., the environment is communicatively constructed among the contractual parties). And, in another sense, the contract is an "object of observation" for the law, part of its self-defined environment (i.e., the focus of certain legal communications). Mutual interference between the contract and the law of contract generates the dynamics of the contractual relationship: it is defined exclusively neither by the terms of the consensus itself nor the dictates of the law—nor any other subsystem for which the contract is object.

The "noncontractual elements of contract" (Durkheim 1933) are then nothing but the contractual reconstruction of demands of diverse social spheres on the specific contract. These demands surface on three levels, corresponding to different levels of system formation: (1) at the "interaction level," the contract reconstructs the expectations of the contractual partners, constituting their personal relationship; (2) at the "institutional level," the contract has to deal with the demands of market and organization, surpassing the expectations of the individual parties to the agreement; (3) at the "societal level," the contract has to cope with the requirements of the large functional subsystems such as "politics," "economy," and "law." These levels do not interrelate hierarchically; in principle they are distinguishable modes of system formation, yet they have the "contract" in common because it interweaves with each (on the three levels of system formation, cf. Luhmann 1975a: 9ff.).

Returning to our original quest for an internal mechanism for resolving intersystemic disputes, the general clause can now be understood as a collision rule for intersystemic conflicts. It provides room for dispute resolution within each level, and, in recognizing the existence of the different levels, allows for their legal synchronization.

The current debate over "materialized" general clauses converges on exactly this process: the "compatibilization" of contradictory social requirements on the specific contractual relationship. In this sense one may speak of a "socialization" of contract via general clauses, of an eruption of "social chaos" (Struck 1982, 259) into contract law. The present task of general clauses consists in reducing the random nature of this socialization, transforming its *ad-hoc*-character into a more systematic taking into account of social requirements.

In more detail:

(1) *Interaction level.* Legal sociology indicates that informal norms arise in a dyadic contractual relationship which compete with formalized contractual expectations. Mutual coordination of conduct and its stabilization across time entrench informal norms in the dyadic contractual relationship. These informal norms influence the parties' conduct no less strongly than the formalized declarations of the agreement (on this, see Max Weber 1978: 754ff.; Geiger 1964: 46ff.; Köndgen 1981: 167ff.; Luhmann 1985b: 25ff.). Clashes at the interaction level result from disruptions of these norms, when the parties' informal norms collide with contractual expectations. Via the general clause, judges can recognize those conflicts that arise from the personal interaction of the contracting parties and develop legal solutions. The norms generated by the personal interaction itself reduce the indeterminacy of the general clause, which, in turn, validates this solution as legal.

(2) *Institution level.* Beyond personal expectations, a set of structural requirements on the contract emerge due to its involvement in broader institutional contexts, like market and organization. Contract law must acknowledge this contextualization of the contract, too. Thus, the general clause assumes the task of coordinating the "external relationships" of the contract, ensuring that contractual obligations suit institutional structures. For reduction of indeterminacy, the judiciary relies on standards and understandings derived from institutional context: legally sanctioning social standards; authorizing norms apt for roles as determined by institutional context; redefining roles in response to the interests of the institution.

(3) *Societal level.* In a differentiated society, the contract is interwoven in a multiplicity of social discourses (i.e., "politics," "economy," "family," "culture," "religion"). With this arrangement comes potential for conflict between the contract and other social discourses. As differentiation increases, the autonomy of the social discourses increases, but so does their interdependence; if the separate regularities of the social discourses become stronger, so do the frictions, contradictions, and conflicts among them. Contracts serve to stabilize this interdependence—acting, as it were, as islands of stability in a sea of turbulence. They can do this, however, only with the aid of mediatory devices. General clauses take over this role.

VIII

The mediatory role of general clauses in contract law enables us to perceive ways of coping with legal indeterminacy under modern conditions. Unlike in our original rabbis' hierarchically ordered society, here indeterminacy cannot be put off by the extreme elevation of the highest layer of authority — because functional differentiation of society means lateral interdependence, not hierarchical order. To deal with the new nonhierarchical indeterminacy, the law must use tools like the general clause to diagnose and address failures of diverse social discourses. Is it sufficient for the law to refer to the social discourse's own rationality or does a failure of such rationality (market-failures, organization-failures, regulation-failures, etc.) necessitate a compensatory legal formulation in order to take demands of their environment into account? Such a legal program, which attempts to mediate between diverse spheres of social life, constitutes a challenge of the first order to the reflective capacity of legal doctrine. Is legal doctrine in a position to combine consistency requirements of the legal discourse with the demands of other social spheres?

This formulation takes off from Luhmann's reformulation of the concept of justice (1973), relating justice to the "two-fold contingency of social requirements, upon legal stabilization of conduct of life on the one hand, and level of requirement within the legal system on the other" (Luhmann 1974: 49). The open question, however, is whether law, as Luhmann clearly supposes, can take account of "social requirements" only in an *ad hoc* way, from case to case, evolving blindly from one political scandal that sparks off legislation to another. Or is the legal discourse capable of methodically developing legal criteria for the requirements of the self-reproductive discourses that surround it? With an affirmative answer to this question, justice — a contemporary version of *iustitia mediatrix* (Placentinus 1192) — would no longer mediate "vertically" between the positive and divine law of hierarchically structured societies. Instead, in response to functional differentiation, it would "horizontally" balance the consistency requirements of positivized law and the demands of a multiplicity of autopoietically closed social spheres.

Yet both types of mediation, be they "vertical" or "horizontal," only reduce the impact of the original paradox of law, keeping it latent and ultimately failing to attain the proclaimed achievement of deparadoxification. Rabbi Eliezer's hierarchy of legal sources, topped

by the obscure twilight of natural or divine law had symbolized the latency of this paradox. And its modern equivalent, functional differentiation of social systems, likewise serves as a repression mechanism making invisible the fundamental paradox. As with any repression mechanism, the repressed paradox of law continually returns by a back door: "And God laughed"... (see 15ff.).

Bibliography

- Albert, Hans. 1985. *Treatise on Critical Reason*. Princeton: Princeton University Press.
- Alexy, Robert. 1978. *Theorie der juristischen Argumentation*. Frankfurt a.M.: Suhrkamp.
- Assmann, Heinz-D., Gert Brüggemeier, Dieter Hart, and Christian Joerges. 1980. *Wirtschaftsrecht als Kritik des Privatrechts*. Königstein/Ts: Athenäum.
- Babylonian Talmud. 1935. *Baba Mezia*. London: Soncino.
- Bateson, Gregory. 1953. "The Position of Humor in Human Communication." In *Cybernetics*, ed. H. von Foerster. New York: Macey.
- _____. 1972. *Steps to an Ecology of Mind*. New York: Ballantine.
- Benjamin, Walter. 1977. *Gesammelte Schriften* Bd. II. Frankfurt: Suhrkamp.
- Boyle, James. 1985. "The Politics of Reason: Critical Legal Theory and Local Social Thought." *University of Pennsylvania Law Review* 133:685.
- Cappelletti, Mauro. 1985. "Who Watches the Watchmen? A Comparative Study on Judicial Responsibility." In *Judicial Independence*, ed. S. Shetreet and J. Deschenes. Dordrecht: Martinus Nijhoff, 550.
- Cotterell, Roger. 1983. "The Sociological Concept of Law." *Journal of Law and Society* 10:241.
- Daintith, Terence. 1986. "The Design and Performance of Long-Term Contracts." In *Contract and Organisation*, ed. T. C. Daintith and G. Teubner. Berlin: de Gruyter, 164.
- Dalton, Clare. 1985. "An Essay in the Deconstruction of Contract Doctrine." *Yale Law Journal* 94:997.
- Deggau, Hans-Georg. 1987a. "Die Geschäftsgrundlage. Eine methodische Irritation der Zivilrechtsdogmatik." Hannover: Typoscript.
- _____. 1987b. "Versuch über die Autopoiese des Vertrages." Hannover: Typoscript.
- Durkheim, Emile. 1933. *The Division of Labor in Society*. New York: Free Press.
- Easterbrook, Frank H., and Daniel R. Fischel. 1982. "Antitrust Suits by Targets of Tender Offers." *Michigan Law Review* 80:1155.
- Eckhoff, Torstein. 1978. "Feedback in Legal Reasoning and Rule Systems." *Scandinavian Studies in Law* 41:39.

- Eigen, Manfred, and Peter Schuster. 1979. *The Hypercycle: A Principle of Natural Self-Organisation*. Berlin: Springer.
- Escher, Mauritius C. 1961. *Waterfal*. Lithographie. Den Haag: Haags Gemeentemuseum.
- Esser, Josef. 1956. "§ 242 BGB und die Privatautonomie." *Juristenzeitung* 555.
- _____. 1970. *Vorverständnis und Methodenwahl in der Rechtsfindung. Rationalitätsgarantien der richterlichen Entscheidungspraxis*. Frankfurt a.M.: Athenäum.
- Feinmann, Jay M. 1984. "Promissory Estoppel and Judicial Method." *Harvard Law Review* 97:678.
- Fitzpatrick, Peter. 1984. "Law and Societies." *Osgoode Hall Law Journal* 22:115.
- Fletcher, George P. 1985. "Paradoxes in Legal Thought." *Columbia Law Review* 85:1263.
- Flume, Werner. 1983. *Allgemeiner Teil des bürgerlichen Rechts I/2. Die juristische Person*. New York: Springer.
- Foerster, Heinz von. 1981. *Observing Systems*. Seaside, Calif.: Intersystems Publications.
- _____. 1984. "Erkenntnistheorien und Selbstorganisation." *Delfin* 4:6.
- _____. 1985. "Entdecken oder Erfinden. Wie lässt sich Verstehen verstehen?" In *Einführung in den Konstruktivismus*, ed. A. Mohlar. Munich: Oldenbourg, 29.
- Frug, Gerald E. 1984. "The Ideology of Bureaucracy in American Law." *Harvard Law Review* 97:1276.
- Galanter, Mark. 1981. "Justice in Many Rooms." In *Access to Justice and the Welfare State*, ed. Mauro Cappelletti. Florence: Le Monnier, 147.
- Geiger, Theodor. 1964. *Vorstudien zu einer Soziologie des Rechts*. Neuwied: Luchterhand.
- Gernhuber, Joachim. 1983. *Bürgerliches Recht*, 2nd ed. Tübingen: Mohr & Siebeck.
- Gordon, Robert W. 1984. "Critical Legal Histories." *Stanford Law Review* 36:57.
- Griffiths, J. 1986. "What Is Legal Pluralism?" *Journal of Legal Pluralism* 24:1.
- Habermas, Jürgen. 1985. "Law as Medium and Law as Institution." In *Dilemmas of Law in the Welfare State*, ed. G. Teubner. Berlin: de Gruyter, 203.
- Harris, Donald R., and Cento G. Veljanovski. 1986. "The Use of Economics to Elucidate Legal Concepts: The Law of Contract." In *Contract and Organisation*, ed. T. C. Daintith and G. Teubner. Berlin: de Gruyter, 109.
- Hart, Herbert L. A. 1964. "Self-Referring Laws." In *Essays in Jurisprudence and Philosophy*, by H. L. A. Hart. Oxford: Clarendon Press, 1983.
- _____. 1983. *Essays in Jurisprudence and Philosophy*. Oxford: Clarendon Press.

- Hedemann, Justus Wilhelm. 1933. *Die Flucht in die Generalklauseln. Eine Gefahr für Recht und Staat*. Tübingen: Mohr & Siebeck.
- Hejl, Peter. 1984. "Towards a Theory of Social Systems: Self-Organization and Self-Maintenance, Self-Reference and Syn-Reference." In *Self-Organization and Management of Social Systems*, ed. H. Ulrich and G. J. B. Probst. Berlin: Springer, 60.
- Heller, Thomas C. 1985. "Legal Discourse in the Positive State: A Post-Structuralist Account." In *Dilemmas of Law in the Welfare State*, ed. G. Teubner. Berlin: de Gruyter, 173.
- Hofstadter, Douglas R. 1979. *Gödel, Escher, Bach: An Eternal Golden Braid*. New York: Basic Books.
- . 1985. "Nomic: A Self-Modifying Game Based on Reflexivity in Law." In *Metamagical Themes: Questing for the Essence of Mind and Pattern*, by D. R. Hofstadter. New York: Bantam, 70.
- Hutter, Michael. 1989. *Die Produktion von Recht*. Tübingen: Mohr & Siebeck.
- Jensen, Stefan. 1978. "Interpenetration—Zum Verhältnis personaler und sozialer Systeme." *Zeitschrift für Soziologie* 7:116.
- Jessop, Bob. 1990. "The Economy, the State, and the Law: Theories of Relative Autonomy and Autopoietic Closure." In *State, Law, Economy as Autopoietic Systems*, ed. G. Teubner and A. Febbraio. Milan: Giuffrè.
- Joerges, Christian. 1981. *Verbraucherschutz als Rechtsproblem*. Heidelberg: Recht und Wirtschaft.
- . 1983. "Der Schutz des Verbrauchers und die Einheit des Zivilrechts." *Die Aktiengesellschaft* 28:75.
- . 1987a. "Die Überarbeitung des BGB-Schuldrechts, die Sonderprivatrechte und die Unbestimmtheit des Rechts." *Kritische Justiz* 20:166.
- . 1987b. "Franchise-Verträge und Europäisches Wettbewerbsrecht." *Zeitschrift für das gesamte Handels- und Wirtschaftsrecht* 151:195.
- Kairys, David. 1982a. "Freedom of Speech." In *The Politics of Law: A Progressive Critique*, ed. D. Kairys. New York: Pantheon, 140.
- , ed. 1982b. *The Politics of Law: A Progressive Critique*. New York: Pantheon.
- Kegel, Gerhard. 1987. *Internationales Privatrecht*. 6th ed. Munich: Beck.
- Kelman, Mark. 1987. *A Guide to Critical Legal Studies*. Cambridge: Harvard University Press.
- Kennedy, David. 1985. "Critical Theory, Structuralism, and Contemporary Scholarship." *New England Law Review* 21:209.
- Kennedy, Duncan. 1976. "Form and Substance in Private Law." *Harvard Law Review* 89:1685.
- . 1982. "Legal Education as Training for Hierarchy." In *The Politics of Law: A Progressive Critique*, ed. D. Kairys. New York: Pantheon, 40.
- Kettler, David. 1987. "Legal Reconstitution of the Welfare State: A Latent Social Democratic Legacy." *Law and Society Review* 21:9.

- Köndgen, Johannes. 1981. *Selbstbindung ohne Vertrag*. Tübingen: Mohr & Siebeck.
- Kripke, Saul. 1982. *Wittgenstein on Rules and Private Language*. Cambridge: Harvard University Press.
- Krippendorff, Klaus. 1984. "Paradox and Information." *Progress in Communication Sciences* 5:46.
- Kübler, Friedrich. 1975. *Über die praktischen Aufgaben zeitgemässen Privatrechts*. Karlsruhe: Müller.
- . ed. 1984. *Verrechtlichung von Wirtschaft, Arbeit und sozialer Solidarität*. Baden-Baden: Nomos.
- Ladeur, Karl H. 1982. "Konsensstrategien statt Verfassungsinterpretation?" *Der Staat* 29:391.
- . 1984a. *Abwägung—Ein neues Paradigma des Verwaltungsrechts*. Frankfurt: Campus.
- . 1984b. "Flexibilisierungsstrategien—Alternativen zum 'Steuerungsstaat'—'Reflexives Recht'—'Prozeduralisierung'—'ökologisches Recht'." In *Workshop zu Konzepten des postinterventionistischen Rechts*, ed. G. Brüggemeier and Ch. Joerges. Bremen: ZERP Materialien, 4, 311.
- . 1986. "'Prozedurale Rationalität': Steigerung der Legitimationsfähigkeit oder der Leistungsfähigkeit des Rechtssystems?" *Zeitschrift für Rechtssoziologie* 7:265.
- . 1988. "Perspectives on a Post-Modern Theory of Law." In *Autopoietic Law: A New Approach to Legal Theory*, ed. G. Teubner. Berlin: de Gruyter, 242.
- Larenz, Karl. 1987. *Lehrbuch des Schuldrechts*. 14th ed. Munich: Beck.
- Lawrence, Paul R., and Jay W. Lorsch. 1967. *Organizations and Environment*. Boston: Harvard University Press.
- . 1969. *Developing Organizations: Diagnosis and Action*. Reading, Mass.: Addison-Wesley.
- Lüderssen, Klaus. 1986. "Wär' der Gedank' nicht so verwünscht gescheit, man wär' versucht, ihn herzlich dumm zu nennen." *Rechtshistorisches Journal* 5:343.
- Luhmann, Niklas. 1973. "Gerechtigkeit in den Rechtssystemen der modernen Gesellschaft." *Rechtstheorie* 4:131.
- . 1974. *Rechtssystem und Rechtsdogmatik*. Stuttgart: Kohlhammer.
- . 1975a. "Interaktion, Organisation, Gesellschaft." *Soziologische Aufklärung* 2. Opladen: Westdeutscher Verlag 9.
- . 1975b. "Die Weltgesellschaft." *Soziologische Aufklärung* 2. Opladen: Westdeutscher Verlag, 51.
- . 1981. "Interpenetration—Zum Verhältnis personaler und sozialer Systeme." *Soziologische Aufklärung* 3. Opladen: Westdeutscher Verlag, 151.

- _____. 1982. "The World Society as a Social System." *International Journal of General Systems* 8:131.
- _____. 1983. "Insistence on Systems Theory: Perspectives from Germany." *Social Forces* 61:987.
- _____. 1984a. "Die Rückgabe des Zwölften Kamels." Florence, Conference Paper.
- _____. 1984b. *Soziale Systeme. Grundriss einer allgemeinen Theorie*. Frankfurt: Suhrkamp.
- _____. 1984c. "Widerstandsrecht und politische Gewalt." *Zeitschrift für Rechtssoziologie* 5:36.
- _____. 1985a. "Society, Meaning, Religion – Based on Self-Reference." *Sociological Analysis* 46:5.
- _____. 1985b. *A Sociological Theory of Law*. London: Routledge and Kegan Paul.
- _____. 1986a. "The Autopoiesis of Social Systems." In *Sociocybernetic Paradoxes: Observation, Control and Evolution of Self-Steering Systems*, ed. F. Geyer and J. van der Zouwen. London: Sage, 172.
- _____. 1986b. *Die soziologische Beobachtung des Rechts*. Frankfurt: Metzner.
- _____. 1986c. "The Theory of Social Systems and its Epistemology: Reply to Danilo Zolo's Critical Comments." *Philosophy of the Social Sciences* 16:129.
- _____. 1987. "Autopoiesis als soziologischer Begriff." In *Sinn, Kommunikation und soziale Differenzierung*, ed. H. Haferkamp and M. Schmid. Frankfurt: Suhrkamp, 307.
- _____. 1988a. "Closure and Openness: On Reality in the World of Law." In *Autopoietic Law: A New Approach to Legal Theory*, ed. G. Teubner. Berlin: de Gruyter, 335.
- _____. 1988b. "The Unity of the Legal System." In *Autopoietic Law*, ed. G. Teubner. Berlin: de Gruyter, 12.
- _____. 1990. "Coding of the Legal System." In *State, Law, Economy as Autopoietic Systems*, ed. G. Teubner and A. Febbraio, Milano: Giuffrè.
- Macneil, Ian R. 1980. *The New Social Contract*. New Haven: Yale University Press.
- Maturana, Humberto R. 1982. *Erkennen: Die Organisation und Verkörperung von Wirklichkeit*. Ausgewählte Arbeiten zur biologischen Epistemologie. Braunschweig: Vieweg.
- Maus, Ingeborg. 1986. *Rechtstheorie und politische Theorie im Industriekapitalismus*. Munich: Fink.
- Mnookin, Robert H., and Lewis Kornhauser. 1979. "Bargaining in the Shadow of the Law: The Case of Divorce." *Yale Law Journal* 88:950.
- Moore, Sally F. 1973. "Law and Social Change: The Semi-Autonomous Social Field as an Appropriate Object of Study." *Law & Society Review* 7:719.

- Münc, Richard. 1980. "Über Parsons zu Weber: Von der Theorie der Rationalisierung zur Theorie der Interpenetration." *Zeitschrift für Soziologie* 9:18.
- _____. 1982. *Theorie des Handelns: Zur Rekonstruktion der Beiträge von Talcott Parsons, Emile Durkheim und Max Weber*. Frankfurt: Suhrkamp.
- Neumann, Franz. 1967. *Demokratische und autoritärer Staat*. Frankfurt: Europäische Verlagsanstalt.
- Nonet, Philippe, and Philip Selznick. 1978. *Law and Society in Transition*. New York: Harper & Row.
- Ophuels, Carl Friedrich. 1968. "Ist der Rechtspositivismus logisch möglich?" *Neue Juristische Wochenschrift* 21:1745.
- Parsons, Talcott, and Neil J. Smelser. 1956. *Economy and Society: A Study in the Integration of Economic and Social Theory*. London: Routledge.
- Pascal, Blaise. 1669. *Pensées*. Paris: Guillaume Despret.
- Peller, Gary. 1985. "The Metaphysics of American Law." *California Law Review* 73:1151.
- Placentinus. 1192. "Quaestiones de iuris subtilitatibus." In *Quaestiones de iuris subtilitatibus des Irenius*, ed. Hermann Fitting. Berlin: Guttentag, 1894.
- Prigogine, Ilya. "Time, Structure, and Fluctuations." *Science* 201:777.
- Posner, Richard. 1977. *Economic Analysis of Law*. Boston: Little Brown.
- Quine, Willard V. 1976. *The Ways of Paradox*. Cambridge: Harvard University Press.
- Raiser, Ludwig. 1963. "Rechtsschutz und Institutionenschutz im Privatrecht." In *Summum ius summa iniuria*. Tübingen: Mohr & Siebeck, 145.
- _____. 1971. *Die Zukunft des Privatrechts*. Berlin: de Gruyter.
- Resta, Eligio. 1984. *L'ambiguo diritto*. Milan: Franco Angeli.
- _____. 1985. "La struttura autopoietica del diritto moderno." *Democrazia e diritto* 5:59.
- Ronge, Volker, ed. 1980. *Am Staat vorbei*. Frankfurt: Campus.
- Ross, Alf. 1969. "On Self-Reference as a Puzzle in Constitutional Law." *Mind* 1:78.
- Santos, Boaventura de Sousa. 1987. "Law. A Map of Misreading: Toward a Postmodern Conception of Law." *Journal of Law and Society* 14:279.
- Schmid, Walter. 1983. *Zur sozialen Wirklichkeit des Vertrages*. Berlin: Duncker & Humblot.
- Schmidt, Eike. 1984. *Schuldrecht. Allgemeiner Teil*. 6th ed. Heidelberg: C. F. Müller.
- Schmidt, Jürgen. 1985. *Vertragsfreiheit und Schuldrechtsreform*. Berlin: Duncker & Humblot.
- Siber, Heinrich. 1931. *Schuldrecht*. Leipzig: Duncker.
- Simitis, Spiros. 1987. "Juridification of Labor Relations." In *Juridification of Social Spheres*, ed. G. Teubner. Berlin: de Gruyter, 113.

- _____, and Gisela Zenz, eds. 1975. *Familie und Familienrecht*. Frankfurt: Suhrkamp.
- Singer, Joseph W. 1984. "The Player and the Cards: Nihilism and Legal Theory." *Yale Law Journal* 94:1.
- Solum, Lawrence B. 1987. "On the Indeterminacy Crisis: Critiquing Critical Dogma." *Chicago Law Review* 54:462.
- Spencer-Brown, George. 1972. *The Laws of Form*. New York: Julian Press.
- _____. 1984. "Critical Legal Studies Symposium." *Stanford Law Review* 36:1.
- Streeck, Wolfgang, and Philippe Schmitter. 1985. "Community, Market, State—and Associations?" In *Private Interest Government: Beyond Market and State*, ed. W. Streeck and P. Schmitter. London: Sage, 1.
- Struck, Gerhard. 1982. "Ungleichzeitigkeit im Zivilrecht." *Demokratie und Recht* 10:259.
- Suber, Peter D. 1990. *The Paradox of Self-Amendment: A Study of Logic, Law, Omnipotence, and Change*. New York: Peter Lang.
- Teubner, Gunther. 1975. *Gegenseitige Vertragsuntreue*. Tübingen: Mohr & Siebeck.
- _____. 1979. "Die Gesellschaft des Bürgerlichen Rechts. Kommentierung zu §§ 705ff. BGB." In *Alternativkommentar zum Bürgerlichen Recht*, ed. R. Wassermann. Neuwied: Luchterhand, 718.
- _____. 1980. "Die Generalklausel von 'Treu und Glauben'. Kommentierung des § 242 BGB." In *Alternativkommentar zum Bürgerlichen Gesetzbuch*, ed. R. Wassermann. Neuwied: Luchterhand, 32.
- _____. 1982. "Die Geschäftsgrundlage als Konflikt zwischen Vertrag und gesellschaftlichen Teilsystemen." *Zeitschrift für das gesamte Handelsrecht und Wirtschaftsrecht* 146:625.
- _____. 1987a. "Juridification: Concepts, Aspects, Limits, Solutions." In *Juridification of Social Spheres*, ed. G. Teubner. Berlin: de Gruyter, 3.
- _____, ed. 1987b. *Juridification of Social Spheres. A Comparative Analysis in the Areas of Labor, Corporate, Antitrust and Social Welfare Law*. Berlin: de Gruyter.
- _____. 1988a. "Enterprise Corporatism: New Industrial Policy and the 'Essence' of the Legal Person." *The American Journal of Comparative Law* 36:401.
- _____. 1988b. "Hypercycle in Law and Organization." *European Yearbook in the Sociology of Law*, 43.
- _____. 1990. "Social Order from Legislative Noise? Autopoietic Closure as a Problem for Legal Regulation." In *State, Law, Economy as Autopoietic Systems*, ed. G. Teubner. and A. Febbraio. Milan: Giuffrè.
- Traxler, Franz, and Georg Vobruba. 1987. "Selbststeuerung als funktionales Äquivalent zum Recht? Zur Steuerungskapazität von neokorporatistischen Arrangements und reflexivem Recht." *Zeitschrift für Soziologie* 16:3.

- Trubek, David. 1986. "Where the Legal Action Is." In *Contract and Organization*, ed. T. Daintith and G. Teubner. Berlin: de Gruyter, 68.
- Tushnet, Mark V. 1983. "Following the Rules Laid Down: A Critique of Interpretivism and Neutral Principles." *Harvard Law Review* 96:781.
- Unger, Roberto Mangabeira. 1976. *Law in Modern Society*. New York: The Free Press.
- _____. 1983. "The Critical Legal Studies Movement." *Harvard Law Review* 96:563.
- Varela, Francisco J. 1975. "A Calculus for Self-Reference." *International Journal of General Systems* 2:5.
- Voigt, Rüdiger, ed. 1980. *Verrechtlichung*. Frankfurt a.M.: Athenäum.
- _____. 1984. *Abschied vom Recht?* Frankfurt: Suhrkamp.
- _____. 1986. *Recht als Instrument der Politik*. Opladen: Westdeutscher Verlag.
- Walz, Rainer. 1980. *Steuergerechtigkeit und Rechtsanwendung*. Heidelberg: Decker & Schenck.
- Weber, Max. 1978. *Economy and Society: An Outline of Interpretive Sociology*. Berkeley: University of California Press.
- Weiss, Manfred. 1971. *Die Theorie der richterlichen Entscheidungstätigkeit in den Vereinigten Staaten von Amerika*. Frankfurt: Athenäum.
- Wieacker, Franz. 1956. *Zur rechtstheoretischen Präzisierung des § 242 BGB*. Tübingen: Mohr & Siebeck.
- Wiethölter, Rudolf. 1977. "Begriffs-oder Interessenjurisprudenz." In *Festschrift für Gerhard Kegel*.
- _____. 1982a. "Entwicklung des Rechtsbegriffs." In *Rechtsformen der Verflechtung von Staat und Wirtschaft*, ed. V. Gessner and G. Winter. Opladen: Westdeutscher Verlag, 38.
- _____. 1982b. "Wissenschaftskritische Ausbildungsreform — Anspruch und Wirklichkeit." In *Einstufige Juristenausbildung in Bremen. Zehn Jahre Bremer Modell*, ed. R. Francke, D. Hart, R. Lautmann, and P. Thoss. Neuwied: Luchterhand, 7.
- _____. 1985. "Materialization and Proceduralization in Modern Law." In *Dilemmas of Law in the Welfare State*, ed. G. Teubner. Berlin: de Gruyter, 221.
- _____. 1986a. "Sanierungskonkurs der Juristenausbildung." *Kritische Vierteljahresschrift für Gesetzgebung und Rechtswissenschaft* 1:21.
- _____. 1986b. "Social Science Models in Economic Law." In *Contract and Organisation*, ed. T. C. Daintith and G. Teubner. Berlin: de Gruyter, 52.
- Willke, Helmut. 1983. *Entzauberung des Staates. Überlegungen zu einer sozietaalen Steuerungstheorie*. Königstein: Athenäum.
- _____. 1990. "Societal Guidance through Law." In *State, Law, Economy as Autopoietic Systems*, ed. G. Teubner and A. Febbraio. Milan: Giuffrè.

- Wolf, Ernst. 1982. "Kein Abschied vom BGB." *Zeitschrift für Rechtspolitik* 15:1.
- Wolff, Hans J. 1933. *Organschaft und juristische Person*. Berlin: Heymann.
- Wormell, C. P. 1958. "On the Paradoxes of Self-Reference." *Mind* 67:267.
- Zolo, Danilo. 1990. "The Epistemological Status of the Theory of Autopoiesis and Its Application to the Social Sciences." In *State, Law and Economy as Autopoietic Systems*, ed. G. Teubner and A. Febbraio. Milan: Giuffrè.