

Contracting in Networks

Vaula Haavisto

1	Introduction	238
2	The Historical Change in the Organization of Work and Production	239
2.1	Networks: “Neither market nor hierarchy”	241
2.2	The customer as a producer and the producer as a customer: new forms of collaboration in business	242
3	Contracts in the Turmoil of Business	243
3.1	The significance of contracts in collaborative ventures	247
4	Conclusions	249
4.1	Contracts as scripts for collaborative venture	251
4.2	Methodological challenges in studying contracting in networks	252

1 Introduction

Recent developments in organizing production and multi-organizational collaboration are the subject of vigorous academic debate. Phenomena such as joint ventures, strategic alliances and inter-organizational networks increasingly question the traditional functions of organizational boundaries, and thus pose one of the major challenges to contemporary organizational research. Scholars in organization theory, economics and sociology have considered networks and flexibility to be keywords describing the spearheads of development. Networked collaboration has been seen as an economic revolution in which the business rules are radically changing.

Networking has generally been understood as part of a wider transition in industrial societies. For some, strategic alliances and other flexible modes of work organization appear essential in the “race for the future” - a true cornerstone of global competitiveness¹. On the other hand, some consider current developments threatening, and forewarn us of “the corrosion of character” as a consequence of the new economy².

Regardless of how we value the possibilities and threats of recent developments, we can recognize germs of qualitatively new kinds of business relationships, characterized by multifaceted networks and boundary crossing over traditional organizational frontiers. Partnering in order to create new strategic advantage, as well as joint product development between producers and customers, represent new organizational forms that question our previous assumptions about solely market-driven or hierarchical business relationships. In turn, our understanding of contracts comes under the spotlight. If the production of goods and services changes, as does collaboration between partners, what happens to the contracts governing the collaboration?

Traditionally, the prototype of contractual phenomena has been the discrete transaction exemplified by the spot sale. Lately, a number of scholars in contract law have begun to identify the limitations of the ideal of discrete transaction as a primary model. The Finnish scholar Juha Tolonen argues that actual business operations do not match the picture given in books on contract law because the explicitly competitive business world is, in reality, continuously shrinking.

“It is essential that companies aim at creating more solid and more reliable networks of co-operation relationships than the ones of the competition economy. Their solidness and trustworthiness become more and more important in situations in which economic relations are becoming more complex. These relationships cannot be expressed in the form of the detailed contracts the standard textbooks tell us about.

¹ See e.g. Doz, Y. & Hamel, G., *Alliance Advantage: The Art of Creating Value through Partnering*, Harvard Business School Press, Boston, Mass.1998; Spekman, R. E., Isabella, L.A. & MacAvoy, T.C., *Alliance Competence: Maximizing the Value of Your Partnership*, John Wiley & Sons, New York 2000.

² See e.g. Sennett, R., *The Corrosion of Character. The Personal Consequences of Work in the New Capitalism*, W.W. Norton & Company, New York 1999.

The contracts that cover complex long-term relationships are never water-tight in the judicial sense, but are often inconsistent and unclear.”³

More and more complicated figures of user-producer relationships in terms of subcontracting and partnering, as well as the long-span co-construction of products in dialogue between the producer and the customer, all represent development that requires the re-consideration of contracts and contracting. This article charts the historical change in the organization of work and production, which is considered a major developmental challenge for contract law. Are contracting and contract law in transition? Do contracts support or restrict multi-partner collaboration in networks?

2 The Historical Change in the Organization of Work and Production

Bart Victor and Andrew Boynton⁴ provide a framework for studying the historical change in the organization of work and production. They identify five types of work in the history of industrial production: craft, mass production, process enhancement, mass customization, and co-configuration (Figure 1).

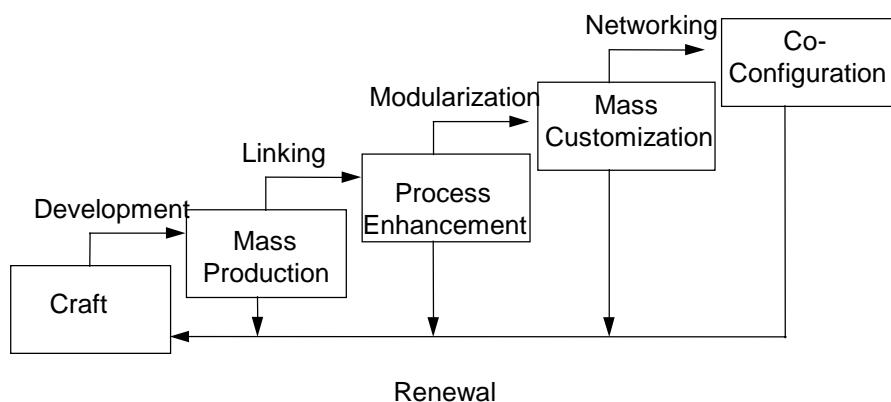


Figure 1: The historical change in the organization of work and production according to Victor & Boynton⁵

Of the types of work organization, *craft* is considered the earliest, typically featuring simple technology and only minimal division of labor. Activities are based on traditions and individual experience. The craftsman's knowledge is highly personal, transmitted from one individual to another.

³ Tolonen, J., *Oikeustiede tieteenä*, In Häyhä, J. (Ed.) *Minun metodini*, WSOY Lakitieto, Helsinki 1997, p. 307 /translated by V.H.

⁴ Victor, B. & Boynton, A., *Invented Here. Maximizing Your Organizations' Internal Growth and Profitability*, Harvard Business School Press, Boston 1998.

⁵ Ibid. p. 233.

During the industrialization process, craft was replaced by rationalized *mass production*. Fordistic or Tayloristic organization of work was hierarchical and featured a strong division of labor in its search for efficiency. On the one hand, thinking and doing were detached as engineering and operations were separated, while on the other, manufacturing processes were split into small subunits. Standardizing and automating the processes, splitting organizations into sectors or departments and forcing tight regulations in manufacturing were characteristic of mass-production. Knowledge of the work no longer rested in the head of the worker, but was in the machines.

Process enhancement was the next step in the transformation of work. Competitive advantage was looked for through new quality systems and the transformation of mass production. Process enhancement loosened the strict separation of engineering and operations, and instead required all employees to work together to continuously improve ongoing processes. The central idea was to capitalize on what workers learned while carrying out their everyday routines in the company's mass-production process.

The knowledge gained in process enhancement initiated a new type of work, *mass customization*, in which products are customized according to the customers' needs and demands. Build-to-order products are manufactured to fit precisely to the client's needs by using modularization, which enables the mass production of interchangeable units according to customer demand.

As a recent type of work and a future possibility, Victor and Boynton present *co-configuration*, which occurs at the interface of the firm, the customer and the product. It implies constant collaboration between the producer and the customer in order to develop the product to match customer needs. The product is never finished. It is initially fitted to the user, and then continuously modified to meet the customer's changing needs. This requires the company continuously to configure its products in interaction with the customer.

Like Victor and Boynton, Engeström, Engeström and Vähäaho⁶ have also tried to outline the emergence of new work types. Ever more complex economic relations have made organizations look for more flexible solutions and have created new types of units, characterized by networked, flexible structures, a minimal hierarchy and collaboration across organizational and occupational boundaries. They have paid attention to the forms of work organization that do not fit standard definitions of a team, or of a network. They call *knotworking* the "rapidly pulsating, distributed and partially improvised orchestration of collaborative performance between otherwise loosely connected actors and activity systems".⁷ The constant change of the collaborative unit has been typical of many established practices, such as those of airlines that change the crew combination for every flight, and courts of law in which the combination of judges and attorneys is different for each trial. Although examples are to be found in well-established practices, it seems that the emergence of this type of

⁶ Engeström, Y., Engeström, R. & Vähäaho, T., *When the Center Does Not Hold: The Importance of Knotworking*, in Chaiklin, S., Hedegaard, M. & Jensen, U.J. (Eds.), *Activity Theory and Social Practice: Cultural-Historical Approaches*, Aarhus University Press, Aarhus 1999.

⁷ Ibid. p.346.

work is associated especially with the ongoing historical changes in organizations.

Engeström et al. argue that knotworking is a historically new form of organizing work activity, connected especially to the emergence of new co-configuration models of production. Knotworking involves no assumed center of coordination and control - the center does not hold. It typically promotes the crossing of traditional organizational boundaries and the drawing of new borderlines. These borderlines are a source of disruption and tension, but also a potential basis for learning new collaborative solutions. In fact, Engeström et al. see knotworking as the emerging interactional core of co-configuration as defined by Victor and Boynton.

Export, construction and development projects are familiar examples of work that seems to include several characteristics of knotworking. The tradition of organizing one-off projects that serve a certain purpose and are then dissolved is long in these areas. Today, more than earlier, what is planned and developed seems to be something indefinite, emergent and evolving. One characteristic of the new kind of knotworking is possibly the negotiative way in which all those participating in the process work. It is evident not only in the strategic negotiations run by the management, but also in the continuous dialogue through which the practical details are negotiated on the shop floor.

2.1 Networks: “Neither market nor hierarchy”

The well-known economist Oliver Williamson⁸ argued that the two basic forms of a modern organization are the hierarchical and bureaucratic, and the market-based. Firms either incorporate the production chains into their own hierarchy, or outsource them. Walter Powell⁹, in his historically well-grounded article “Neither market nor hierarchy”, opposed this view and argued that organizations are evolving in a direction in which the traditional boundaries are becoming blurred and in which the collaboration is dictated by neither market nor hierarchy. For him, the idea that economic exchanges could be usefully arrayed along a continuum – with the discrete market transaction at one end and the highly centralized firm at the other – is far from satisfactory. He argued that the historically new organizational forms do not represent the ends of the continuum, neither can they be considered mere hybrids along it. He refers to network forms of exchange, which “enable the small firms to gain an established foothold almost overnight”.¹⁰ Hierarchies, markets and networks all represent historical organizational types, each with their own qualitatively different logic and performance. Reciprocity and trust rather than price or authority are characteristic of network organizations.

Firms are seeking to combine their strengths in collaboration that is much broader and deeper than the typical marketing joint ventures and technology

⁸ Williamson, O., *Markets and Hierarchies: Analysis and Antitrust Implications*, Free Press, New York 1975.

⁹ Powell, W., *Neither Market Nor Hierarchy: Network Forms of Organization*, Research in organizational behavior 1990.

¹⁰ Ibid. p. 299.

licensing of earlier times. As examples of these new ventures, Powell names novel cooperative relationships with suppliers, collaboration among several small firms to facilitate research and product development, and new forms of external R & D collaboration among previously unaffiliated enterprises.¹¹

2.2 The customer as a producer and the producer as a customer: new forms of collaboration in business

Network relations based on reciprocity, mutual benefits and openness imply a remarkable change in inter-organizational relations, traditionally mainly characterized by discrete transactions and competition. Partnerships and joint production require that firms that used to compete with each other now build on long-term collaboration. They are simultaneously both producers and customers in long, networked production chains. Earlier a firm was typically a customer only at the beginning of the production chain, when it bought raw material, for example. After that, it took care of the production, marketing and delivery of its products. Today production chains are more complex and diverse, and the firm is more often also a customer at the end of it. A company that used to deliver and install the products it had made may now buy the installation from a specialized company. What is important in securing the satisfaction of the final customer is the collaboration and communication between the firm responsible for the production and the one taking care of the installation.

More and more often, too, the customer is a partner in the design or production process. Co-configuration, introduced as an emerging type of work organization by Victor and Boynton, could be described as an ongoing relationship between the customer, the product and the company. "When a firm does co-configuration work, it creates a product that can learn and adapt, but also builds an ongoing relationship between each customer-product pair and the company"¹². The customer retires from the role of the traditional client who places the order and receives the readymade product, and instead, participates in the development of the product as a partner among the producers. Unlike previous work organization, co-configuration never results in a finished product. Instead, a living, constantly changing network and a long-term relationship develop. Co-configuration and the phenomenon of key customers becoming partners in product design are typical in business areas in which the product requires continuous customizing - stepwise product development and sustained dialogue - between producer and customer.

Operating across organizational boundaries, co-configuration and reflecting on one's own task in relation to those of other actors in the network all require different kinds of capabilities than activity within fixed organizations and groups. In a similar vein, it also requires preparing and conducting the joint businesses in ways not covered by traditional contract law. Rather than controlling the execution of contractual details and legal paragraphs, the important questions deal with how to complete the joint project and finish the product despite possible problems, and how to continue collaboration in the

¹¹ Ibid. p. 314.

¹² Ibid. p. 195.

future. These kinds of questions have recently opened up a new perspective on the Finnish contractual debate, and little by little have broadened the phrasing of the traditional contract law toward "proactive contracting"¹³. Proactive contracting values the practical challenges and pressures faced by practitioners in everyday contracting practices, and promotes the view of contract law as supporting the creation and maintenance of business transactions.¹⁴

3 Contracts in the Turmoil of Business

Contracts and contracting could be regarded as means by which individuals and collectives direct and control their relations with other individuals and collectives. This is the basic starting point, regardless of whether the focus is on simple, short-term transactions or long-term, sporadically evolving collaboration. Contract law has traditionally concentrated on questions relevant to relatively simple and uncomplicated contractual relations, in which opposing interests and competition are assumed to characterize the relation.¹⁵

Nystén-Haarala¹⁶ emphasized that the simple sale of a good is the model of contract typical of markets. Due to this historical connection between the contract type and the governance type, the simple sale of a good is not an appropriate contract type for the organizational forms Williamson calls "hybrids", for those that Powell regards as a historically new network type of governance in business life.

Nystén-Haarala argued that, given the recent development in business, long-term contracts that require constant re-working and negotiation between the parties are more appropriate than simple sales contracts. Long-term contracts are always incomplete, which means that they cannot be planned well enough in advance to operate perfectly in today's uncertain world. They are constantly under construction: they have to be completed, revised and specified. Neither can they be maintained in the spirit of competition and opportunism. Instead, they necessitate a fundamental transformation from opportunistic thinking towards mutual trust and reciprocity.

The focus seems to be shifting from once-and-for-all contracts towards *contracting*. As early as in the 1970s, Ian Macneil¹⁷ described long-term relations in a way that offers some insight into the world of networked business

¹³ See the first Finnish book on proactive contracting, edited by Pohjonen, Soile, *Ennakoiva sopiminen* [Proactive Contracting], WSOY, Helsinki 2002.

¹⁴ Managing business transactions and relationships has been considered as one of the main *functions of contracts*, originally presented by Helena Haapio and Vaula Haavisto in the recent article *Sopimusosaaminen: tulevaisuuden kilpailutekijä ja strateginen voimavara*. [Corporate Contracting Capabilities: Emerging Source of Competitive Advantage and a Strategic Resource], Yritystalous – Leader's Magazine 2/2005. See also Haapio's article in this volume.

¹⁵ Nystén-Haarala, S., *The Long-Term Contract. Contract Law and Contracting*, Kauppakaari, Helsinki 1998.

¹⁶ Ibid. p. 10.

¹⁷ Macneil, I., *Contracts: Adjustment of long-term economic relations under classical, neoclassical and relational contract law*, Northwestern University Law Review 1978.

relations. Macneil argued that the fact that society is becoming more and more complex implies that flexibility is becoming ever more important in business relations. This means, in practice, continuous additions to terms of trade. He spoke of the need to focus on the relations, not on the contracts themselves. He used the concepts of relational contracting and relational contract law to describe contractual relations, characterized by long duration, flexibility and the tolerance of uncertainty. A contractual relation appeared to him more like a relationship than a contract – a relationship that changes as times go by, that is kept up through interaction and communication, and that is focused on retention.

The focus on contracting and long-term contractual relations has represented one attempt to open up a new perspective on contract law in the transformation of economic activity. Similarly, the debate on trust in economic relations¹⁸, and the consideration of networks in terms of social capital¹⁹ have brought new perspectives on traditional contract law. Trust is essentially included in close co-operation, and it evolves in the interaction in the course of time. The trust that is needed and constructed in network collaboration affects the kind of contracts that are collectively drawn up and how. However, it cannot be assumed that trust will displace contracts, or that networking could be understood solely as a trust-based relationship. The increasing interest in trust and other non-contractual elements has revealed that boundaries between the formal and the informal have become blurred. Multi-organizational studies have shown that even informal practices are embedded in or reinforced by institutional arrangements. Trust may be made visible in the form of contracts and other documents regulating the process of collaboration²⁰.

Organizing production increasingly as multi-actor networks is an important challenge for the contractual understanding of business relations. How might new forms of contracting practices be developed to account for the demands of multi-organizational collaboration? In general, what are the characteristics of contracting in networks?

I have thus far suggested that multi-organizational networks have been understood in recent academic debate as an emerging form of organizing work and production, which is different from historically earlier forms. In terms of contracting, I find two developmental trends especially important:

1. The object of the contract – what is agreed upon – is becoming more indefinite and complex, for example in the shift from ready-made

¹⁸ See, e.g. De Laat, P., *Research and Development Alliances: Ensuring Trust by Mutual Commitments*. In Ebers, M. (Ed.) *The Formation of Inter-Organizational Networks*, Oxford University Press, Oxford 1997; Fukuyama, F., *Trust: the social virtue and the creation of prosperity*, Free Press, New York 1995; Ring, P.S., *Processes Facilitating Reliance on Trust in Inter-Organizational Networks*. In Ebers, M. (Ed.), *The Formation of Inter-Organizational Networks*, Oxford University Press, Oxford 1997.

¹⁹ See, e.g. Cohen, D. & Prusak, L., *In good company: How social capital makes organizations work*, Harvard Business School Press, Boston 2001; Woolcock, M., *Social Capital and Economic Development: Toward a Theoretical Synthesis and Policy Framework*, Theory and Society 1998.

²⁰ Toivainen, H., *Learning Across Levels. Challenges of collaboration in a small-firm network*, University of Helsinki, Department of Education, Helsinki 2003, p.145-146.

products and components to full-package services and life-cycle products, or innovations and competence.

2. Alongside the competition that primarily belongs to business life are emerging forms of collaboration that take reciprocal cooperation and combined interests as their starting point. Instead of being only means of exchange, contracts seem to have become also means of co-operation.

My aim in the following is to structure the developmental dimensions that seem to be significant in outlining the distinctive features of contracting in networks.

The starting point of a contract is that something is exchanged. The object is relatively determined when a product or component transaction is agreed upon. It is somewhat more indefinite when the exchange involves processes and services or knowledge and competence rather than finished and acknowledged products. In its vaguest form, the object of the contract may be mere options for the future – concerning what might be gained and created together. For instance, research and development cooperation for the creation of new technology often begins from fuzzy ideas, far from finished products. Compared to the exchange of finished and fixed products, the exchange relation is bound to be more dialogical when it involves indefinite objects, the exchange of which rests on the transparency of activity and the exposure of competence and know-how.

The nature of exchange can also be described from the perspective of the mode of interaction, that is, as opposing interests or as mutual collaboration and joint interests. It has been characteristic of traditional contract law to presuppose the parties' interests to be opposing and exclusionary. Recent organizational literature has questioned the game-theory premise of the individual's purely rational and black-and-white intention to gain, however, and drawn attention to the advantages of collaborating and successfully combining different interests. "The rise of the Network Society"²¹ and the whole network boom, described and analyzed in organizational studies²², signaled a shift in the logic of economic and social relations, and anticipated the understanding of networks as a potentially new form of socio-economic organization beyond markets and hierarchies. Trust was introduced as the primary governing mechanism of networks in place of price as the market mechanism and authority as the mechanism of hierarchies²³.

The simple sale of a good is an example of a discrete transaction in which a fixed and ready-made product shifts from one owner to another. The object of the exchange is predetermined. A contract, written or oral, secures the interests of both parties, which traditional contract law assumed to be opposing.

²¹ Castells, M., *The rise of the network society*, 2nd edition, Blackwell, Oxford 2000.

²² To name a few, Thompson, G., Frances, J., Levacic, R. & Mitchell, J. (Eds.), *Markets, Hierarchies and Networks: The Coordination of Social Life*, Sage Publications, London 1991; Nohria, N. & Eccles, R.G. (Eds.), *Networks and Organizations: Structure, Form, and Action*, Harvard Business School Press, Boston, Mass. 1992; Alter, C. & Hage, J., *Organizations Working Together*, Sage Publications, London 1993.

²³ Bradach, J.L. & Eccles, R.G., *Price, Authority and Trust: From Ideal Types to Plural Forms*, Annual Reviews in Sociology 1989.

As Stähle and Laento²⁴ state, an embryo of companionship is included in even the most simple sale and purchase event. It is not only a question of competition, and firms can recognize a mutual interest in some area suitable for partnership. Subcontracting is an example of inter-firm cooperation with a relatively thin interface between the companies that is possibly only of short duration. The company puts the subcontracting out to tender and buys readymade products or components in order to avoid production peaks or to outsource some activities requiring high-cost special knowledge. In this case, networking mostly involves combining different products or part-processes. Collaboration is based on documents specifying the parties' roles, performance and responsibilities. Trust emerges when the partners act in compliance with the contract²⁵.

When we focus on new forms of work organization, such as strategic alliances, joint ventures, small-firm networks, system supply or co-configuration, it seems we are looking at work in which competences are often integrated across organizational boundaries and in which the object of the joint attempts (and of what is agreed upon) is often a fragile and preliminary vision, constantly moving and open to reformulation, correction, revision and questioning.

Networked collaboration, in which the companies try to generate and construct "products that are not yet there", is especially common in rapidly developing domains such as information and communication technology and biotechnology²⁶. These companies are charting unknown waters, in which the developmental leaps can rapidly redirect their business and production. When basic research produces more potential products than any company can commercialize, strategic alliances assume a vital role in the exploitation of ideas that the company itself cannot promote²⁷.

The increasing complexity of science and technology has, in these realms of fast improvement, led to a situation in which no company alone can rule the several sub-domains needed in commercializing an innovation. The birthplace of an innovation is located in a network of several actors and companies and not in one firm²⁸.

Stähle and Laento²⁹ call these innovation-oriented networks strategic partnerships: the companies do not exchange their knowledge, but share and combine it, aiming at new services and products. A company delivers its knowledge and competence to the partner, who absorbs it in its own competence. This merging creates a brand-new earning logic. Partnership not only requires unconditional trust, but also entails dependency, as the

²⁴ Stähle, P. & Laento, K., *Strateginen kumppanuus – avain uudistumiskykyyn ja ylivoimaan*, WSOY, Helsinki 2000, p.77.

²⁵ Ibid. p. 82-85.

²⁶ Powell, W.W. & Brantley, P., *Competitive Cooperation in Biotechnology: Learning Through Networks?* In Nohria, N. & Eccles, R.G. (Eds.), *Networks and Organizations: Structure, Form, and Action*, Harvard Business School Press, Boston, Mass. 1992.

²⁷ Ibid. p. 372.

²⁸ Ibid. p. 370-372.

²⁹ Ibid. p. 93-95.

collaboration derives from a remarkable sharing of intellectual capital³⁰. Inter-firm business networks could be understood as important networks of learning³¹ in which knowledge and expertise are transferred from one company to another, requiring management and leadership that is different from the traditional hierarchical system.

In order to be profitable and innovative, partners aiming at new products and services need to cross organizational boundaries and to be open, responsive and transparent in their own activity. Openness, however, includes the risk of vulnerability: in order to innovate, all partners have to reveal their own competence as well as incompetence. By the same token, it facilitates malpractice and damage. Hamel³² questioned the straightforward impression of a good partner, and argued that openness and cooperation may also encourage opportunism and promote the maximization of individual gains from the network joint profits. At the same time, however, competitive activity within a network jeopardizes the collective output and the benefits to be shared³³.

Collaboration in networks and partnerships seems to require open dialogue and negotiation on the one hand, and thorough preparation for competition and the management of the vulnerability caused by the collaboration itself on the other. Collaboration and competition are the continuously present, contradictory elements of partnering, and also activity modes on which varying weight is placed in different phases of a process. Networked business includes situations, colored by opposing interests, in which cooperation turns into competition, such as when a joint idea begins to evolve into a concrete product, full of economic potential. There are also situations in which the actors consciously avoid cooperation, such as in the early development of a business area when the competition to be first on the market is at its height.

3.1 The significance of contracts in collaborative ventures

If we look at inter-firm collaboration in terms of whether it is based on the assumption of opposing or joint benefits, and whether the object of contracting is a ready-made or an emerging, new product, it seems that the requirements for contracts and contracting are different. Buying and selling finished products, as well as supplying readymade components, services or production processes, are relatively easily governable by contracts. The interests and intentions connected to clearly defined products are easier to communicate clearly and unambiguously.

Contracting is far more complicated in networks aimed at producing new products or services. Having studied product development in biotechnological

³⁰ See also Nystén-Haarala, p. 35.

³¹ Blackler, F., *Knowledge, knowledge work and organizations: an overview and interpretation*, Organization Studies 1995; Larsson, R., Bengtsson, L., Henriksson, K. & Sparks, J., The Interorganizational Learning Dilemma: Collective Knowledge Development in Strategic Alliances, Organization Science 1998; also Toivainen 2003.

³² Hamel, G., *Competition for Competence and Interpartner Learning Within International Strategic Alliances*, Strategic Management Journal 1991.

³³ Larsson et al.

companies, Powell & Brantley³⁴ concluded that the logic of inter-organizational agreements was complex. The arrangements resemble neither the explicit criteria associated with arms-length contracting, nor traditional hierarchical control. Both cooperating partners recognize that pooling their resources may result in mutual benefits in the future. When the relationship develops and joint interaction and problem-solving take place, a common understanding is reached about what kind of knowledge the partners can offer. It has been argued that collaboration is controlled not so much by contracts as by the interdependence between the partners and the need for securing one's own reputation - the phenomenon Axelrod³⁵ refers to with the term "shadow of the future".

Opposing views on the significance of contracts have also been put forward. For example, Taskinen³⁶ stated that when it comes to high-tech product development, companies can no longer gain competitive advantage through advanced technology: it rather depends on their way of using, applying and delivering the technology through an appropriate networking model and by dating the network relationships according to the changes. He argues that trust in collaboration, based on rewarding experiences, was characteristic of earlier business relations, which were more stable than present ones and which matured more slowly. Contracts replace trust in networks and offer the only concrete hold on allocating risks and benefits.

Macaulay conducted an empirical study of contracts and their significance in business as early as in 1963, and found out that detailed contracts were used only seldom. He wondered why relatively non-contractual practices were so common, and found several answers. Firstly, a contract was not needed, if other devices served the same functions: standardizing the product by having an accepted description or some form of security to guarantee quality was one example. Secondly, techniques of risk avoidance or risk allocation could be used for foreseeing possible defects in the product or performance. Thirdly, business networks with their personal contacts included several social and psychological mechanisms that restrained selfish behavior and in that sense made the contracts unnecessary. Similarly, the parties were concerned with their business reputation, and desired to continue successful business in the future, which could also replace contracts³⁷.

Macaulay reported in his study³⁸ that the businessmen and lawyers he interviewed not only considered contracts unnecessary, they also saw them as having undesirable consequences. They were afraid that detailed negotiated contracts might get in the way of creating good exchange relationship with the parties, and that careful contract negotiations might retard and complicate getting the deal. Careful and time-consuming planning indicates a lack of trust

³⁴ Ibid. p. 378.

³⁵ Axelrod, R., *The Evolution of Cooperation*, Basic Books, New York 1984.

³⁶ Taskinen, T., *Sopimisen arvontuotanto verkostoituvalle tuotekehityshankkeelle* [The surplus value of contracting for a networked R & D project], in Pohjonen, S. (Ed.), *Ennakoiva sopiminen*, WSOY, Helsinki 2002, p. 84, 90.

³⁷ Macaulay, S., *Non-contractual Relations in Business: A Preliminary Study*, American Sociological Review 1963, p.199-200.

³⁸ Ibid. p. 201.

and may even turn a cooperative venture into antagonistic horse-trade. The adjustment of exchange relationships and possible dispute solving by litigation were also seen as cost consuming.

On the basis of his empirical findings Macaulay wondered why contractual practices ever existed if they were unnecessary and even harmful to the cooperative relationship. He realized that carefully planned agreements were made whenever the advantages of having a contract were considered bigger than the possible disadvantages. The situations favoring its use included 1) when there was a likelihood that significant problems would arise in the exchange relation because of the *complexity of the agreed performance* over a long period, 2) when the *degree of damage* in case of default was thought to be potentially *large*, and 3) when contract planning served the internal needs of the organization: a fairly detailed contract could serve as *communication device* within a large corporation, for example³⁹.

From the above discussion on the characteristics of collaboration in networks, it appears that the gradually evolving nature of what is jointly produced in networks and partnerships makes carefully planned contracting and forecasting difficult. At the same time, the circumstances under which Macaulay found contracts to be most useful prevail: what is agreed upon is obscure and complex; the risks of combining know-how and intellectual capital grow exceptionally high in strategic partnerships; and the value of contracts as a communicative tool is obvious as the relationship requires openness. The major challenge for contract law and contracting practices is in meeting the contradictory demands arising from networking.

4 Conclusions

Collaboration in networks is economic activity based on contracts. This starting point seems to imply that formal, written contracts may be more and more important in the future in planning and maintaining network collaboration. At the same time, the implication is that the detailed, arms-length contract does not match the informality, reciprocity and unforeseeable nature of the networked business. The nature of the contract and of its role in the governance of cooperation is evidently changing. A once-and-for-all contract stored in a safe seems to be an unsatisfactory tool for managing and understanding collaboration with its unforeseeable, multifaceted nature and elements of surprise. We need to be more aware of the concrete, everyday processes and interaction between collaborating parties if we wish to fully understand what was intended and agreed upon.

It looks as if contracts and contracting are taking on new forms, and are becoming closely intertwined with the actual production processes and interaction within cooperation. Contracts are camouflaged in the production documents of the joint project: project plans, vision papers, meeting protocols

³⁹ Ibid. p. 202.

and notes, deadlines communicated by e-mail and pictures on flap boards all concretize the goals, intentions and restrictions of the intended relationship.

When the issue to be agreed upon is indefinite and something that will materialize only in the future, it is impossible to settle all of the details beforehand, even if this was desired. For example, the surprise elements inherent in R & D projects, as well as the long duration of the processes and the changes in circumstances, expand the temporal dimension of contracting from the beginning to cover the complete cooperative process.

4.1 Contracts as scripts for collaborative ventures

I attempt in the following to assess the role and significance of contracts in collaboration by examining the material (subject - object) and social (subject - subject) dimensions of contracting simultaneously. Relying on Raiethel's⁴⁰ and Fichtner's⁴¹ analyses of the three developmental phases of instrumental and communicative relations, Engeström⁴² drew up a model in which there are three levels of interaction. *Coordination* refers to the normal scripted flow of interaction in which participants follow their scripted roles and concentrate on performing their assigned actions. The script is coded in written rules or tacitly assumed traditions and habits. It coordinates the participants' actions "from behind their backs", without being discussed or questioned. In interaction described as coordination, the focus of the participants is on themselves and on presenting their own problems and ideas, and not on the script or the joint object or problem.

Cooperation refers to modes of interaction in which the participants do not focus on performing their assigned roles or on presenting themselves and their individual problems, but rather concentrate on shared problems, and seek mutually acceptable ways of conceptualizing and solving them. They go beyond the given script in this search, although they do not explicitly question or redefine it.

Reflective *communication* refers to interactional modes in which participants focus on questioning and reconceptualizing their interaction in relation to their shared objects. Both the object - the joint problem - and the script are reconceptualized.

Empirical studies have shown that transitions to reflective communication are often temporary, quickly bypassing periods in the interaction, but even as such, they are crucial for the development of activity and learning in the group. Successful development of the activity requires examination of both the object

⁴⁰ Raiethel, A., *Tätigkeit, Arbeit und Praxis*, Campus, Frankfurt am Main 1983.

⁴¹ Fichtner, B., *Co-ordination, co-operation and communication in the formation of theoretical concepts in instruction*, In Hedegaard, M., Hakkarainen, P. & Engeström, Y. (Eds.), Learning and teaching on a scientific basis: Methodological and epistemological aspects of the activity theory of learning and teaching, Aarhus Universitetet, Psykologisk Institut, Aarhus 1984.

⁴² Engeström, Y., Brown, K., Christopher, L.C. & Gregory, J., *Coordination, cooperation and communication in courts: Expansive transitions in legal work*. In Cole, M., Engeström, Y. & Vasquez, O. (Eds.), Mind, culture and activity. Seminal papers from the Laboratory of Comparative Human Cognition, Cambridge University Press, New York 1997, p. 372-373.

and the way in which it is discussed. The same implies to contracting as an activity. What is said about scripts and their role in interaction seems to apply to contracts. It is not enough for each party in a collaborative process to focus on its own performance and assigned tasks. The central element of collaborative ventures is the joint object - what is produced in the process and what the collaboration aims at. The procedures needed for working out the object cannot be entirely determined in advance, which is why the collaborative relation itself as well as the contracts governing it also have to be considered every now and then (Figure 2).

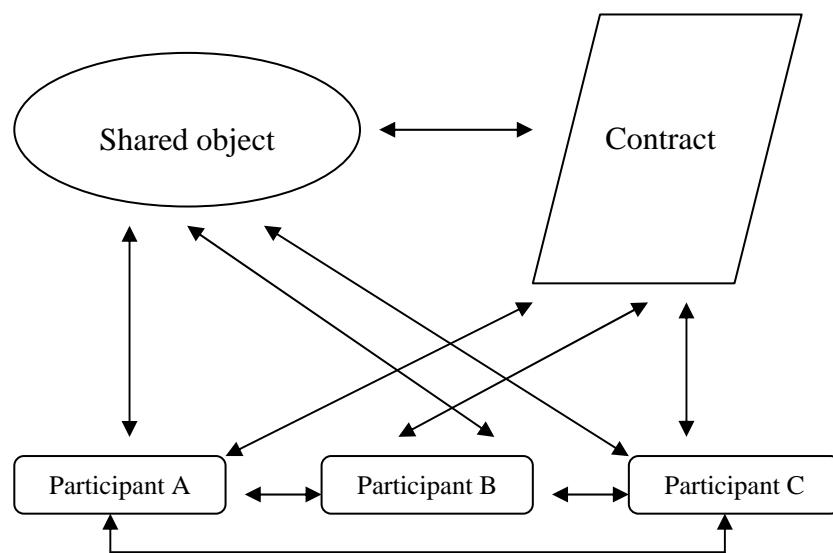


Figure 2: Contracting as reflective communication

Reflective, communicative contracting in network collaboration and co-configuration includes constant negotiation not only on the joint production, but also on the content and forms of the contract relation. Long-term contracting and the continuous conceptualization and reflection of the collaborative relationship replace the once-and-for-all contract. What is apparently typical of contracting in networks is forecasting stepwise and little by little, and anticipating the changes in the relationship gradually. The relationship is continuously under negotiation and the collaboration is agreed upon in detail only as far as the path forward can be seen.

A contract as a script is a metaphor that has its origins in understanding contracts as tools for collaborative ventures. Another tool-oriented point of examination is to study the different functions that a contract may serve in business collaboration. Together with Helena Haapio I have preliminary suggested a categorization of five different functions of contracts⁴³. In the future, the empirical examination and trying of these functions is of special importance.

⁴³ See Haapio and Haavisto 2005, footnote 14.

1. Managing business transactions and relationships
2. Creating, protecting and allocating value
3. Allocating and managing risk
4. Communication and control
5. Problem prevention and dispute resolution

4.2 Methodological challenges in studying contracting in networks

Contracting in networks appears to be an interesting and topical research object, requiring new approaches to the theoretical, methodological and empirical study of contracts. The separate perspectives of law, organization theory and business management soon reach the limits of their own disciplines, as multifaceted contracting in networks seems to demand interdisciplinary approaches. Wehner, Clases & Bachman⁴⁴, who studied the dynamics of producer-supplier relationships in the German automobile industry, argued that single-disciplinary approaches to the analysis of inter-organizational relationships are rapidly losing their explanatory power. In particular, approaches that build on abstract models of ideal markets and formalistic concepts of rational decision-making have failed to grasp the growing complexity of social relations in the contemporary economic world.

When contracts are examined in terms of the organizational changes in production, what is significant are the contracting practices in the context of ordinary business - the everyday communication, interaction and cooperation that the parties use for organizing their production. The starting point of contract law has traditionally been the contracts themselves, and it is within this context that business relations have been considered. Firms invariably emerge for the sake of accomplishing their business purposes, however, and not for the sake of making contracts.

This starting point directs research on new emerging forms of contracting in the context of business collaboration to a shift in focus from the readymade contract towards contracting in more general terms⁴⁵. Wehner, Clases and Bachmann pointed out that actual processes of inter-organizational cooperation are not just outcomes of anticipated and planned forms of joint activity. They are strongly influenced by the process-related experiences of the actors who face concrete events that deviate more or less from the planned organization of work. Under these unanticipated circumstances of everyday practice, how are contracts and other rules governing collaboration formulated and composed? How are they interpreted when practical problems arise? How is collaboration maintained? How are the differing views reconciled? These are examples of research questions that concentrate more on analyses of real collaboration and local production processes. When contracts and contracting are scrutinized as aspects of the business – inter- and intra-organizational collaboration – we need

⁴⁴ Wehner, T., Clases, C. & Bachmann, R., *Cooperation at work: A process-oriented perspective on joint activity in inter-organizational relations*, Ergonomics 2000, p. 983.

⁴⁵ For the analysis of empirical contract law scholarship, see e.g. Korobkin, R., *Empirical scholarships in contract law: possibilities and pitfalls*, University of Illinois Law Review 2002.

multidisciplinary research methods that allow for observation of concrete, actual collaborative processes. Focusing on the everyday flow of collaborative production, on the possible disturbances, ruptures and innovations within the processes, and on the communication and negotiation between the collaborating parties, could bring valuable new insights into the nature of contracting and its relevance in the business life of today.

Proactive contracting⁴⁶ proposes a new kind of legal thinking, aiming at preventing legal problems and at attaining the goals of the cooperative venture. It promotes an enabling aspect while viewing the contract as a tool for the cooperating parties to use in carrying out their joint business efforts. Contracting in networks also lays down a critical challenge to the novel approach of proactive contracting, as it *both* emphasizes the anticipatory planning and forecasting of contractual relationships *and* questions the possibility of accurate forecasting. What Durkheim⁴⁷ wrote about the nature of contracts in general applies absolutely to networks:

“It is necessary therefore to pre-determine the share of each, but this cannot be done according to a preconceived plan. There is nothing in the nature of things from which one can deduce what the obligations of one or the other ought to be until a certain limit is reached. Every determination of this kind can only result in compromise. It is a compromise between the rivalry of interests present and their solidarity. It is a position of equilibrium which can be found only after more or less laborious experiments.”

⁴⁶ See footnotes 13 and 14.

⁴⁷ Durkheim, E., *The Division of Labor in Society*, Free Press, New York, 1964, p. 213.