'And if I by Beelzebub cast out devils, ...': an essay on the diabolics of network failure¹

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Abstract

Following a first euphoric phase about the advantages of commercial networks, there is now a host of reports attesting to their confusing over-complexity. Network 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. In order to overcome network failure this article pursues an institutional analysis of networks: Where can the 'opportunity structure' be found, the social potential for an increasingly non-hierarchical coordination within the net? Is there a 'conceptual readiness' of the law which would enable it to set this potential free? The article suggests to develop organisational forms and responsibility rules for the law of networks that will hold on to the advantages of the decentralised organisation of nodes while decisively strengthening their mutual coordination. This will drastically 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.

Keywords: network, network failure, connected contracts, heterarchy

1. Limits of the network society

Hierarchy failure, market failure, yes – but, network failure? We have lived through painful experiences of hierarchy failure. One of the great innovations of the organisational 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 organisation dangerously restricted the information flow between the organisation and its environment: a restriction so severe that it could not be remedied by informal contacts on the organisation's base. The top of the organisation lost sight of its environment; the organisation tenaciously held on to its bureaucratic and rigid, internally produced constructions of its 'outside' and its observance of fixed strategies.²

The law carried a considerable degree of joint responsibility for this hierarchy failure. With a certain rigidity the public

law of the 'organisation society' had supported and immunised the hierarchical coordination mechanisms of immobile large scale organisations against change (Ladeur, 1992: 177). 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 hierarchisation and the external concentration towards the organisation top. Organisational law, both public and private, must be seen as a major culprit in the production of hierarchy failure (Teubner, 2008: 36).

The last thirty years have seen a network revolution that resulted in a thorough erosion of organisational hierarchies in both the private and the public sector. A dramatic decentralisation of decision making took place. This was achieved by a high degree of operational autonomy which the newly emerging network organisations granted to their nodal points. Decentrally organised company groups and administrative agencies, inter-organisational networks as well as global networks of regulatory agencies now all share a formidably high level of environmental openness and adaptability. It is de-hierarchisation that enabled the organisation to multiply the observations of its environment, to increase its variety, to move the organisation 'closer to life', as well as to augment its

¹ Translated by Morag Goodwin, Ralf Michaels and Peer Zumbansen.

² Brun *et al.*, 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, Teubner, 2008: 23, 52.

responsiveness and flexibility (Littman and Jansen, 2000: 110). 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 concretise different steps of the decision making process one by one (Luhmann, 2000: 211). Today, heterarchical networks are dominating hierarchical organisations 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 decentralisation caused the devil of hierarchy to exit from the organisational body under aching and groaning. The uncertainties connected with the hierarchy's environment were successfully exorcised 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 regard to the environment, the name of Beelzebub stands for a not less threatening uncertainty regarding the inner coordination of the net's autonomised 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 (Boehme-Nessler, 2008: 534; Hirsch-Kreinsen, 2002: 118; Weyer, 2000: 25; Messner, 1997: 56). 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 economisation 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' (Hirsch-Kreinsen, 2002: 118). Networks tend to aggravate those very problems that they simultaneously work to resolve. Like other modern institutions, networks mobilise 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 'organised 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 centralisation 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. 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'.³ 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.⁴ 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 illegalise 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 hierarchisation.⁵ We find a rigid limitation of conceptual choices in both contract and corporate law, where we are asked to opt for either contract or organisation – *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' (Cafaggi, 2008: 40, 43). Although private law is supposed to support private autonomy, it comes empty-handed when asked to provide for an organisational framework to deal with networks. Corporate networks have by now assumed a solid place in regulated markets, ranging from energy to telecommunications

³ Möllers, 2005: 285. For an overview of the reception of network concepts in public law: Nowrot, 2007: 15. See also, Luhmann, 2000: 207.

⁴ Boysen *et al.*, 2007. Also, Möllers (2005: 295) views the network concept as legally fruitless, but turns this fruitlessness into a positive.

⁵ Only rarely is antitrust law criticised from this perspective: Ensthaler and Gesmann-Nuissl, 2000: 2269.

markets, from bank networks to transport and air traffic networks. But the law's answer exhausts itself in the concept of bi-lateral contracts.⁶ 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' chronic internal coordination weaknesses.⁷ 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 relations,⁸ the doctrine of network contracts resists any direct acknowledgement of reticular responsibility with new liability rules. There would just be no need! (Wellenhofer, 2009: 119; Bayreuther, 2001: 399; Rohe, 1998: 418). One is almost tempted to pen the second volume to a provocative book, to be entitled 'The Private Law Against Society'.⁹

2. 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 decentralisation. Result is

⁶ From a comparative law perspective, Cafaggi, 2008: 52. Some legal systems, however, are more advanced than others.

⁷ Decisions of the German Federal Court of Justice (Bundesgerichtshof), 20 May 2003 ('Apollo-Optik: Pflicht des Franchisegebers zur Weitergabe von Differenzrabatten an Franchisenehmer', Betriebsberater, 43: 2254) and 22 February 2006 ('Hertz', Betriebsberater 46: 1071). Different, however, is the decision of the German Federal Cartel Office (Bundeskartellamt), 8 May 2006 ('Praktiker Baumärkte GmbH', B9 – 149/04). Pursuing the previous line of argument, again: Decision of the Higher Regional Court Düsseldorf (Oberlandesgericht Düsseldorf), 13 December 2006 ('Praktiker', Betriebsberater, 47: 738).

⁸ Network contracts: Rohe, 1998; 'Basis of contract': Grundmann, 2008: 232; Grundmann, 2007: 742.

⁹ The first volume is entitled 'The State Against Society': Ladeur, 2006.

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 organisation, the new bringer of light suggests drastically increasing internal irritability. In order to overcome network failure this approach aims at developing organisational forms and responsibility rules for networks that will hold on to the advantages of the decentralised organisation of nodes while decisively strengthening their mutual coordination (Kulms, 2000: 186, 227). This will drastically reduce the privacy 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 (Cafaggi, 2008: 6).

Social scientists indeed display a certain optimism when it comes to casting out Beelzebub himself (Windeler, 2001: 336; Sydow, 1999: 299; Lemley and McGowan, 1998: 198; Gerum *et al.*, 1998: 267). With a Luciferian geste, 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 organisations. 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' (Cafaggi, 2008: 3). The primary candidates who could give this support are organisational culture, governmental economic policies, economic associations, and management consultancies, but also the law is to play a role. The question for law is:¹⁰ which norms can contribute to setting free from its blockades the integration potential which exists in what Niklas Luhmann (1990: 165) calls the 'heterarchical, connexionistic and network-like combination of communications'? 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

¹⁰ Viellechner (2007: 43) poses the question for public law and provides preliminary answers.

between social norms and law. 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 (Augsberg and Ladeur, 2008: 164). This program has been formulated as research agenda of a double institutional analysis, as it was developed by Philip Selznick (1992: 229). 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 a normative program of a 'network adequate law' which has already been pursued in internet governance, media networks and virtual auctions (Vesting, 2004: 247).

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 stabilise 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.

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. organisation. Networks are spontaneous orders *sui generis*, whose cooperative relations are in fact not dispersing but concentrating the sought knowledge (Heldt, 2009: 144; Teubner, 2008: 79; Gordon, 1994). 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 ties (Granovetter, 1973) – and that work effectively against the centrifugal tendencies of autonomised profit centres – as long as these ties are sufficiently supported by social and legal institutions. But, has the law the conceptual readiness to institutionalise such binding arrangements? This is indeed problematic for the dominant contract paradigm, since the modern rational binding institutions, consensual contract and hierarchical organisation, have emerged as winners, casting the spell of illegality over old binding forms as anti-competitive,

clientelistic or even corrupt (in addition, see, Deakin, 2009: 58).

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' (Jhering, 1861). 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*).¹¹ 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 (Acquis Group, 2007: 186). 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.

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 (cf. Säcker and Rixecker, 2007: § 311, no. 68). The same is true for the category of 'trust',

¹¹ On the present stage of development, Säcker and Rixecker, 2007: § 311 no. 185 (Prospectus liability); § 311, no. 244 (Trustee); § 328, no. 150 (Expert third party liability); § 328, no. 157 (Bank transfer); § 358 no. 3 (Contract connections).

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 generalisable reciprocity and, secondly, that the entry into the larger network occurs on the basis of local, bi-lateral contacts.¹² This condition of 'and-so-forth' of generalisable 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 recognise 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 recognising 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 (in detail, Teubner, 2008: 60). 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 to be either 'in conflict with existing law' or, at best, to be 'visionary' (Grundmann, 2008: 228; 2007: 724). And we know what happens to visionaries.

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, organisations, epistemic communities, functional systems (Buchanan, 2002; Watts, 1999). 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 organised special units and their coordination. Networks as 'highly improbable reproduction relations of heterogeneous elements' are characterised by the unlikelyhood of closed systems opening towards each other (Baecker, 2002: 14). 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-organisational networks, networks of epistemic communities and networks of research institutions, firms, and public administrative agencies (Everson and Joerges, 2006). 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 organisation (Heldt, 2009).

This dualism is the reason why Viellechner (2007: 43) can claim that the vague notion of network can be used as a legal term only when it is realised as a connection of bilateral contracts and, as must be added, as a connection of formal organisations. 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 authorisations 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 authorisation in advance. This somewhat monstrous construct disregards the social peculiarities of networks and therefore impose greatly exaggerated requirements on the legal formation of networks.¹³ Other scholars ask for an additional 'coupling agreement', or for a complete multilateral contract, or for a

¹² On generalised reciprocity: Stegbauer, 2002: 79; Gouldner (1960: 176) speaks of the 'starting mechanism'. On iterative network building, Bommers and Tacke, 2007: 14; Stichweh, 2000.

¹³ Afterwards, all kinds of fictions are necessary to alleviate the absurd consequences; e.g. Rohe, 1998: 85, 176, 356.

multilateral *synallagma*.¹⁴ 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.¹⁵

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,¹⁶ 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.¹⁷

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 (see Teubner, 2008: 41, with further references). 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 organisations. 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 (Kirchner, 2000: 351). This twofold orientation of network participants forces the law to recognise 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 decentralised action within the network.

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, centralised competences and hierarchically ordered criteria – fail, the reaction is an increased reciprocal observation of nodes within the network. 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 'through a practice of experimentation, accessible neither for the individuals nor for the state.' (Ladeur, 2000: 82). Now, transparency, reciprocal accessibility, and generalised 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

¹⁴ Coupling contract: Schluep, 2003: 304; multilateral contract: Vollkommer, 1973: 711; trilateral *synallagma*: Heermann, 2009: 106.

¹⁵ See the brilliant criticism by Kiesow, 2005.

¹⁶ Decisions of the German Federal Court of Justice, 20 May 2003 ('Apollo-Optik: Pflicht des Franchisegebers zur Weitergabe von Differenzrabatten an Franchisenehmer', *Betriebsberater*, 43: 2254) and 22 February 2006 ('Hertz', *Betriebsberater* 46: 1071). For pungent criticism, see Böhner, 2009.

¹⁷ Decision of the German Federal Cartel Office (Bundeskartellamt), 8 May 2006 ('Praktiker Baumärkte GmbH', B9 – 149/04). In accordance with the previous jurisprudence, see again, the decision of the Higher Regional Court Düsseldorf, 13 December 2006 ('Praktiker', *Betriebsberater*, 47: 738).

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 serialised. In the substantive dimension, obligations are concretised 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 temporalised through framework agreements and later step-by-step concretion. The problem of uncertainty is resolved so that the obligations are specified over time (Andersen, 2008: 97). 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 (Goldmann, 2007: 242). 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 stabilise expectations in the expectation that expectations will change (Mouzas and Ford, 2009; Andersen, 2008: 97). 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 concretisation. The iterativity of decisions is characterised 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' (Ladeur, 2000: 167). The network partners are legally obliged 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 organisational units, familiar from organisation theory, is taken to the extreme: Uncertainty is absorbed through reciprocal acceptance of decisions by decentralised entities. This absorption of uncertainty is characterised by a peculiar rule-exception relation. The rule is: Decentralised entities accept the decisions of other decentralised 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 (Luhmann, 2000: 207). 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 (Alford, 2003: 792).

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 (see Säcker and Rixecker, 2007: § 241, no. 60). Through proceduralisation, it manages to defuse the paradox of nonbinding obligation by the mere lapse of time. Opportunistic behaviour 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 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.

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 organisation.¹⁸ 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 collectivisation 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 (2009) has highlighted a peculiarity of networks, which has almost disappeared from sociological and economic theorising. He spoke of the 'character of the network as a trans-subjective evolutionary structure'. 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 (Teubner, 1993b). In fact, there are networks that are able to act independently as a whole: joint ventures, franchising systems, just-in-time networks.¹⁹ 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 organisation (Bälz, 1974). Without a centre, without leadership, without a unified management, and without one single authorised 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 (Teubner, 1993b: 208). 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 (for sources, see Teubner, 2008: 48 fn. 81, fn. 83 and fn. 88). 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 characterises the collective interest of the network (Cafaggi, 2008: 7), 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 (Amstutz, 2009: 334). 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 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 (Kropff and Semler, 2000: § 308, no. 101). 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 (Teubner, 2009: 28).

¹⁸ Against their collective nature: Tacke, 2000: 317; Kämper and Schmidt, 1999: 219. In favour of their collective nature: Castells, 2000: 381; Sydow and Windeler, 1998: 265. Luhmann (2000: 408) distinguishes various situations in which networks take on a collective character.

¹⁹ 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, 2000: 408.

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 (Abegg, 2009: 273). 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 (Burris *et al.*, 2005). 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 (Slaughter, 2001). 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.²⁰

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 (Rohe, 1998: 439, 444; Schimansky, 2003: 117). 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 realising 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 (Heldt, 2009: 150; Lange, 2001: 188; Larenz and Wolf, 1997: 470; Teubner, 1993a: 232; Teubner, 2008: 126). 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 (Heldt, 2008: 224; Cafaggi, 2008: 12, 44; Teubner, 2008: 128). 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 (Wolf, 2009; Cafaggi, 2008: 44).

The resistance against a liability regime becomes strongest in the reverse case where external liability would be needed to fight against the often criticised reticular irresponsibility. A spectre floats around; the spectre of collective liability. Should the failure of an individual member be the responsibility of the other members, who cannot be blamed for this singular misbehaviour, or even be the responsibility of the totality? But this is only a ghost. In reality, a de-centralised collective liability is concerned; a de-centralised 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 recognised responsibility for violations of organisational duties within hierarchical organisations. '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.²¹ 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 (Bayreuther, 2001: 399; Schimansky, 2003: 125; Grundmann, 2007: 718 (with modifications)). The missing liability for negative externalities is therefore the

²⁰ For networked NGOs, Keck and Sikkink, 1998. For networked stakeholder communities, Cohen and Sabel, 2006.

²¹ E.g. Cass. Civ. April 4 2006 Répertoire du Notariat Defrénois 2006, 1194.

other major hang-up, as a consequence of which private law is co-responsible for the failure of networks.

3. Coping with uncertainty: reduction, transformation or intensification?

If legal arrangements aim to realise 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 decentralised 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 concretisation, 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 decentralisation. 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 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' (Luhmann, 2000, 187). 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 neighbouring 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 realisation 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 (for a detailed analysis, see Teubner, 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 (Emerson,

1992: 667, fn. 274, 668, 670; King, 2005: 460). 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 (Wiethölter, 2005, 76), 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 organisation, from the organisation to the 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' (Augsberg, 2007: 485). 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 a 'social epistemology' because they institutionalise 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 realised in the

indecidable collision of incompatible worlds of meaning which nevertheless needs to be decided.²² Should this be the hidden agenda of a 'network appropriate law' - a gentle compulsion towards the power of judgment?

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²² 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', Kant, 2007: 12.

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