

SPECIAL ISSUE: THE LAW OF THE NETWORK SOCIETY
A TRIBUTE TO KARL-HEINZ LADEUR

“And if I by Beelzebub cast out Devils, ...”: An Essay on the Diabolics of Network Failure[†]

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A. Limits of the Network Society

It can only seem impolite to speak about network failure in the presence of Karl-Heinz Ladeur, who has been insisting that the law needs to change in order to address the transformation of the organizational society into the network society.¹ Alas, here I stand; I can do no other.

Hierarchy failure, market failure, yes – but, network failure? We have lived through painful experiences of hierarchy failure. One of the great innovations of the organizational society was to invent the hierarchy of decision making. The invention achieved tremendous gains in consistency of decisions, their security and impact. Yet, it came at a price. Concentrating external contacts to the pinnacle of the organization dangerously restricted the information flow between the organization and its environment: a restriction so severe that it could not be remedied by informal contacts on the organization’s base. The top of the organization lost sight of its environment; the organization tenaciously held on to its bureaucratic and rigid, internally produced constructions of its ‘outside’ and its observance of fixed strategies.²

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¹ A small sampling: Karl-Heinz Ladeur, *Was leistet der Netzwerkbegriff für die Verwaltungswissenschaft?* in GRUNDLAGEN DER VERWALTUNGSLEHRE (Veit Mehde & Ulrich Ramsauer eds., 2009); Karl-Heinz Ladeur, *Die Regulierung von Selbstregulierung und die Herausbildung einer „Logik der Netzwerke“* in DIE VERWALTUNG, *Beiheft 4*, 59; Karl-Heinz Ladeur, *Towards a Legal Concept of the Network in European Standard-Setting*, in EU COMMITTEES: SOCIAL REGULATION, LAW AND POLITICS, 151 (Christian Joerges & Ellen Vos eds., 1999); Karl-Heinz Ladeur, *Towards a Legal Theory of Supranationality: The Viability of the Network Concept*, 3 EUROPEAN LAW JOURNAL, 33 (1997).

² MATHIAS E. BRUN, PHILIPPE MASTRONARDI & KUNO SCHEDLER, *HIERARCHIE UND NETZWERKE*, (2005). The text simplifies the success story of networks and focuses only on hierarchy failure. A parallel story would be that of market failure as trigger for network building. See, in addition, Gunther Teubner, *Networks as Connected Contracts*, 23, 52 (2008), available at: <http://ssrn.com/abstract=1233545>.

The law carried a considerable degree of joint responsibility for this hierarchy failure. Ladeur criticized the rigidity with which the public law of the “organization society” had supported and immunized the hierarchical coordination mechanisms of immobile large scale organizations against change.³ Comparable developments had marked private law in a number of areas: the examples of collective labour law, corporate law and tort law illustrate the way in which the law had been fuelling the internal hierarchization and the external concentration towards the organization top. Organizational law, both public and private, must be seen as a major culprit in the production of hierarchy failure.⁴

The last thirty years have seen a network revolution that resulted in a thorough erosion of organizational hierarchies in both the private and the public sector. A dramatic decentralization of decision making took place. This was achieved by a high degree of operational autonomy which the newly emerging network organizations granted to their nodal points. Decentrally organized company groups and administrative agencies, inter-organizational networks as well as global networks of regulatory agencies now all share a formidably high level of environmental openness and adaptability. It is de-hierarchization that enabled the organization to multiply the observations of its environment, to increase its variety, to move the organization ‘closer to life’, as well as to augment its responsiveness and flexibility.⁵ In these successful alternative forms of coordination, planning no longer occurs centrally. Instead, different network nodes are able to observe different environments while being internally able to communicate the results of these observations and to concretize different steps of the decision making process one by one.⁶ Today, heterarchical networks are dominating hierarchical organizations to such a high degree, that the world society can safely be referred to as a network society.

Yet, in the background, the diabolics of network failure are lurking. The decentralization caused the devil of hierarchy to exit from the organizational body under aching and groaning. The uncertainties connected with the hierarchy’s environment were successfully exorcized and made way for an intensive exchange of multiple network nodes with their environments. In spite of these attempts, however, the smell of sulphur will not pass, because the devil was cast out only with the help of Beelzebub, substituting one threatening uncertainty for another. Whereas the devil represented uncertainty with

³ KARL-HEINZ LADEUR, POSTMODERNE RECHTSTHEORIE: SELBSTREFERENZ - SELBSTORGANISATION - PROZEDURALISIERUNG 177 (1992).

⁴ See also, TEUBNER, *supra* note 2, 36.

⁵ PETER LITTMANN & STEPHAN A. JANSEN, OSZILLODOX: VIRTUALISIERUNG - DIE PERMANENTE NEUERFINDUNG DER ORGANISATION 110 (2000).

⁶ NIKLAS LUHMANN, ORGANISATION UND ENTSCHEIDUNG 211 (2000).

regard to the environment, the name of Beelzebub stands for a not less threatening uncertainty regarding the inner coordination of the net's autonomized nodal points.

Following a first euphoric phase, the praxis of networks is now documented by a host of reports attesting to their confusing over-complexity. The failures are manifold: overwhelming environment information, coordination blockades, severe interface problems, permanent decision conflicts, a-symmetric power relations, opportunistic behaviour of nodes and centre, as well as negative externalities of net activities.⁷ While networks are considered to respond rather successfully to the contradictory challenges of the market environment, it is now their internal structure, which gives rise to nagging problems: »On the one hand, corporate networks aim at an enlarged and intensified economization of corporate activities, on the other, however, they endanger their functional and existential foundations, in particular the stability necessary for the relations among the network partners.»⁸ Networks tend to aggravate those very problems that they simultaneously work to resolve. Like other modern institutions, networks mobilize internal self-destructive dynamics. While it is true that they are able to translate productively contradictions in their environment internally into tension-laden, yet sustainable expectations, they reinforce their internal self-destructive potential by setting free internal tensions that result from their hybrid form and from internal conflicts of trust. Once you add to this mix outside pressures on speed, flexibility, cost cuts and competitiveness, network partners will begin to act opportunistically. At this point, network failure becomes seemingly inevitable. We have little reason to downplay the potential damage which results both for the inside of the network and for its third parties. The well-known phenomenon of 'organized irresponsibility' has found a prominent successor in 'reticular irresponsibility'.

Here again, the law is not innocent. It is a co-producer of network failure, as it fails to mitigate the threats of the new uncertainties. With regard to hierarchies, the law had notably reinforced hierarchy failure by dutifully supporting the centralization of decision making. With regard to networks, the law seems to play a different role: treating networks with great resistance against something so 'alien', it helps to facilitate network failure.

⁷ The sharpest criticism of network failure is Hartmut Hirsch-Kreinsen, *Unternehmensnetzwerke - revisited*, 31 *Zeitschrift für Soziologie* 106, 118 (2002); other issues are critically illuminated by VOLKER BOEHME-NESSLER, UNSCHARFES RECHT: ÜBERLEGUNGEN ZUR RELATIVIERUNG DES RECHTS IN DER DIGITALISIERTEN WELT 534 (2008); Johannes Weyer, *Zum Stand der Netzwerkforschung in den Sozialwissenschaften*, in *SOZIALE NETZWERKE: KONZEPTE UND METHODEN DER SOZIALWISSENSCHAFTLICHEN NETZWERKFORSCHUNG*, 1, 25 (Johannes Weyer ed., 2000); Dirk Messner, *Netzwerktheorien: Die Suche nach Ursachen und Auswegen aus der Krise staatlicher Steuerungsfähigkeit*, in *VERNETZT UND VERSTRICKT NICHT-REGIERUNGS-ORGANISATIONEN ALS GESELLSCHAFTLICHE PRODUKTIVKRAFT*, 26, 56 (Elmar Altvater et al. eds., 1997).

⁸ HIRSCH-KREINSEN, *supra* note 7, 118 "Einerseits zielen Unternehmensnetzwerke auf eine erweiterte und intensivierte Ökonomisierung der Unternehmensaktivitäten, andererseits gefährden sie dadurch ihre Funktions- und Existenzbedingungen, insbesondere die für die Beziehungen zwischen Netzwerkpartnern erforderliche Stabilität" [Translated from the German].

Lawyers tend to dismiss networks as merely 'one of numerous new term creations of the more recent legal debate that lay an unfounded claim to novelty'.⁹ A recently published volume of essays shows how public lawyers, when asked to develop a legal doctrine for networks, approach the network category with, indeed, great fear and apprehension.¹⁰ Only two authors succeed in this regard, while the rest indulge in dark metaphors. Similarly, in private law, antitrust law, in the name of freedom of competition, tends to illegalize cooperative forms of networks, which goes far beyond what would have been necessary. Here, the law attaches the stain of anti-competitive behaviour to many forms of cooperation among otherwise independent corporate actors, which either increases inadequately the autonomy of nodal points or again reinforces hierarchization.¹¹ We find a rigid limitation of conceptual choices in both contract and corporate law, where we are asked to opt for either contract or organization – *tertium non datur*. A new comparative study of different European legal systems concludes: „Both the multilateral and the linked models face serious limitations under current contract law, more in some legal systems than in others“ and opts for a European regulatory regime for contractual networks called „Principles of European Contractual Networks“. ¹² Although private law is supposed to support private autonomy, it comes empty-handed when asked to provide for an organizational framework to deal with networks. Corporate networks have by now assumed a solid place in regulated markets, ranging from energy to telecommunications markets, from bank networks to transport and air traffic networks. But the law's answer exhausts itself in the concept of bi-lateral contracts.¹³ Still, it gets worse: In recent conflicts arising over the passing-on of network advantages among members of a franchise chain it would have been adequate to redistribute kick-back payments that the franchisor had kept secret from its franchisees. However, both private law doctrine and the courts refuse stubbornly to develop new connexionistic concepts for the emerging patterns of action, attribution and liability, which would form an appropriate remedy against the networks'

⁹ "[E]ine von zahlreichen Begriffsschöpfungen der jüngeren rechtswissenschaftlichen Diskussion, die Neuheit beanspruchen, ohne sie zu belegen." [Translated from the German] Christoph Möllers, *Netzwerk als Kategorie des Organisationsrechts: Zur juristischen Beschreibung dezentraler Steuerung*, in NICHT-NORMATIVE STEUERUNG IN DEZENTRALEN SYSTEMEN, 285, 285 (Janbernd Oebbecke ed., 2005). For an overview of the reception of network concepts in public law: KARSTEN NOWROT, NETZWERKE IM TRANSNATIONALEN WIRTSCHAFTSRECHT UND RECHTSDOGMATIK, 15 (2007). See also, LUHMANN, *supra* note 6, 207.

¹⁰ NETZWERKE (Sigrid Boysen et al. eds., 2007). Also, MÖLLERS, *supra* note 9, 295, views the network concept as legally fruitless, but turns this fruitlessness into a positive.

¹¹ Only rarely is antitrust law criticised from this perspective: Jürgen Ensthaler & Dagmar Gesmann-Nuissl, *Virtuelle Unternehmen in der Praxis: Eine Herausforderung für das Zivil-, Gesellschafts- und Kartellrecht*, 55 BETRIEBSBERATER, 2265, 2269 (2000).

¹² Fabrizio Cafaggi, CONTRACTUAL NETWORKS AND THE SMALL BUSINESS ACT: TOWARDS EUROPEAN PRINCIPLES? 2008/15 EUI WORKING PAPER LAW 40, 43 (2008).

¹³ From a comparative law perspective, CAFAGGI, *supra* note 12, 52. Some legal systems, however, are more advanced than others.

chronic internal coordination weaknesses.¹⁴ Even the *avant-garde* among legal scholars that celebrates the socio-economic accomplishments of networks and invents finely crafted legal concepts of networks and network typologies fails to account for their deep-running coordination difficulties. While the legal concept of ‘basis of contract’ (*Geschäftsgrundlage*, developed by case law and subsequently codified in § 313 of the German Civil Code, Bürgerliches Gesetzbuch – BGB), never designed to address network connections, is drawn upon to establish some few connections between isolated bi-lateral relations¹⁵, the doctrine of network contracts resists any direct acknowledgement of reticular responsibility with new liability rules. There would just be no need!¹⁶ One is almost tempted to pen the second volume to a provocative book, to be entitled “The Private Law Against Society”.¹⁷

B. Opportunity Structure of Networks and Law’s conceptual readiness

In the face of network failure the present legal doctrine offers a false alternative by asking us to choose between a return to hierarchy and a move forward to decentralization. Result is a sterile oscillation between two equally unattractive poles: on the one hand the failure of environmental compatibility and that of internal coordination on the other. Devil or Beelzebub? Yet, there is no reason to despair. Waiting already in the background is another exorcist – should one call him Lucifer? – who promises another form of exorcism, this time targeting network failure. Without a detour via the top of the organization, the new bringer of light suggests drastically increasing internal irritability. In order to overcome network failure this approach aims at developing organizational forms and responsibility rules for networks that will hold on to the advantages of the decentralized organization of nodes while decisively strengthening their mutual coordination.¹⁸ This will drastically

¹⁴ *Apollo-Optik: Pflicht des Franchisegebers zur Weitergabe von Differenzrabatten an Franchisenehmer* 43 BETRIEBSBERATER (BGH BB) 2254 (2003); *Hertz* BGH BB 1071 (2006). Different, however, is B9 – 149/04 *Praktiker Baumärkte GmbH* 2006 BKartA. Pursuing the previous line of argument, again: *Praktiker OLG Düsseldorf* BB 2007, 738.

¹⁵ Network contracts: MATHIAS ROHE, *NETZVERTRÄGE: RECHTSPROBLEME KOMPLEXER VERTRAGSVERBINDUNGEN* (1998); ‘Basis of contract’: Stefan Grundmann, *Vertragsnetz und Wegfall der Geschäftsgrundlage*, in *FESTSCHRIFT FÜR HARM PETER WESTERMANN*, 227, 232 (Lutz Aderhold et al. eds., 2008); Stefan Grundmann, *Die Dogmatik der Vertragsnetze*, 207 *ARCHIV FÜR DIE CIVILISTISCHE PRAXIS*, 718, 742 (2007).

¹⁶ Marina Wellenhofer, *Third Party Effects of Bilateral Contracts within the Network*, in *CONTRACTUAL NETWORKS: LEGAL ISSUES OF MULTILATERAL COOPERATION*, 119 (Marc Amstutz & Gunther Teubner eds., 2009) (with concessions regarding tort law); FRANK BAYREUTHER, *WIRTSCHAFTLICH-EXISTENTIELL ABHÄNGIGE UNTERNEHMEN IM KONZERN-, KARTELL- UND ARBEITSRECHT*, 399 (2001); ROHE, *supra* note 15, 418.

¹⁷ The first volume is entitled “The State Against Society”: KARL-HEINZ LADEUR, *DER STAAT GEGEN DIE GESELLSCHAFT: ZUR VERTEIDIGUNG DER RATIONALITÄT DER “PRIVATRECHTSGESELLSCHAFT* (2006).

¹⁸ RAINER KULMS, *SCHULDRECHTLICHE ORGANISATIONSVERTRÄGE IN DER UNTERNEHMENSKOOPERATION*, 186, 227 (2000).

reduce the privity principle for all those contracts connected by the network. Furthermore, it will introduce different legal rules for multilateral contracts with regard to their formation, their validity, their defaults, and their termination. In addition, it will facilitate quasi-corporate governance structures in multilateral contracts identifying the legal conditions under which contractual networks will have to be treated as collective actors. Finally, it will increase individual and collective liability for faulty coordination vis-à-vis suppliers and buyers.¹⁹

Social scientists indeed display a certain optimism when it comes to casting out Beelzebub himself.²⁰ With a Luciferian gestic, they hint at the inner potential of networks to transform external contradictions into merely internal tensions and to deal with these tensions productively through mutual observations of nodes – and all of this without resorting to central-hierarchical organizations. They insist, however, that this would only be possible if there were sufficient support from the outside: „an institutional environment where fiduciary relationships can arise and also a high level of trust that can allow the development of shared innovative knowledge.”²¹ The primary candidates who could give this support are organizational culture, governmental economic policies, economic associations, and management consultancies, but also the law is to play a role. The question for law is:²² Which norms can contribute to setting free from its blockades the integration potential which exists in what Niklas Luhmann calls the ‘heterarchical, connexionistic and network-like combination of communications’?²³ Which remedies does the law hold in stock with regard to the Achilles heel of networks, namely their inner coordination weakness? What needs to be uncovered here is a latent correspondence relation between social norms and law. In Ladeur’s words, it would be the mandate of a ‘social epistemology of law’ in order to provide for a ‘management of coherence between legal and extra-legal rule-boundedness’ of networks.²⁴ This program has been formulated

¹⁹ CAFAGGI, *supra* note 12, 6.

²⁰ ARNOLD WINDELER, UNTERNEHMUNGSNETZWERKE: KONSTITUTION UND STRUKTURATION, 336 (2001); Jörg Sydow, *Management von Netzwerkorganisationen: Zum Stand der Forschung*, in MANAGEMENT VON NETZWERKORGANISATIONEN, 279, 299 (Jörg Sydow ed., 1999); Mark A. Lemley & David McGowan, *Legal Implications of Network Economic Effects*, 86 CALIFORNIA LAW REVIEW 479, 198 (1998); Elmar Gerum, Wieland Achenbach & Frank Opelt, *Zur Regulierung der Binnenbeziehungen von Unternehmensnetzwerken: Ein Problemaufriss*, 67 ZEITSCHRIFT FÜHRUNG UND ORGANISATION 266, 267 (1998).

²¹ CAFAGGI, *supra* note 12, 3.

²² Lars Viellechner, *Können Netzwerke die Demokratie ersetzen? Zur Legitimation der Regelbildung im Globalisierungsprozess*, in NETZWERKE, 36, 43 (Sigrid Boysen et al., eds., 2007), poses the question for public law and provides preliminary answers.

²³ Niklas Luhmann, *The State of the Political System*, in NIKLAS LUHMANN, ESSAYS ON SELF-REFERENCE, 165 (1990).

²⁴ Also, INO AUGSBERG & KARL-HEINZ LADEUR, DIE FUNKTION DER MENSCHENWÜRDE IM VERFASSUNGSSTAAT: HUMANGENETIK - NEUROWISSENSCHAFT - MEDIEN, 164 (2008); Karl-Heinz Ladeur, *Die rechtswissenschaftliche Methodendiskussion und*

as research agenda of a double institutional analysis, as it was developed by Philip Selznick.²⁵ Pursuing an institutional analysis of networks, the ensuing questions is: Where can the 'opportunity structure' be found, the social potential for an increasingly non-hierarchical coordination within the net? Pursuing an institutional analysis of the law, the question would be: is there a 'conceptual readiness' of the law which would enable it to set this potential free by facilitative rules? This agenda is close to what Ladeur has frequently been pursuing, be it in the field of internet governance, media networks or virtual auctions, leading him to a normative program of a 'network adequate law'.²⁶

Which, now, are the components of networks that, by working against the centrifugal tendencies of networks, are able to support their internal coordination? And, by which doctrinal constructs could the law respond and stabilize these components? In spite of the strong scepticism among lawyers who maintain that the term network does not lend itself to legal doctrinal use, this should reveal a close correspondence between social structures and legal rules that is capable of addressing network failure.

I. Integration Potential I: "Spontaneous Orders" - Local contacts, Overarching Binding Connections

We do not have Hayek's spontaneous orders in mind, which are able to generate distributed knowledge on the basis of market-competitive acts without central planning. We are concerned here not with competitive markets, but instead with cooperative relations beyond the misleading alternative of contract vs. organization. Networks are spontaneous orders *sui generis*, whose cooperative relations are in fact not dispersing but concentrating the sought knowledge.²⁷ Net relations create commitments and social bonds out of cooperative actions which connect recursively with each other. Those social ties form the glue that holds networks together - the strength of weak ties²⁸ - and that work effectively against the centrifugal tendencies of autonomized profit centres - as long as these ties are sufficiently supported by social and legal institutions.

die Bewältigung des gesellschaftlichen Wandels, 64 RABELS ZEITSCHRIFT FÜR AUSLÄNDISCHES UND INTERNATIONALES PRIVATRECHT 60, 78 (2000).

²⁵ PHILIP SELZNICK, *THE MORAL COMMONWEALTH: SOCIAL THEORY AND THE PROMISE OF COMMUNITY* 229 (1992).

²⁶ Karl-Heinz Ladeur, *eBay-Bewertungssystem und staatlicher Rechtsschutz von Persönlichkeitsrechten*, KOMMUNIKATION UND RECHT, 85 (2007); especially forceful with regard to transnational networks is Thomas Vesting, *The Network Economy as a Challenge to Create New Public Law (beyond the State)*, in PUBLIC GOVERNANCE IN THE AGE OF GLOBALIZATION, 247 (Karl-Heinz Ladeur ed., 2004).

²⁷ Cordula Heldt, *International Relations and Semi-spontaneous Order: The Case of Franchising and Construction Contracts*, in CONTRACTUAL NETWORKS: LEGAL ISSUES OF MULTILATERAL COOPERATION, 137, 144 (Marc Amstutz & Gunther Teubner eds., 2006); TEUBNER, *supra* note 2, 79; Robert Gordon, *Hayek and Cooter on Custom and Reason*, 23 SOUTHWESTERN UNIVERSITY LAW REVIEW, 453 (1994).

²⁸ Mark S. Granovetter, *The Strength of Weak Ties*, 78 AMERICAN JOURNAL OF SOCIOLOGY, 1360 (1973).

But, has the law the conceptual readiness to institutionalize such binding arrangements? This is indeed problematic for the dominant contract paradigm, since the modern rational binding institutions, consensual contract and hierarchical organization, have emerged as winners, casting the spell of illegality over old binding forms as anti-competitive, clientelistic or even corrupt.²⁹

Yet, private law has undergone a set of promising developments towards the bindingness of networks without contract that one should forcefully pursue. The point of departure is Rudolf von Jhering's good old *culpa in contrahendo* that served to establish in particular cases legal bonds precisely without a contract, without a promise, without an act of consensus, but merely on the basis of social coordination. This was achieved with the help of a 'pre-contractual obligation' caused by the 'coming contract'.³⁰ In the meantime we can, however, observe a considerable expansion of *culpa in contrahendo* that was originally thought to apply only to simple, bi-lateral relations. The concept has been constructively abused by applying it to multi-lateral networks without contract. So far, this development has largely gone unnoticed. Setting side by side lines of case law that would otherwise evolve in relative ignorance from each other, we can observe rather exotic legal regimes whereby the merely social network relations between several bi-lateral contracts have served as the ground on which to establish greater degrees of liability. The cases in question here include the so-called prospect liability in grey security markets (*Prospekthaftung*), trustee liability in complex transactions (*Sachwalterhaftung*) and, in parallel fashion to these constellations even if not built directly on the concept of the *culpa in contrahendo*, the third party liability of experts (*Expertendritthaftung*), bank liability in transfer chains (*Überweisungsketten*) as well as connected contracts in a great variety of contexts (*Vertragsverbindungen*).³¹ Networks have also found their way into the European arena: the rescindment of a contract will have an impact on all those contracts connected to it, even if the agreement among the parties sought to rule out the connection.³² All these isolated legal institutes share the feature that they create legally binding obligations among several mutually connected actors, although their basis is not a specific agreement but merely the factual behaviour through social contact.

²⁹ In addition, see, Simon Deakin, *The Return of the Guild? Network Relations in Historical Perspective*, in CONTRACTUAL NETWORKS: LEGAL ISSUES OF MULTILATERAL COOPERATION 53, 58 (Marc Amstutz & Gunther Teubner eds., 2009).

³⁰ Rudolf von Jhering, *Culpa in contrahendo oder Schadensersatz bei nichtigen oder nicht zur Perfection gelangten Verträgen*, 4 JAHRBÜCHER FÜR DIE DOGMATIK DES HEUTIGEN RÖMISCHEN UND DEUTSCHEN PRIVATRECHTS, 1 (1861).

³¹ On the present stage of development, Münchner Kommentar BGB, 5th ed. 2007, § 311, nr. 185. (Prospectus liability); § 311, nr. 244. (Trustee); § 328, nr. 150. (Expert third party liability); § 328, nr. 157 (Bank transfer); § 358 nr. 3. (Contract connections).

³² ACQUIS GROUP, PRINCIPLES OF THE EXISTING EC CONTRACT LAW – CONTRACT I, 186 (2007).

The very vagueness, however, of the term 'social contact' which is supposed to create legally binding obligations has proven to be the greatest obstacle in the development of network adequate rules. Obviously, not every social contact can be assumed to be able to create those connexionistic social ties or even the legally binding obligations that we are interested in here.³³ The same is true for the category of 'trust', which is too vague to guide the transition from social ties to legal obligations. It is at this point that the sociological network theory can provide some helpful suggestions: typical net connections can only be assumed when the double condition is met, namely first that the emerging social relation depends on expectations of generalizable reciprocity and, secondly, that the entry into the larger network occurs on the basis of local, bi-lateral contacts.³⁴ This condition of 'and-so-forth' of generalizable reciprocity connections, modelled after the idea of *amici degli amici degli amici*, is the prerequisite for the construction of modern, multi-lateral non-contractual transaction sequences that private lawyers at first tended to equip only with duties to protect, before eventually moving to recognize them as grounds for core obligations by allowing for compensatory claims when such core obligations had been defaulted on. Following the 2002 reform of the German law of obligations, the newly created § 311 III BGB establishes a contractual obligation without contract, the new § 358 III BGB stipulates spontaneously connected contracts as well as, finally, § 676b III and § 676e BGB allow for a piercing of the veil in a transfer chain which makes the intermediate bank liable. These rules can altogether be seen as legislative traces of recognizing networks without contract. They represent a subsequent step in a long-term evolution during which judges had long begun looking for adequate responses to the pressure of socio-economic developments. The task is now to continue on this avenue and to integrate other types of transactions into such an emerging law of networks, such as sponsorship contracts, prospectus contracts, project related expertise contracts, project contracts, engineering contracts, transportation nets, banking networks and credit card systems. All these examples remain still to be belaboured in a discussion that has hitherto been limiting itself to financed sales, franchising, just-in-time and virtual enterprises.³⁵ For the time being, however, private law doctrine remains cautious: even the most daring networkers in this field hold a particular legal regime for networks to be 'decisionist', and regard it be either 'in conflict with existing law' or, at best, to be 'visionary'.³⁶ And we know what happens to visionaries.

³³ Cf. MünchKommBGB, 5th ed. 2007, § 311, nr. 68.

³⁴ On generalised reciprocity: CHRISTIAN STEGBAUER, REZIPROZITÄT: EINFÜHRUNG IN SOZIALE FORMEN DER GEGENSEITIGKEIT, 79 (2002); Alwin W. Gouldner, *The Norm of Reciprocity: A Preliminary Statement*, 25 AMERICAN SOCIOLOGICAL REVIEW 161, 176 (1960), speaks of the "starting mechanism". On iterative network building, Michael Bommes & Veronika Tacke, *Netzwerke in der Gesellschaft der Gesellschaft. Funktionen und Folgen einer doppelten Begriffsverwendung*, 13 SOZIALE SYSTEME 9, 14 (2007); Rudolf Stichweh, *Adresse und Lokalisierung in einem globalen Kommunikationssystem*, in RUDOLF STICHWEH, DIE WELTGESELLSCHAFT: SOZIOLOGISCHE ANALYSEN, 220 (2000).

³⁵ On franchising, Just-in-time and virtual concerns in detail, TEUBNER, *supra* note 2, 60.

³⁶ GRUNDMANN (2008), *supra* note 15, 228; (2007) *supra* note 15, 724.

II. Integration Potential II: "Small Worlds" – Dualism of Strict and Loose Coupling

Sociologists have identified a further peculiarity of networks that deserves the law's attention. The most important advantages of networks do not come to bear merely on connections between individuals. What it takes are connections between social relations: dyads, contract relations, organizations, epistemic communities, functional systems.³⁷ It is only the duality of dense clusters and loose connections among them that brings about the well-known network intelligence, because the duality itself acts as the competitive unit which combines the clout of organized special units and their coordination. Networks as "highly improbable reproduction relations of heterogeneous elements" are characterized by the unlikelihood of closed systems opening towards each other.³⁸ Particular examples of such networks, whose success depends on the simultaneity of strict internal and loose external couplings, are connected contracts, European comitologies as networks of national bureaucracies, inter-organizational networks, networks of epistemic communities and networks of research institutions, firms, and public administrative agencies.³⁹ A recent study aptly refers to such cases as „semi-spontaneous orders“, because the foundation of the spontaneous networks lies, paradoxically, in the constructivist orders resting on rational planning abhorred by Hayek – relational contract and formal organization.⁴⁰

This dualism is the reason why Viellechner can claim that the vague notion of network can be used as a legal term only when it is realized as a connection of bilateral contracts – and, as must be added, as a connection of formal organizations.⁴¹ The law will have to take this dualism of strong and weak connections into account, in more than one way.

A first impact of the dualism goes to the legal formation of network connections: Are there strict requirements necessary for the conclusion of a multilateral contract among all the participants? Or are only minimal requirements sufficient to render the factual connections between contracts legally binding? Some scholars try to construct a "network contract" and base it on the traditional law of agency with mutual authorizations between all participants. When a new member enters the network, he is supposed to strike a multilateral agreement with all the other members who in their turn are supposed to have given their authorization in advance. This somewhat monstrous construct disregards the

³⁷ MARC BUCHANAN, *NEXUS: SMALL WORLDS AND THE GROUNDBREAKING SCIENCE OF NETWORKS* (2002); DUNCAN WATTS, *SMALL WORLDS: THE DYNAMICS OF NETWORKS BETWEEN ORDER AND RANDOMNESS* (1999).

³⁸ DIRK BAECKER, *ORGANISATION UND GESELLSCHAFT*, 14 (2002).

³⁹ Michelle Everson & Christian Joerges, *Re-Conceptualising Europeanisation as a Public Law of Collisions: Comitology, Agencies and an Interactive Public Adjudication*, in *EU ADMINISTRATIVE GOVERNANCE 512* (Herwig Hofmann & Alexander Türk eds., 2006); LADEUR (2009), *supra* note 1.

⁴⁰ HELDT, *supra* note 27.

⁴¹ VIELLECHNER, *supra* note 22, 43.

social peculiarities of networks and therefore impose greatly exaggerated requirements on the legal formation of networks.⁴² Other scholars ask for an additional “coupling agreement”, or for a complete multilateral contract, or for a multilateral *synallagma*.⁴³ They commit the same mistake. The unfortunate case law regarding “junk real property” has been insensitive to interconnections between the participants to the project. More specifically, the courts raised the requirements for cooperation between the financing bank, the financial advisers and the operators of the real estate, to such a high degree that made it easy for banks to avoid responsibility for their scandalous finance practices.⁴⁴

Moreover, the dualism of strict and loose couplings makes it necessary to distinguish different types of legal obligations within the network. Mutual performance obligations within the bilateral contracts must be exactly specified; obligations of cooperation and information in their interconnectedness can be unspecified. This distinction is well-known from the field of relational contracts and can be transposed to networks. By contrast, the allocation of risk and of compensation duties between network partners creates novel problems. Being situated in the loosely coupled domain of interconnections, these are implied obligations with an initially unspecified and context-sensitive character. Nonetheless, the Federal Court of Justice, in its opinions mentioned before,⁴⁵ applied to them the strict standards for express contractual obligations. In a franchise relation the court required that a franchisor’s obligation to transfer a benefit to the franchisees, needs to be expressly laid down in the standard terms, e.g. as duty to support. However, when a firm changes its standard terms and abolishes or even excludes such duties to support, the court gets cold feet and refuses to identify an implied duty to transfer in the structure of the franchise relation itself. Scholars, of course, applaud. Only the Federal Cartel Office applies parallel structural reasoning from competition law and establishes a duty of transfer.⁴⁶

⁴² Afterwards, all kinds of fictions are necessary to alleviate the absurd consequences; e.g. ROHE, *supra* note 15, 85, 176, 356.

⁴³ Coupling contract: Walter Schlupe, *Zusammengesetzte Verträge: Vertragsverbindung oder Vertragsverwirrung*, in Festschrift für Heinz Rey 285, 304 (Heinrich Honsell et al., eds., 2003); multilateral contract: Max Vollkommer, *Der Schutz des Käufers beim B-Geschäft des 'finanzierten Abzahlungskaufs*, in Festschrift für Karl Larenz, 703, 711 (Gotthard Paulus ed., 1973); trilateral *synallagma*: Peter W. Heermann, *The Status of Multilateral Synallagma in the Law of Connected Contracts*, in CONTRACTUAL NETWORKS: LEGAL ISSUES OF MULTILATERAL COOPERATION 103, 106 (Marc Amstutz & Gunther Teubner eds., 2009).

⁴⁴ See the brilliant criticism by RAINER MARIA KIESOW, *KREDITE IN DER RISIKOGESELLSCHAFT* (2005).

⁴⁵ *Apollo-Optik: Pflicht des Franchisegebers zur Weitergabe von Differenzrabatten an Franchisenehmer* 43 BGH BB 2254 (2003); BGH BB 2006, 1071 – Hertz. For pungent criticism, see Reinhard Böhner, *Profit Sharing within the Network: Duty to Transfer Network Benefits*, in CONTRACTUAL NETWORKS: LEGAL ISSUES OF MULTILATERAL COOPERATION, 153 (Marc Amstutz & Gunther Teubner eds., 2009).

⁴⁶ B9 – 149/04 *Praktiker Baumärkte GmbH* 2006 BKartA. In accordance with the previous jurisprudence see again *Praktiker OLG Düsseldorf* BB 2007, 738.

Finally, the small worlds with their dualism of strict and loose coupling turn up for the question whether the law should stipulate a genuine network purpose that is legally binding for the participants.⁴⁷ The doctrine wants to avoid having to qualify networks as corporate structures, so it gets lost in artificial distinctions between a common purpose of corporate entities and a merely unitary purpose of networks. (If common, how not unitary? And *vice versa*.) Or, the doctrine rejects a legally binding purpose for networks altogether and merely speaks of economic goals. Instead, private law should acknowledge that the oscillation between strict and loose coupling cannot be overcome and produces a specific legal network purpose. Networks are multilateral contracts, and yet they act like formal organizations. In the contractual realm, a self-interested focus on the exchange is legitimate. In the realm of interconnectedness, by contrast, an exclusive orientation towards the common purpose is required. In corporate networks, individual corporations are expected to rigorously pursue their own individual interests and yet to comply with the contradictory simultaneous requirements of cooperation and pursuit of a common purpose.⁴⁸ This twofold orientation of network participants forces the law to recognize an independent network orientation, which expresses the equal coexistence of common and individual orientation in the network. Only such a legal recognition of the network purpose will support the integration of decentralized action within the network.

III. Integration Potential III: Iterativity of Network Decisions

Here, the smell of sulphur becomes especially penetrating. The result of the exorcism is a specific iterativity of network acts, but while network failure is extorted, one, Beelzebubian, uncertainty is cast out by another, a Luciferian one. When conditions of hierarchy – collectively binding decisions, centralized competences and hierarchically ordered criteria – fail, the reaction is an increased reciprocal observation of nodes within the network.⁴⁹ The authoritative final decision by the collective is replaced with a series of iterative decisions in a multiplicity of observer positions, which mutually reconstruct, attach, influence, constrain, control each other and provoke each other to innovate, but do not result in one collective decision on substantive norms. Instead of uniformity at the top of the hierarchy, we find recursivity of decisions within the network. Such an observers' network legitimates itself, as Ladeur formulates in perhaps his strongest provocation towards juridical thinking in hierarchies, "through a practice of experimentation, accessible neither for the individuals nor for the state."⁵⁰ Now, transparency, reciprocal accessibility,

⁴⁷ See TEUBNER, *supra* note 2, 41, with further references.

⁴⁸ Similarly, Christian Kirchner, *Horizontale japanische Unternehmensgruppen (keiretsu) im deutschen Konzernrecht*, in LIBER AMICORUM RICHARD M. BUXBAUM, 39, 351 (Theodor Baums et al. eds., 2000).

⁴⁹ LADEUR, *supra* note 3, 80.

⁵⁰ KARL-HEINZ LADEUR, NEGATIVE FREIHEITSRECHTE UND GESELLSCHAFTLICHE SELBSTORGANISATION 82 (2000) ("eine Praxis der Erprobung, die weder den Individuen noch dem Staat zugänglich [ist]").

and generalized reciprocity of network nodes are the top priority; participation and deliberation acquire new significance. At the same time, it becomes more and more apparent that Lucifer also obeys the logic of exorcism and merely replaces one uncertainty with another. We will have to return to this point.

From a legal perspective, the network iterativity is relevant in three dimensions. In the temporal dimension, legal acts are serialized. In the substantive dimension, obligations are concretized in light of the specific situation. In the social dimension, net knots reciprocally observe each other. What is especially important here is that legal obligations are temporalized through framework agreements and later step-by-step concretization. The problem of uncertainty is resolved so that the obligations are specified over time.⁵¹ At the beginning, nothing is really agreed upon in the framework agreement. The parties merely declare themselves to be bound to their new status. Now they are network participants. The result is the paradox of nonbinding obligation, the paradox of valid but not binding legal norms, the paradox of formally binding law without substantive obligations.⁵² Only over time do specific obligations emerge, step by step, against the background of the network's own history. They are aptly called "second-order contracts". They stabilize expectations in the expectation that expectations will change.⁵³ Every external change, but also every internal net event, changes the expectations, which then create respectively different obligations on the basis of the legally binding network among the parties. Such unspecified obligations that can be specified only after a certain period of time were not unknown in classical contract law, but only as secondary obligations opposed to the primary obligation that was expressly defined at the contractual conclusion. In the network, by contrast, primary obligations are defined by this type of deferred determination.

Substantively, the arrangement is of remarkably experimental nature. Vagueness and generality at the first stage are followed by an experimental learning process towards iterative substantive concretization. The iterativity of decisions is characterized by multiple perspectives of the nodes which produce a "collective inquiry" as a "differential order which has no unity, no centre, no beginning, but is nothing but the provisional result of experimenting with self-produced constraints"⁵⁴ The network partners are legally obliged

⁵¹ On framework agreements as a strategy to reduce uncertainty, see NIELS AKERSTROM ANDERSEN, PARTNERSHIPS: MACHINES OF POSSIBILITY 97 (2008).

⁵² Matthias Goldmann, *Der Widerspenstigen Zähmung, oder: Netzwerke dogmatisch gedacht*, in NETZWERKE, 225, 242 (Sigird Boysen et al. eds., 2007).

⁵³ Stefanos Mouzas & David Ford, *Constitutions of Networks*, INDUSTRIAL MARKETING MANAGEMENT (2009); ANDERSEN, *supra* note 51, 97.

⁵⁴ LADEUR, *supra* note 50, 167. See also, KARL-HEINZ LADEUR, DAS UMWELTRECHT DER WISSENSGESELLSCHAFT: VON DER GEFAHRENABWEHR ZUM RISIKOMANAGEMENT 22 (1995).

not to a certain conduct or to clearly defined goals but instead to an experimental situation. The network binds them neither to reliable conditional programs nor to purposive programs for which they would have to choose means depending on the situation, but instead to experimental programs void of substantive content and defined only by the multiplicity of perspectives.

And in its social dimension, iterativity transforms the one binding collective decision – either the central decision, or the conclusion of contract that binds all participants – into a multitude of individual nodes' decisions and their reciprocal-recursive observation. Here, a practice of coordinating different organizational units, familiar from organization theory, is taken to the extreme: Uncertainty is absorbed through reciprocal acceptance of decisions by decentralized entities. This absorption of uncertainty is characterized by a peculiar rule-exception relation. The rule is: Decentralized entities accept the decisions of other decentralized entities without reappraising their premises, and build their own consecutive decisions on these decisions without further ado. The exception is: They can question or even deviate from the prior decision only as a consequence from specific burdens of information and justification. In principle, this decision modus is also known from hierarchical situations, as exceptional revocation. What is different is the "directive correlation", the way in which the decision's dependence is directed both horizontally and hierarchically upwards.⁵⁵ It is reminiscent of the principle of "default deference" in a non-hierarchical court system, in which neither binding precedent nor a merely persuasive force of well-founded arguments governs, but instead the principle that the decisions taken by the other court are binding, and the exception of sharp requirements for justification of overruling.⁵⁶

Again, it is obvious how this way of dealing with uncertainty creates new uncertainty. Lucifer rears his head. Yet, he compensates quite well the internal weakness of coordination. "That part of that power which would the evil ever do" like Mephistopheles from Goethe's *Faust*, must finally do the good. Indeed, new legal rules are inserted into the networks to compensate for the compensation. The duty to renegotiate thrives because it is made exactly for such a temporal iteration.⁵⁷ Through proceduralization, it manages to defuse the paradox of nonbinding obligation by the mere lapse of time. Opportunistic behavior that could be expected is countered with the threat of judicial control of duties to negotiate in good faith. Even stronger is the effect of downstream contractual governance mechanisms, expert assessment procedures internal to the network, arbitration and other dispute resolution mechanisms. Here, the interaction between the three dimensions is

⁵⁵ In addition, LUHMANN, *supra* note 6, 207.

⁵⁶ Roger P. Alford, *Federal Courts, International Tribunals, and the Continuum of Deference*, 43 VIRGINIA JOURNAL OF INTERNATIONAL LAW 675, 792 (2003).

⁵⁷ Cf. MünchKommBGB/Roth, 5th ed. 2007, § 241, nr. 60.

particularly obvious. Network obligations simply cannot be formulated *ex ante*. Only the iteration of both a multitude of external events and a multitude of internal decisions makes it possible to define the specific obligations for each individual participant. If necessary, they can be determined *ex post* by conflict resolution institutions internal to the network or, in the worst case, by courts. Note that the real effect is not the concrete regulation of an individual issue *ex post* by an arbitrator or a court, but the institutional arrangement of iterativity itself, which creates, step by step, legally binding expectations for the concrete situation. These consolidated expectations, not the legal sanction in the individual case, are how the law strengthens the potential for coordination within the network.

IV. Integration Potential IV: Collective Orientation Without a Collective

Whether networks take on a collective character is hotly debated by social scientists. Do the networks themselves operate as collective actors or is it only the network nodes? Positions range from simple multi-polar connectivity between the nodes to a full personification of the network organization.⁵⁸ That should not encourage the law to make juridical persons out of networks. And yet one of the most important integration potentials seems to hide in a legally-supported collectivization of networks which, however, remain at the same time highly individualistic. Thus, it is necessary to uncover the *sui generis* collectivity of networks, if it is supposed to counteract the centrifugal tendencies.

Recently, Ladeur has highlighted a peculiarity of networks, which has almost disappeared from sociological and economic theorizing. He spoke of the “character of the network as a trans-subjective evolutionary structure”.⁵⁹ Contrary to what is often said, the connectivity of all with all is not what is crucial – this is too static. What counts is the dynamic process of permanent changes driven by many nodes at the same time, which unavoidably but unpredictably have an effect on the whole. The trans-subjective collective potential lies in this dynamic. It forces us to destroy the usual connection between collective action capacity and the unity of representation. The metaphor of the “many-headed Hydra”, where unity of action comes not from a single centre of will-formation but is produced by a multiplicity of simultaneous decisions, makes clear where the peculiarity of the network collectivity lies.⁶⁰ In fact, there are networks that are able to act independently as a whole:

⁵⁸ Against their collective nature: Veronika Tacke, *Netzwerk und Adresse*, 6 *SOZIALE SYSTEME*, 291, 317 (2000); Eckard Kämper & Johannes F.K. Schmidt, *Netzwerke als strukturelle Kopplung*, in *SOZIALE NETZWERKE*, 211, 219 (Johannes Weyer ed., 1999). In favour of their collective nature: MANUEL CASTELLS, *THE RISE OF THE NETWORK SOCIETY*, 381 (2000); Jörg Sydow & Arnold Windeler, *Organizing and Evaluating Interfirm Networks*, 9 *ORGANIZATION SCIENCE. SPECIAL ISSUE*, 265, 265 (1998). LUHMANN, *supra* note 6, 408, distinguishes various situations in which networks take on a collective character.

⁵⁹ LADEUR (2009) *supra* note 1, Section I. 3.

⁶⁰ Gunther Teubner, *The Many-Headed Hydra: Networks as Higher-Order Collective Actors*, in *CORPORATE CONTROL AND ACCOUNTABILITY*, 41 (Joseph McCahery et al. eds., 1993).

joint ventures, franchising systems, just-in-time networks.⁶¹ The network acts itself in such cases as a collective actor in the political system, in the economy and in other social contexts. Internal and external processes of social attribution create an independent unity of action - but not as a single actor. Instead they create a “poly-corporate actor”, an until now unfamiliar social organization.⁶² Without a centre, without leadership, without a unified management, and without one single authorized representation, the network acts exclusively through its many individual nodes which do not cease to be collective actors themselves. They operate simultaneously in their own name and in the name of the network. They produce – and this is decisive for our enquiry for internal co-ordination – with each individual action collective commitments for the whole network.⁶³ This burdens the nodes with enormous responsibility and forces them to take account not only of their own interest but that of the collective in each calculation and decision. These are the social effects of network commitment which need to be reinforced by legal rules. In such a confusing fragmentation of the one collective into many single node decisions and in their reverse connections to the whole, one finds the potential for integration, which, however – possibly due to its strange fragmentation – has not adequately been taken up by the law.

To operate here with the traditional full-fledged juridical person would be counter-productive. This is the category mistake of the many doctrinal efforts that try to capture networks with concepts of corporate law.⁶⁴ To be appropriate for networks, the law would have to develop more subtle, and in particular, ambivalent concepts of collectivity. That begins already with “net interest” – an independent legal concept that characterizes the collective interest of the network,⁶⁵ which is different from the concept of “interest of the corporation”. Amstutz has developed a law of contract collisions for these contractual networks which contains meta-rules for conflicts between bi-lateral contracts, the vanishing point of which is the “functional capability” of the contractual network.⁶⁶ This concept should not be misunderstood as instrumental. The formula of a “trans-subjective evolutionary structure” indicates instead a direction. The law should not reduce the interest of the network to a goal-means relationship; nor should it compare it to the interest in continued existence without highlighting the ability to change, ability to learn

⁶¹ The sheer richness of variety is impressive. It ranges from simple connecting structures (via) to networking processes (via) to networks as social systems with their own boundaries and own till now recursive usable history to networks as collective actors. Cf. LUHMANN, *supra*, note 6, 408.

⁶² Ulrich Bälz, *Einheit und Vielheit in Konzern*, in Festschrift für Ludwig Raiser, 287 (Fritz Baur et al. eds., 1974).

⁶³ TEUBNER, *supra* note 60, 208.

⁶⁴ Sources in TEUBNER, *supra*, note 2, 48 fn. 81, fn. 83 and fn. 88.

⁶⁵ CAFAGGI, *supra*, note 12, 7.

⁶⁶ Marc Amstutz, *The Constitution of Contractual Networks*, in CONTRACTUAL NETWORKS: LEGAL ISSUES OF MULTILATERAL COOPERATION, 309, 334 (Marc Amstutz & Gunther Teubner eds., 2009).

and ability to evolve of the total constellation. Here one can connect with the law of corporate groups, which supports the autonomy of the subsidiaries in relation to the central company.⁶⁷ But we need to go beyond a merely instrumental autonomy that binds the nodes to the profit interest of the total company. Rather, it is reflexive autonomy that should be established.⁶⁸ It exists when all network nodes reflect independently on the precarious relationship between their environmental effects (in the broadest sense) and their function in the whole network. Reflexive autonomy plays a decisive role in particular in research networks between governmental actors, economic enterprises and academic institutions.⁶⁹ Law will support reflexive autonomy if it imposes a legal duty on the nodes to take into account the functioning of the network as a whole and if it imposes on the centre a complementary duty to respect the nodes' autonomy.

Similar ambivalences should be taken into account by the political regulation of networks. How can one regulate from the outside a "trans-subjective evolutionary dynamic" if there is no unitary object of regulation that the regulatory actor can grab hold of with command and control, with incentives or with indirect steering? Partisans of the so-called nodal governance approach suggest that the regulation agency, instead of trying to influence the whole network in vain, should concentrate on the individual nodes.⁷⁰ Instead, a Beelzebub-Lucifer strategy seems more appropriate: regulation of networks by networks of regulation. This means for international networks that one national node of the international regulatory network is always responsible for controlling its national counterpart in the regulated network, and that, connections on the regulation level should control the connections on the level of action.⁷¹ Similar proposals have also been made for control of networks by civil society institutions. NGO-networks and stakeholder communities will be able to develop control pressure only when they build simultaneously countervailing power to every local node and to the centre of action.⁷²

⁶⁷ Cf. Munich Commentary AktG, 2 (2000 ed.), § 308, nr. 101.

⁶⁸ Gunther Teubner, *Coincidentia Oppositorum: Hybrid Networks Beyond Contract and Organisation*, in CONTRACTUAL NETWORKS: LEGAL ISSUES OF MULTILATERAL COOPERATION, 3, 28 (Marc Amstutz & Gunther Teubner eds., 2009).

⁶⁹ Andreas Abegg, *Legislation and Self-Regulation of Hybrid Networks at the Intersection between Governmental Administration and Economic Self-Organization*, in CONTRACTUAL NETWORKS: LEGAL ISSUES OF MULTILATERAL COOPERATION, 255, 273 (Marc Amstutz & Gunther Teubner eds., 2009).

⁷⁰ Scott Burris, Peter Drahos and Clifford Shearing, *Nodal Governance*, 30 AUSTRALIAN JOURNAL OF LEGAL PHILOSOPHY, 30 (2005).

⁷¹ Anne-Marie Slaughter, *The Accountability of Government Networks*, 8 INDIANA JOURNAL OF GLOBAL LEGAL STUDIES, 347 (2001).

⁷² For networked NGOs, MARGARET E. KECK & KATHRYN SIKKINK, *ACTIVISTS BEYOND BORDERS* (1998). For networked stakeholder communities, Joshua Cohen & Charles Sabel, *Norms and Global Institutions* (2006), available at: www.princeton.edu/~pcglobal/conferences/normtive/papers/Session4_Cohen_Sabel.pdf.

If one finally approaches the collectivity of networks in its core meaning, then the legal controversies become sharper. Here, tough liability regimes for the network as a whole come into play. On the one hand, liability norms need to protect the network as such from damaging actions by its members or by third parties. On the other hand, liability regimes need to react to negative externalities of the network itself. Up to now, legal doctrine, however, blocks this and limits liability to claims originating in bilateral contractual relations.⁷³

Yet, the logic of the network demands that network members who are not tied together by means of bilateral contracts are liable to each other; particularly, where they violate the collective interest of the network. At this point, the co-responsibility of private law for network failure becomes evident. Where internal co-ordination disasters are not sanctioned by rules of liability, the law counteracts the co-ordination potential latent in the network instead of realizing it. Free-riding as well as standard-lowering in franchising and in supply chains are the dubious constellations. So far only a minority of scholars has developed liability rules for network members that are not bound to each other by a bilateral contract.⁷⁴ Others adapt the construction of a *actio pro socio* to networks, which allows to compensate harm to the reputation of the whole network done by individual members.⁷⁵ Complementary to this, Wolf developed a liability regime for the protection of networks from damages by third parties. If the operation capability of a network is reduced through damaging the operation of one network node, then the violator is liable also for the additional cost of the damage to the network itself that is felt by other nodes.⁷⁶

The resistance against a liability regime becomes strongest in the reverse case where external liability would be needed to fight against the often criticized reticular irresponsibility. A specter floats around – the specter of collective liability. Should the failure of an individual member be the responsibility of the other members, who cannot be blamed for this singular misbehavior, or even be the responsibility of the totality? But this

⁷³ ROHE, *supra* note 15, 439, 444; ANNIKA SCHIMANSKY, DER FRANCHISEVERTRAG NACH DEUTSCHEM UND NIEDERLÄNDISCHEM RECHT UNTER BESONDERER BERÜCKSICHTIGUNG SEINES NETZCHARAKTERS UND DER ANSPRÜCHE BEI VERTRAGSBEENDIGUNG, 117 (2003).

⁷⁴ HELDT, *supra* note 27, 150; Knut Werner Lange, *Virtuelle Unternehmen*, in UNTERNEHMENSRECHT UND INTERNET: NEUE MEDIEN IM AKTIEN-, BÖRSEN-, STEUER- UND ARBEITSRECHT, 169, 188 (Ulrich Noack & Gerald Spindler eds., 2001); KARL LARENZ & MANFRED WOLF, ALLGEMEINER TEIL DES BÜRGERLICHEN RECHTS, 470 (1997); Gunther Teubner, *Piercing the Contractual Veil: The Social Responsibility of Contractual Networks*, in CRITICAL CONTRACT LAW, 211, 232 (Thomas Wilhelmson ed., 1993); TEUBNER, *supra* note 2, 126.

⁷⁵ Cordula Heldt, *Baukooperation und Franchising als multilaterale Sonderverbindung: Vertragsnetzwerke – Parallelschuldverhältnisse – Personengesellschaften*, Frankfurt: Dissertation, 224; CAFAGGI, *supra* note 12, 44; TEUBNER, *supra* note 2, 128.

⁷⁶ Manfred Wolf, *The Protection of Contractual Networks Against Interference by Third Parties*, in CONTRACTUAL NETWORKS: LEGAL ISSUES OF MULTILATERAL COOPERATION, 225 (Marc Amstutz & Gunther Teubner eds., 2009); CAFAGGI, *supra* note 12, 44.

is only a ghost. In reality, a de-centralized collective liability is concerned – a de-centralized and at the same time selective responsibility within the network configuration, which answers internal disasters of co-ordination with an effective threat of sanctions. This is somewhat similar to the long recognized responsibility for violations of organizational duties within hierarchical organizations. “Interface liability” is the network suitable solution, which reacts to internal co-ordination failure with liability norms that create several responsibility for the network nodes involved. French case-law has introduced the concept of “*non-divisibilité*” of an “*ensemble des contrats*”, which excludes an exit-option for network members, even where it is explicitly provided for contractually.⁷⁷ Nonetheless, such a collective distributed responsibility is still a taboo, to which a coalition of lawyers – who hold networks to be juridically irrelevant – and modern network lawyers – who choose to see only the opportunities and not the risks of networks – cling.⁷⁸ The missing liability for negative externalities is therefore the other major hang-up, as a consequence of which private law is co-responsible for the failure of networks.

C. Coping with Uncertainty: Reduction, Transformation or Intensification?

If legal arrangements aim to realize the latent integration potential of networks, then they should correct reticular irresponsibilities by an effective liability regime and strengthen the fragile co-ordination mechanisms of networks by imposing appropriate obligations. But there are doubts connected with each of the four integration potentials discussed. Does Lucifer not simply act like Beelzebub – he who drives out Satan successfully but then takes his place? If that is true, what can be said in general about the diabolics of network failure? No doubt, the connectivity of networks in a decentralized world – the very *symbolon* of networking – is strengthened when the law, with appropriate norms, supports their inner co-ordination and responsibility. However the price that is regularly paid is a new dynamic of separation - a new *diabolon* of networking - as we have seen, either through the difference between binding and non-binding effects of factual conduct, or through the divide between contractual sphere and network sphere, or through the division between contractual frame and later concretization, or through the distinction between individual and collective orientation, or through the difference between competition and co-operation.

Lucifer brings light into the darkness of the uncertainty, which is typical for the inner coordination in networks and makes integration possible in spite of high decentralization. But Lucifer, just like Beelzebub before him – who bestowed upon us network failure instead of hierarchical failure – only removes one threatening uncertainty in order to

⁷⁷ E.g. Cass. Civ. April 4 2006 Répertoire du Notariat Defrénois 2006, 1194.

⁷⁸ BAYREUTHER, *supra* note 16, 399; SCHIMANSKY, *supra* note 73, 125; Stefan Grundmann, *Die Dogmatik der Vertragsnetze*, 207 ARCHIV FÜR DIE CIVILISTISCHE PRAXIS, 718, 718 (2007). (with modifications).

create a new one. Should that be the productive way of dealing with uncertainty: not to reduce uncertainty but to transform and possibly even to intensify it? One knows this in medicine as a change of symptom: just as the one pain is soothed, a new pain pops up in another place in the body. Apparently, with changes in the uncertainty of networks, we are on the trail of a general problematic of how to deal with uncertainty: "If absorption of uncertainty is a process of decision, this means that the process should also take into account the prospect of future decisions and by doing so regenerate the uncertainty that it removes."⁷⁹ But if uncertainty is not abolished but only regenerated then one could leave it as it is. How would it help the network if it won integration at the expense of damage to its orientation?

The point seems to be that we cannot avoid switching from one devilry to another; however, one devil is not the same as the other. Beelzebub is unlike Satan, and Lucifer is unlike Beelzebub. And possibly in the future, Lucifer will be driven out by another devil with similar but other hellish qualities. What is decisive are the small differences in the order of demons, from Adramelech via Mammon to Thammuz. There is one question that should be answered whenever one drives out one uncertainty with another. Does the difference in uncertainty make a difference?

Let us go back to our four remedies for network failure and ask this question each time.

Remedy # 1: Interface liability

This liability regime battles quite successfully the network-typical uncertainty which emerges at interfaces between nodes, by forcing neighboring nodes to co-ordinate their activities. It imposes liability for co-ordination failure on all those potentially involved in the activity which is at stake. But, as usual, the old uncertainty is replaced by a new one: Which criteria will serve to limit the number of liable nodes? This is particularly problematic in large scale networks? That is indeed an unfortunate situation. However, in comparison, the new uncertainty seems rather controllable because it is possible, in any case with hindsight, to determine with sufficient precision the number of responsible actors if one only takes into account the specifics of the concrete situation. In particular, if one applies the criterion: Who is involved in the project at hand – by the realization of which damages arise and which differentiates itself from other network activities – one can avoid an unjust collective responsibility of a too large number of participants or of the whole network.⁸⁰

⁷⁹ LUHMANN, *supra* note 6, 187.

⁸⁰ For a detailed analysis, see Gunther Teubner, *Expertise as Social Institution: Internalising Third Parties into the Contract*, in *IMPLICIT DIMENSIONS OF CONTRACT DISCRETE, RELATIONAL AND NETWORK CONTRACTS*, 333 (David Campbell et al. eds., 2003).

Remedy # 2: Implied duties of care

The network failure which is triggered by centrifugal tendencies in the de-central style of decision, can be corrected by imposing implied duties of care that network nodes owe to each other and to the whole in particular fields. Immediately, however, a new uncertainty on the kind and the extent of such duties arises. Here the difference between contractual sphere and integrated sphere in the network may provide the criterion limiting the catalogue of duties, which in its turn produces new, yet again legally solvable uncertainties.

Remedy # 3: Insurance regime

If one reacts to negative network externalities with the liability rule of distributed collective liability, one may reduce new uncertainties, – as has already been suggested – by imposing a duty of the net centre to insure the members, the costs of which can be calculated with the fees.⁸¹ Our method of comparative diabolics would make this apparent.

Remedy # 4: *Non-divisibilité*

If the law learns the double strategy for opening up spaces of autonomy and, after a long learning process, determining via prohibitions the borders of autonomy,⁸² then it will generously permit many forms of network contracts, but in particular cases block the exit option with the ‘sword of fire’ of the “*non-divisibilité*”, i.e. it will not allow powerful network participants to withdraw from their network responsibility by means of standard contracts. In that case, a new uncertainty opens up again, namely to distinguish situations of *divisibilité* from situations of *non-divisibilité*. Here too the chances of concretising the *non-divisibilité* in an incremental process of legal decisions seem more attractive than the uncertainty of leaving the limits of exit to private autonomy.

A “philosophy” of dealing with uncertainty – if it becomes part of legal culture – will care for such distinctions. What is needed is a second-order observation of uncertainty absorption. What does the new uncertainty, which has taken the place of the old one, look like in detail? And so comparative diabolics would recommend: do not rigidly reduce uncertainty. Rather try to arrange the exorcism of the devil in such a way that is possessed only by two other ghosts: the increase of internal irritability and the goal-orientated shift to controllable variables.

And it seems that to increase internal irritability is at the end more important than to control the new uncertainty. Without a doubt it is important to change the one uncertainty into the other, to shift it from the market to the organization, from the organization to the

⁸¹ Robert W. Emerson, *Franchisors' Liability When Franchisees Are Apparent Agents*, 20 HOFSTRA LAW REVIEW, 609, 667 (1992), fn. 274, 668, 670; Joseph H. Jr. King, *Limiting the Vicarious Liability of Franchisors for the Torts of Their Franchisees*, 62 WASHINGTON AND LEE LAW REVIEW, 417, 460 (2005).

⁸² Rudolf Wiethölter, *Just-ifications of a Law of Society*, in PARADOXES AND INCONSISTENCIES IN THE LAW, 65, 76 (Oren Perez & Gunther Teubner eds., 2005).

network, and from the network to the law, etc, in order to reach decisional advantages. But what is really needed is to maintain, to renew and to intensify the inherent network uncertainty. Why? Because network uncertainty possesses a provocative power. Networks create in their nodal points the valuable potential of observing the world from diverging perspectives and of transforming the multiple perspectives into the decision chain. "A poly-perspectivism replaces the traditional rationalist model which is obsessed by uniformity".⁸³ What courts is not only the diabolic/angelic role of networks to regenerate one uncertainty after another, but their plurality of deviating positions of observation. Inter-systemic networks indeed dispose of Ladeur's "social epistemology" because they institutionalize different perspectives by their plurality of autonomous nodes. And if they are able to link these perspectives to a consistent chain of decision, then they systematically provoke the riches of the power of judgment, the role of which is realized in the indecidable collision of incompatible worlds of meaning which nevertheless needs to be decided.⁸⁴ Should this be the hidden agenda of a "network appropriate law"- a gentle compulsion towards the power of judgment?

⁸³ Ino Augsberg, *Das Gespinst des Rechts: Zur Relevanz von Netzwerkmodellen im juristischen Diskurs*, 38 RECHTSTHEORIE, 479, 485 (2007).

⁸⁴ As is known, Immanuel Kant localises judgement neither in the area of understanding, nor in practical reason, but characterises it as a "means of connecting the two parts of philosophy in a whole", IMMANUEL KANT, CRITIQUE OF JUDGEMENT, 12 (1790, reissued 2007).