

Contracts – a Twist of Pearls: a New Metaphor to Enable a Novel Perception

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Abstract

Contracts are usually seen as single entities and containers which entail all there is to an agreement. Most often, they are seen as legal documents. Thus, they appear as final documents that contain the will of the parties, which in the case of a dispute is interpreted with legal interpretation rules. In business collaboration, contracts should aid in knowledge co-creation and knowledge sharing. They should clarify and promote collaboration towards the common goal in question. In practice, contract containers do not entail all of an agreement and even less in a generic form that is usable for all professionals involved. Proactive contracting and contract visualization are approaches that see contracts as communication tools and aim at developing them as such. In this paper, we attempt to change the viewpoint from that of a contract as an entity to that of a contract as a process. In the processes of doing business there are many points where decisions and agreements are made; some have legal, technical, economic, and other significance, some have not. In any case, contracts are more like *twists of pearls* than individual containers. Definitions, decisions and agreements in a business process are created and specified gradually. The idea, the will and the circumstances tend to change along the process. Taking the business, its processes and needs as a starting point we might get rid of the idea that contracts are separate legal documents that have nothing to do with the operational action. Instead, we could begin to understand contracting as decisions made in and for certain points in the process, intertwined with the strategy process. Information modelling might be one way to realize this idea in practice.

Keywords

Contract, strategy, metaphor, boundary object, process

1 Introduction

To put it simply, the traditional image of a business deal is a selling and buying transaction between competing opponents. They seal their agreement with a contract to be on the safe side. If a dispute arises, the contract entails the final word. Contracts are legal documents that define particular deals. Similarly, formal, deliberate strategies include detailed plans that define the competitive, marketing, and other policies of the organizations. These images represent action points to freeze plans and agreements into formal documents. Even if drafting and implementing of contracts and strategies are discussed, how the ideas are actually formed and implemented is not always taken seriously.

Today's reality is quite different from the image described above. Especially in service industries, a business process often appears as a co-creative collaboration that needs to be planned together by the collaborating parties. In large business networks the need for clear communication becomes apparent. These images present a picture of activities, the need for co-creating and communicating, being in a collaboration process and doing something together. A process is by nature reflective, dynamic and continuous – a flow of decision points. A successful process includes enabling structures, decision and re-evaluation points. Collaboration is a human activity that is based on human ways of thinking, feeling, and so forth. When a process is intended to be heading towards a particular direction, a vital question is how this is facilitated. Simply writing intentions down in strategies and contracts does not make them happen; design methods such as visualizations offer tools for this. Contracting, strategizing and visualization are not ends in themselves but provide the means to an intended end. Their *raison d'être* is to enable a functioning collaboration and action to achieve an outlined objective together, developing the kind of services that are desired. In this paper, contracts are not seen as legal documents but as ongoing processes. From this viewpoint 'contract', 'contracting process', and 'contract relationship' are almost synonyms.

If strategies are observed from the standpoint of a contracting process, they are intended to frame contracting as much as legislation, regulation and organizational policies do. Contracting is based on the needs and plans of the organizations and their stakeholders. Its main task is to aid in reaching these goals, to play its part in implementing the strategies of the organization. But the influence and even the existence of the frames mentioned above are not always recognized. Parties to the contract may be ignorant about mandatory legislation; and they might not understand that there is legislation that will fill the gaps of contracts in a legal dispute. And the demands of strategies of organizations may be forgotten during the contracting phase.

The most demanding contracting environments, such as huge networks or service industries, are based on the parties' abilities to co-create and share knowledge. They require quite different tools from traditional legal contract documents. New mechanisms have been developed, such as alliance agreements, but they have not quite abolished the dominating image of contracts. They are seen as something additional: "more than just a contract" (Sakal 2005). It is quite common to find that even the core components of contracts – such as construction plans – are not considered as parts of the contract; only the legal part is considered to be 'the Contract'. Jens K Roehrich and Michael A Lewis (2010) express the view that "contractual and relational mechanisms are *distinct* but *inseparable* parts of a governance continuum, involving multi-level interactions and transitions". While welcoming their process view and perception that contractual and relational governance are equally unreliable as standalone safeguards, we do not see these two as distinct. Contracts are decisions and frames to promote collaboration, which includes planning and agreeing about mechanisms to enhance building relational aspects such as trust. We might argue that Roerich and Lewis could share our view if they had not adopted the definition of contracts as legal artefacts existing mainly for risk prevention purposes.

Even from the legal viewpoint, in most countries contract documents are not the only relevant interpretation sources. Oral promises and agreements, for example, count as well if they can be verified. From an information context, contract documents follow the logic of law: they attempt to constitute a legally sound and coherent whole. Thus, they are inter-legal papers, drafted by lawyers – or imitating lawyers – for lawyers. Legal contracts are not drafted for contracting purposes but to be interpreted in a legal dispute. The art of interpretation is the focus in law. However, preventive law (eg Brown 1950), relational contracting (eg Macneil 1978) and proactive contracting and law (eg Haapio 2013) are examples of approaches that attempt to further good contracting and legal practice for the benefit of the parties. In the construction industry it is common to create mechanisms such as meetings to promote social and trust-building interaction, which is one way to put the ideas of relational contracting into practice. Proactive contracting focuses on promoting success in contracting collaboration – that is, enabling realization of the desired outcomes. In her doctoral dissertation “Next Generation Contracts: A Paradigm Shift” (2013) Helena Haapio sees contracts as managerial instruments, apart from being legal instruments (Haapio 2013, 27 on various views of contracts presented in research). The Proactive Contracting approach has been co-developed in a collaboration network between cross-disciplinary scholars and cross-professional experts in contracting practice.

The legal system is indirectly very influential in the contracting practice, as it has focused attention on issues relevant in today’s legal interpretation. Contracts are written to be legally coherent and in legal language. Their legal significance is not often clear to others. Correspondingly, technical drawings, as parts of contracts, form an informative whole for engineers but may be difficult for other professionals to understand. In a cross-professional collaboration the whole should be understood by all in order to be co-created. In the real world contracts are built gradually as well as being revised in line with changing circumstances. Their function is to clarify planning and definition as well as to be repositories of agreements. The significance of the legal, technical and financial aspects (to name a few options) of the agreements need to be understood. The social expediency of the core of law – the dominance of interpretation based on legal logic – is seldom questioned in legal discussions, but aspects which would take into consideration the *process* nature of contracting have been presented. However, as the focus of legal discussions is in legal interpretation in legal disputes the process nature has not been much pondered from the contracting viewpoint. In this paper, we emphasize the *proactive process* view of contracting.

2 Metaphors framing realities

The images people build of phenomena such as contracts have significance in contracting practice. It has been argued that human thought processes are largely metaphorical and that our conceptual system is mostly metaphorically structured (Lakoff and Johnson 1980). When metaphors are understood as our way of having a reality, their significance is in how they *work*, what logic and reality they constitute and *enable* (Winter 2001, 58, 65-66). When human cognition is seen as metaphoric, internalized metaphors enable or disable particular

kind of thinking. 'Contracts as legal documents written for legal disputes' is an understanding that represents a metaphor 'contracts as containers'. Legal contracts are traditionally seen as final expressions of the will of the parties – that is, to contain this will. In a legal dispute the container is opened with the key of the logic of legal interpretation.

Michael J Reddy has presented the idea of the Conduit Metaphor in his article "The Conduit Metaphor – A Case of Frame Conflict in Our Language about Language" (1979). He shows how people use expressions like "Try to pack more thoughts into fewer words" which reveal thinking that meanings are right there in the words. Meanings are transferred to others in words in which the thoughts have been inserted by the sender to be extracted by the receiver. When this kind of thought-conduit is believed to be in use between people, the relevant task is the sending. Receiving is not in focus. Inside this metaphor the attention is not drawn towards meeting of minds and how that could be brought about. The same applies to the 'contracts as legal containers' metaphor where the inserted information is extracted with a defined key of legal logic.

Knowledge sharing is a central topic in many of today's discussions. It is also essential in contracting. Previously, the term often used was knowledge *transfer*, which represents understanding in accordance with the conduit metaphor. When knowledge is described as being transferred from a person to another, it is seen to remain unchanged, carrying the same meaning for the sender and the receiver. Knowledge sharing, instead, is a process of creating shared understanding. Referring to these discussions Beth A Bechky (2003) states that knowledge is shared through a process of *transformation*, not transfer. In her research members of different communities worked to create common ground. They demonstrated their understanding in ways that allowed the knowledge to be integrated into the context of other communities.

Text interpretation (which legal interpretation is, to a great extent) is mostly based on the idea that the meaning is in the words. This attitude emphasizes the writing phase: the author needs to fine-tune the text to pack everything in there. When the conduit or container metaphor dominates, the first concern is not to help the receivers to 'get the point' but to define the point according to one's own logic. Academic writing is usually a good example of this. Texts are loaded with interlinear meanings. In legal and academic reading the receiver is expected to possess the keys to open the containers. The keys are mastering of legal logic or the academic tradition in question. The opening ability is the core of the receiver's expertise.

As an old saying goes, the finger pointing at the moon is not the moon. This metaphor has often been used by spiritual coaches, who want to emphasize that their readers or listeners should not begin to follow their words. Words are just words that try to show the way, but they are not the way. People who have adopted the container or conduit metaphor see the finger as the moon. Texts are expected to contain the meaning instead of just showing the way towards it. The original task of the finger has been forgotten. The finger itself has become the main object of interest and what it actually points at has become secondary. When our main interest is the moon, the finger itself has no intrinsic value. It might be

changed to a stick or to a camera. Its sole significance is its pointing ability. If the moon moves but the finger continues to point at the former position, it has lost its value to those who want to see the moon; but to those whose focus is the finger it causes no problems. When information is seen as the moon, various means (fingers) may be explored to show it. They are evaluated by their ability to increase the comprehension of the moon. If they seem to have lost their ability to point at the moon because of some changes in circumstances, they are changed to something else. When they are seen according to the container metaphor, they are not easily abandoned: they are not seen as tools but as the very meaning itself.

Legal regulation and contracts have not been considered as communication tools for helping to achieve a desired action (moon) but as textual containers (fingers), which may be opened with the legal logic. The key is the art of legal interpretation. The core of legal thinking is this art. Much of it consists of interpreting words and concepts. If legislation and contracting were, instead, seen as means to create and share meanings and information, various methods to create and deliver the intended idea might be explored. This would mean making the idea clearer to all parties concerned, instead of drafting documents with wording that is intended to be decoded by legally trained people. The core of expertise of many lawyers is this decoding. Thus, abandoning the legal containers will probably not happen easily. However, attempts to improve the functionality and usability of these containers as communication tools might be accepted if they are seen solely as additional clarifications.

Focusing on referring to existing concepts and constructs often amounts to sharpening the wrong tools for gaining bona fide understanding of the nature of the phenomena (Gioia, Corley and Hamilton 2013). This paper suggests that the old images and metaphors concerning contracts are not adequate and prevent people from seeing the contracting reality properly. Understanding based on these metaphors is skewed, which has an influence on the development of new mechanisms. In this paper we attempt to change this metaphor and thus enable new thinking.

3 Contracting documents as boundary objects

To put it simply, business contracts are about defining agreements between parties. Even this element may in fact be missing; the first party may be able to dictate the contract so that more or less the only action left for the other party is to accept. The most essential issue is to define the scope of the contract so that it may be implemented successfully. Contracting realities – business environments, cultures, social systems, legislation, and so forth - vary enormously, and these realities need to be taken into consideration when the contracting collaboration is built. Enabling knowledge sharing differs considerably, whether the collaboration involves a couple of people or enormous networks. The scope and its implementation need to be framed at the start of the contracting process. During the implementation phase the people concerned need to know what they are expected to contribute, for example to demand or deliver. In all the phases of the knowledge sharing

process many kinds of knowledge boundaries need to be crossed between people. Due to different backgrounds, such as profession, education and occupation, people interpret objects differently and talk about them with different words and concepts; and from different contexts the same matters appear differently. Enabling and facilitating collaboration with appropriate tools has been widely discussed in various research fields such as learning, design and knowledge management, to which we have referred in this paper.

Internalized professional comprehensions frame people's conceptions. The concept 'boundary object' has been created to describe mediating artefacts or instruments which could facilitate the crossing of knowledge boundaries (Star 1989, Carlile 2002). Seen from the collaboration viewpoint, contracts and other contracting documents like tenders could also be considered as boundary objects even if in practice they are usually not considered in this way. As boundary objects, contracts might in any case fall into the category of designated boundary objects rather than boundary objects-in-use (Levina and Vaast 2005).

As boundary objects, contracting documents would need to clarify communication: to contribute to the emerging definition of the scope and its mutual perception as well as to enable its implementation according to mutual intentions. In other words: to guide people to act towards the desired target. Unfortunately, today's contract documents are seldom very appealing to most people. Contract visualization attempts to develop contracts that are more inviting and clearer than those of today (see eg Haapio 2013 and included articles). Contract visualization is a subset of knowledge visualization, which aims at making contracts clearer and more user-friendly with the help of information design methods (Passera et al. 2013).

With visualization it is possible to make things concretely visible and thus more comprehensible, which facilitates sharing of knowledge (on the benefits of visual methods see eg Eppler and Platts 2009). In our research project, we have produced the JYSE Visual Guide to the General Terms of Public Procurement JYSE 2009 SERVICES (Finnish Ministry of Finance 2009). In an experimental evaluation, the Visual Guide was compared with the original textual JYSE (Passera et al. 2013). The results of the experiment show that visualization can play an important role in enhancing the understanding of complex documents and have a positive effect on user experience.

If people are expected to familiarize themselves with information, according to the principles of user-centered design, the representations of this information should match the needs of its prospective end-users (Beyer and Holtzblatt 1998). In design thinking, contracting can be seen as an activity of prototyping, as an iterative, evolving and innovative process that is grounded in the participating parties' subjective understanding, as opposed to control-oriented and technical approaches, which strive for objective rationality. Even if contract documents were verbally clarified and visualized and would improve knowledge sharing significantly, it is quite possible that the document form remains too abstract for many of the people who are expected to implement them, for example; more concrete and context-bound boundary objects are also needed. Drawings, prototypes, photographs, and

so forth are commonly used to share knowledge in contracting; but they may not be in sufficient quantity to be useful, they might not be provided in situations where they would be required, and often they are produced without thoroughly pondering how user-friendly the object in fact is for the people concerned.

In Bechky's (2003) research the conceptual drawings by engineers did not aid assemblers who worked with machines in a hands-on manner. Dissimilar working contexts producing dissimilar conceptualization made it difficult for engineers and assemblers to understand one another even in conversations, so technicians acted as mediating boundary spanners between engineers and assemblers by building prototypes. Tangible objects and definitions helped to bypass language difficulties. When a contract is seen as a process it includes many decision and communication points between dissimilar people in various contexts, which require different kinds of boundary objects as well as people who act as boundary spanners (Levina and Vaast 2005) not to mention discussions and meetings. Our focus in this paper is, however, mostly on boundary objects in a process.

In the triological approach to learning, learning is seen as a process of knowledge creation (Paavola and Hakkarainen 2005). Common objects of activity are developed collaboratively in mediated processes. Besides focusing on human participants, the emphasis is on the way people collaboratively develop mediating artefacts or processes of activity. Supportive social structures and collaborative processes are created. The interaction happens through boundary objects and is facilitated by them. Boundary objects are also further developed in collaboration processes. This approach presents the knowledge-creation metaphor of learning or the 'artefact creation' metaphor of learning. This perspective also confirms a need to develop more multidimensional tools in a contracting process.

4 Contracts as processes

Taking the business process and its needs as a starting point, we might get rid of the idea that contracts are separate legal documents that have only a vague connection to the business process and the deal they define because their *raison d'être* is to be interpreted in a legal dispute procedure. Instead, we could begin to understand *contracting as decisions made in and for certain points in the process*. Through this understanding, the attempt to facilitate the contracting collaboration means taking the operation process as the starting point, finding the relevant connection points and pondering how the communication tools used in these points are functioning as boundary objects. When contracts are seen as continuous processes entailing various points of 'meeting of minds', which are connected to and influence each other, contracts appear as a reflective and continuous activity of contracting. An activity follows some methods: enabling or preventing ones.

When the emphasis is on the word *process*, the perspective is that of doing – that is, the *-ing* like *contracting*. From the process standpoint contracts, strategies or visualizations are seen more as contracting, strategizing and visualizing. They are activities in a process, helping it to flow towards desired goals, but goals that are most probably reflectively

changing. In phenomenology, the focus is on movement, like on following the movement of someone's thinking. When the source of understanding is seen to be participation in a reflexive experience, the perfect fulfillment of a plan can be seen as a failure (Parviainen 2006, 50). This would show that no actual reflexive participation has occurred.

When contracts are seen as formal documents distinct from the operation, parties may remain unaware of the legally binding significance of oral or supplementary agreements. In addition, time and money may be wasted in prevention of irrelevant risks while the relevant risks remain unprepared for because the legal evaluation has lacked, for example, the technical understanding of the project in question. Professional expertise cannot produce proper benefit if it has not been adapted to the context. The process understanding of contracts enables the variety of agreement and definition points to be seen as organic parts of cross-professional collaboration. From the process viewpoint it is also easier to comprehend that implementation needs to be prepared for in the early phases of contracting: clarity of obligations, mechanisms for relationship building, checking points, monitoring, and so forth. Parties need to be prepared and committed to fulfill the agreed plans.

In their article "Visual Strategizing" (2009), Martin J Eppler and Ken W Platts bring together the challenges of strategizing and the benefits of visualization as well as emphasizing a process view of visualization, seeing the actual act of visualizing as the vital sense-making activity. They have showed how visualization can improve the strategic planning process, thus considering visualization as a powerful process and management enabler. They have studied strategy processes and examined the points of the process at which visualization can be employed. Eppler and Platts present three practice groups that they found particularly beneficial to the quality of the strategic-planning process: 1) *continuous seeing*, visualizations helped towards an ongoing strategy refinement process rather than being a yearly ritual, 2) *complementary seeing*, different forms of visualizations rather than one single strategy visualization and 3) *connected seeing*, visualizations to span across different phases of the strategy process, helping to transform strategic insights into actions. Eppler and Platts see the matching of visualization methods and strategic situations as a future research challenge.

In our research project, we developed together with our partner organizations a general contracting process model to emphasize its nature as a contracting *process* (eg Pohjonen and Koskelainen 2013). The model illustrates the framing (eg strategies), planning, implementation and follow-up phases. The model aims at emphasizing the wholeness of the process, wiping the legal mist over it and illuminating its basic idea. The model is intended to be used for training and information sharing as well as a checklist. It also includes slides with further information. The test results indicate that the visual model was able to enhance wider understanding of the process even if the user-experimenting span was short (Anttila 2014). The context was public procurement contracting where the competitive tendering "trick-track" increases legal formalities and shadows even the contract nature of procurement. Evelyn M Fenton (2007) has shown in her study how process maps generate and diffuse knowledge in the strategic change process. They simplify the content of the

strategy process, operationalize it by enabling stakeholders to make sense of the change program and its impact upon their work activities and embed the strategy in the implementation tools by making the change concrete. Process maps are effective tools of change as well as promoting a more holistic understanding of the organization's function. They also serve as repositories of knowledge. Fenton states that process maps have the key attributes of boundary objects. They are visual maps of work flows, more easily processed than mission statements, for example.

5 Contracts as implementers of strategies

Seen from the angle of a process, the role of tools in connection to the whole is emphasized. The purpose that tools are expected to serve is determined by the process. The business processes are intended to be guided by strategies and contracts should be tools for worthwhile co-operation throughout the process. Thus, methods should be created to ensure that strategies are implemented in practice and do not remain as empty phrases. The fate of strategies is often the same as that of legal contracts: they are laboriously prepared documents that do not play a role in practice (see eg Noble, 1999; Beer and Eisenstat 2000). Both are often discussed as separate documents instead of as a process: contracting and strategizing. The relationship between these two document types and processes is not widely discussed. To our knowledge there is no literature where contracts are studied as implementers of strategy, rather than studies about strategic contracting. While a limited view has its benefits by allowing a focused study, it often leads to separated study silos; the connections between phenomena studied in different expertise areas are not highlighted.

Contracts are documents that are to be implemented; and on their part they should implement strategies. In Proactive Contracting, the connection has been acknowledged. Contracts are seen as implementing plans like strategies. Larry A DiMatteo, George J Siedel and Helena Haapio (2012) find proactive contracting as strategic in nature when it is seen as a collaboration between business managers and lawyers as well as between business partners. According to them, the strategic use of contracting is to create value and competitive advantages (see also Siedel and Haapio 2010 and Law and Strategy movement) eg with the help of visualization as well as contracts which serve the mutual interest of the parties. Thus, they combine contracting and strategizing.

Value, competitive advantage and mutually satisfying business collaboration may be seen as 'self-evident' strategic goals in business. They may be considered as long-term elements in reaching the profit-making goal of business companies. However, companies of today often include values in their strategic plans. These may also be seen as long-term profit making – for example, creating good brands. The corporate responsibility of companies may cover, for example, human rights and environmental issues. The strategies may, thus, call for requirements for the business partners and *modus operandi*, hence contracts are conditioned by the strategies. This is even more so in public sector organizations as they

exist for much more diverse reasons than companies, so accordingly, the implementation of their strategies (eg in public procurement) is even more demanding than that of companies.

During the history of strategic management, researchers have used numerous different metaphors. For instance, Henry Mintzberg (1987) considered strategies as “weeds in a garden” pointing out that some emergent strategies may need to be uprooted, but some are worth nurturing. As for W Chan Kim and Renée Mauborgne (2004), they refer to competitive battles that turn oceans bloody with their term “Red ocean strategy”, while “Blue oceans” denote undiscovered markets and new industries. The metaphors are strongly evocative, giving very different meanings to the phenomenon of strategy. However, none of them incorporate contracts into the world of strategic management.

6 Contracts as a twist of pearls

To counterbalance the effects of the container metaphor concerning contracts we present the ‘twist of pearls’ metaphor. It attempts to change the viewpoint from that of a contract document to that of a contract as a process. In a business process there are many points where decisions and agreements are made. Some of them have legal, technical and economic significance and so forth, some of them have not. Each of them should be in line with the strategies. They are all pieces of contracts which together form the contract relationship or contracting process in question. A Contract is a *twist of pearls* rather than one individual container. Definitions, decisions and agreements in a business process are created and specified gradually. The idea and the will may develop or be fine-tuned and the circumstances may change along the process.

When contracts are not seen as containers for legal purposes only and/or as conduits transferring information without further effort they may begin to be evaluated as collaboration and communication tools and processes. When a contract is seen as a twist of pearls instead of one document, the process nature of contracting becomes apparent. When the goal of good contracting is not seen solely as a legally sound contract document but as, for example, a service beneficial to all parties, the focus turns to the process of defining the scope of the collaboration and how it will be reached. When the pearls are seen as crystallization points between different professional quarters we may begin to ask by what means the parties attempted to reach a meeting of minds and how well it succeeded.

It is not sensible to execute any kind of long-term plans at the beginning of the process; there is always need for revisions throughout the overall process. In this regard, contracts and strategies are alike. Strategies can also be seen as a twist of pearls, where the twist represents the temporal continuum and the pearls are definition and evaluation points. In both contracts and strategies, the new metaphor emphasizes the continuity, illustrating the phenomenon as simultaneous action, evaluation and revision of plans. From a holistic perspective, all the phases in the process compose a continuum in which forming and implementing, for example, are not separable. Contracts and strategies can be seen as pearls in interweaved twists.

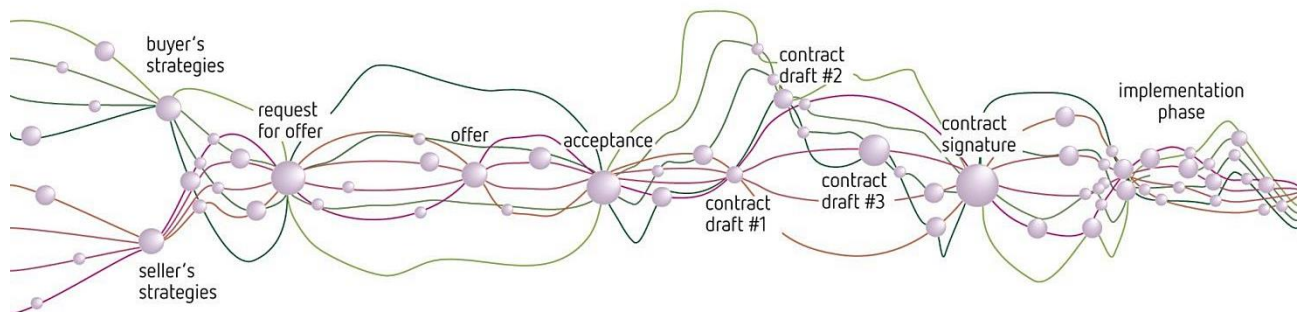


Figure 1 Contracts and strategies as twists of pearls, as intertwined continuums of cross-professional meetings of minds. In addition to the named ones, pearls refer to agreements in negotiations, meetings, and so forth.

7 Discussion

The influence of tools employed is similar to that of metaphors: they enable or prevent particular behavior. Formal strategies and contracts have been adopted as given and have strongly influenced strategizing and contracting practices. What kind of tools could further the adoption of the twist of pearls metaphor?

Information modelling might offer one solution as a contracting domain that has as its starting point the operation producing the contracted product or service. Different business fields would require their own modelling. In the construction industry Building Information Modelling (BIM) is becoming increasingly common; in the UK it will be mandatory in public sector contracts from 2016. Reijo Miettinen and Sami Paavola (2014, 84) find all single definitions of BIM inadequate. BIM should be analyzed “as a multidimensional, historically evolving, complex phenomenon”. It could be defined “as a digital representation of a building, an object-oriented three-dimensional model, or a repository of project information to facilitate interoperability and exchange of information with related software applications”. BIM could also be called “an expansive knowledge domain” (Succar 2009, 370). BIM has raised high hopes as a combination of tools and methods which could further cross-professional collaboration and produce more efficient and transparent processes. It is vigorously advanced but faces still many challenges, for example using BIM during the whole lifecycle of the building has remained an unrealized dream (Miettinen and Paavola 2014).

In BIM, virtual realities and three-dimensional (3D) models are used. In the BIM world, there is a trend to creating fully collaborative BIMs (nD) which include as much relevant information as possible. This would give an opportunity to enhance holistic understanding – to get the big picture – where things agreed in strategies and contracts are seen as

operational requirements and not as separate formal documents unconnected to the operation. Strategies and contracts could be concretely incorporated into the working processes as well as proper mechanisms created for their implementation. When all information has to be added to an information model in a cross-professional collaboration as contracting, all professionals – such as lawyers – need to understand the relations between one's own expertise and the whole of the process. In BIM the participation and information needs of all stakeholders, including end-users, have been considered.

Spatial visualizations such as information models are reconstructions of the real world. Strategies and contracts as textual documents that are separate from the operation might become an outdated approach if the information previously included in them could be incorporated into the operational models. That is, strategies and contracts would not be attached as separate documents; the corresponding information would be added piece by piece into their proper places in the modelling. This would shift the logic to that of operational collaboration, which would take the place of the way things are generally done today. The system coherence would be based on collaboration requirements. To succeed as models that are interactive and up-to-date, the models need to be user-friendly. Information included should be shared in a manner that facilitates understanding – for example, categorization or visualization. But if the task of adding information is complicated and requires extra work it will probably be realized inadequately.

Information modelling could create “a new joint field of practice” in contracting, a field that is used by various professionals to share knowledge, a boundary object-in-use for boundary spanning (Levina and Vaast 2005). For example legal knowledge would need to be integrated into this space instead of being presented as a separate document that forms a logic system of its own. As an interactive domain, which is to be updated and developed continuously it would appear as a good example of ‘triological contracting’. Information modelling can make the operational practice transparent to all concerned. The connection between planning and forming of agreements and implementing them becomes visible. This makes it clear that implementation of strategies and contracts cannot be expected to happen through a magic conduit but requires simultaneous goal-setting and evaluation as well as proper mechanisms and facilitation.

In our previous research project PRO2ACT (Proactive contracting processes in public procurement) the need to emphasize the process nature of contracting to escape the legal trick-track thinking became apparent. In this project, we studied five public procurement cases in two municipalities. The research approach was a combination of action research (Gummesson 2000) and case study. We conducted three developmental process simulation projects according to the SimLab process simulation method (Smeds et al 2006) to reveal practices in public procurement processes and related contractual practices. The main data collection methods were semi-structured interviews (66), participation in and observation of the process simulations and workshops, which all were audio and/or video recorded and the recordings transcribed. In addition we used secondary written documentation.

Our present research project VISO (Visualized boundary objects for public procurement contracting) is strategic research opening, which studies directions for future research. It opens up novel approaches to public procurement contracting by asking what kind of interaction points between different expertise quarters may be located in the public procurement process and with what kind of user-friendly boundary objects the collaboration is promoted. Our future plan is to analyze real life contracts as processes, highlighting decision points, evaluating the quality of the tools and methods used to facilitate the communication leading to these decisions and to develop or enable the development of functioning boundary objects.

8 Conclusions

The ‘container’ and ‘conduit’ metaphors have dominated perceptions of contracts. Contracts have mostly been seen as final entities and discussed as such. This has had an enormous impact on contracting practice as well. In this paper we have presented a ‘twist of pearls’ metaphor to substitute the container metaphor. This metaphor takes as a starting point the contracting process, the twists that bind together pearls – that is, various binding agreements such as decisions and definitions. Their legal, economic and technical significance may vary but they do contribute to the decision-making and implementing process. However, even if contract documents begin to be seen as collaboration tools they may never become widely appreciated boundary objects due to their abstract nature.

Spatial tools like information modelling might have a better chance to illustrate the operational starting point and significance of contracting. New technologies and innovations offer enormous possibilities to transform contracting into a *de facto* collaboration where various tools are developed and experimented in a dynamic process. Understanding the process nature of contracts also emphasizes their use as tools to facilitate change. Above, we have specially referred to the use of boundary objects in the planning and strategy phase and in the implementation phase, to highlight the various points where they are needed.

Even if the process nature of contracts is the reality in practice – and it has been acknowledged in many theoretical discussions in law – the old metaphor still prevails, both in contract law and in contract studies in other disciplines as well as in the minds of practitioners. Contracts are usually seen through the traditional view as being final legal documents according to which the will of the parties will be interpreted. Contracts are not experienced as the processes they in fact are. In this paper, we attempt to change the traditional metaphor and present some directions that might make the process nature of contracts visible, as well as the need for new tools and attitudes in research and professional expertise such as legal expertise. This is rather an exploratory than explanatory attitude (Holmström et al 2009) to contracting. When contracts are seen as processes they do not appear as entities with particular characteristics. Many traditional discussions concerning contracts could be classified as ‘entity discussions’: contracts, for example, appear as binary opposites of trust, love and gift (Pohjonen and Koskelainen 2012, 286-288). These kinds of classifications do not invite research on the many-sided features of contract

processes and the possibilities to develop them as collaboration processes. A new metaphor to enable new action is required to be adopted. Our suggestion is the *twist of pearls* metaphor.

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