# MODELLING THE DYNAMICS OF BUSINESS INTERACTION

Competitive Paper

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#### **Abstract**

That companies are embedded in open boundary-less networks and have multiple direct and indirect relationships with a number of other organizations cannot be disputed. Indeed, this has been a long standing proposition of researchers embracing a network view of relationships. The idea of interdependency between companies has been used to explain beneficial and deleterious effects that network members cause to and experience from other members of the network; interaction is at the heart of business relationships and development (Ford, Gadde, Håkansson, Snehota, & Waluszewski, 2008).

Business interaction has been central within the IMP tradition of enquiry. Among the many papers that address this topic, Ford and Håkansson (2006a) stress the importance of five issues - time, interdependence, jointness, relativity and subjective interpretation - to understand business interaction. In addition, Holmlund (2004) warns about the difficulties in setting boundaries for studying business interaction. The present article offers a technology capable of dealing with these issues when modelling the dynamics of business relationships. This new technology is compatibles with the interactionist stream of research that sees organizational actors in interaction potentially creating, maintaining, modifying and, sometimes, terminating business relationships.

Based on multiple case study research conducted in the steel, photocopy and printing, vegetable oil trading, and packaging industries, this paper presents a new approach to mapping the dynamics of business-to-business relationships. Business interaction is modelled as if the parties apply rules of meaning that guide the interpretation of the other's acts, and rules of action that guide response; this is called Rules Theory. Rules Theory draws on the pioneering work of Pearce and Cronen (1980) in the communication discipline. Rules of meaning and action are connections between antecedent action, meaning and response that enable analysts and participants to understand the dynamics of inter-business relationships. The interpretation of any action is context dependant. The context of interaction accounts for norms and rules created by the members of the extended network. Each time a party performs an act, relationships are potentially reshaped; likewise relationships are potentially reshaped each time the other party gives meaning to the act and acts in response. Each action and response is interpreted by the other party, producing a dynamic environment in which the structural attributes of a relationship, such as trust, commitment, bonds, information sharing and distance may be established, confirmed or changed. Rules Theory therefore provides an analytical framework for understanding how process and structure within business-tobusiness relationships are connected. This paper explains and demonstrates Rules Theory using case study illustrations.

**Keywords**: Interaction, business relationships, networks, Rules Theory, constitutive rule, regulative rule

#### Introduction

For the last 30 years or more the Industrial Marketing and Purchasing Group (IMP) has actively studied the process of interaction that develops business relationships (Leek, Naudé, & Turnbull, 2003). The network perspective to studying business relationships that the group embraces produced the actors, resources and activities (ARA) model (Håkansson & Johanson, 1992), which since then has been used as a basis for studying several forms of business relationships. In due course the initial challenges made by the original IMP project, that is, the challenge to the idea of the business world as an atomistic structure of independent actors within markets, and the challenge to the idea of independent company action have become more widely accepted (Ford & Håkansson, 2006b). Currently, researchers appear to accept that business processes occur between interdependent companies in interaction, however, the effects of interaction on the structure of relationship is are only partially accepted. Ford and Håkansson conclude that the nature of business interaction needs increased understanding.

This paper increases understanding of the dynamics of business relationships by offering a new methodology to modelling business interaction called Rules Theory. The use of Rules Theory allows an external observer to make sense of intercompany interaction as if the parties apply rules that give meaning to the others' acts and guide action to respond. This paper is organised as follows: first it presents a brief discussion of a number of unresolved issues in the IMP literature. Secondly the fundamental components of Rules Theory are introduced. Thirdly, we describe the research program that was used to develop and test Rules Theory. This is followed by a number of illustrations of the application of Rules Theory. The paper finishes by discussing how Rules Theory advances current knowledge of business relationships and interaction.

#### The network perspective of business relationships

A number of authors that embrace the network approach regard business relationships as social constructions affected by exchanges of acts between companies in interaction, the parties' past experiences, actors' perceptions of the present situation and their expectations of the future (Alajoutsijärvi, Möller, & Tähtinen, 2000; Ford, McDowell, & Tomkins, 1996; Håkansson & Ford, 2002; Håkansson & Snehota, 1995b). Ford and McDowell (1999) argue that actors behave in particular ways in order to achieve specific outcomes. Some outcomes are intended and foreseen whereas others are neither foreseen, nor intended. Actors appear to be influenced by the current state of the focal relationship, relationships within the broader network, and the possible effects that relationship actions would have on those wider network relationships. Ford et al. (1996) suggest that interaction within a relationship can be influenced by the previous experiences of the participants, the effects of the acts that participants in the relationship can predict, their personal beliefs and the value that participants consider relationships bring to overall business performance. Batonda and Perry (2003) warn about the complexity of these processes that makes outcomes of actions difficult to predict.

Change within relationships is brought about by the actions and interactions of participants, and is reflected in qualitative change to structural features of the relationship. For example, as actors develop a closer understanding because of the predictability of their reciprocal acts and interpretations, bonds strengthen and distance reduces (Håkansson & Snehota, 1995a). Just as the role of relationships in the evaluation and comprehension of messages in personal settings is considerable, so it is in business contexts (Duck, 1976). Actors transfer from other

relationships rules of interpretation and action that have been learned or practised in past experiences and socialization. Thus, their interpretations of the other's acts are influenced by their positions in various systems - family, organization, business network and culture for example. Ford et al. (1996) report that over time companies gain knowledge of each other's behaviour, and this provides a context within which actions are interpreted. Individuals participate in episodes drawing on the rules of meaning and action that they have construed from previous experiences within the focal relationship and elsewhere. Håkansson and Ford (2002) identify a number of further specific contextual conditions that might guide the interpretation of another's acts: 1) Previous interactions within the relationship; 2) Experiences gained from other relationships; 3) Episodes occurring concurrently within the relationship and other relationships; 4) Expectations regarding the future; and 5) Episodes occurring in the extended network in which the parties are not directly involved. The outcome of any interaction will depend not only on the performed acts but can also be influenced by history, expectations, and actions of third parties beyond the dyad (Håkansson & Snehota, 1995c).

This view of business relationships embedded in networks developing as a result of reciprocal acts that parties figure out and coordinate in interaction represents the current position of many researchers working in the area. However, existing research has not yet resolved a number of problems. Among them are the boundaries of networks. Anderson, Håkansson, and Johanson (1994) describe networks from the perspective of a focal firm interacting with a focal party, both at the same time connected to other parties, who may occupy any number of network roles including customer and supplier. Each conjunction of two companies forms a dyadic relationship embedded in an extended network of interconnected suppliers and customers. Accordingly, networks are formed by interconnected dyads (Kelley & Thibaut, 1978). This concept implies that networks can extend endlessly, which can make the network gigantic and unintelligible, and therefore not amenable to analysis. Alajoutsijärvi, Möller, and Rosenbröijer (1999) find networks relatively nontransparent with arbitrarily set boundaries. Holmlund (2004) also recognises that setting boundaries for analysis in studying inter-company interaction is difficult and commonly arbitrary. Holmlund proposes grouping interaction on the basis of the parties' interconnectedness. This allows for setting network boundaries from a less arbitrary perspective. However, assessing interconnectedness still poses a challenge.

Ford and Håkansson (2006a) identify five particular problems researchers face when investigating organizational interaction. The first problem is one of subjective interpretation interaction has meaning and subsequent interaction depends on the interpretation than one party gives to the other's previous act. The second problem is that of jointness - interaction is between two or more parties (actors). The third problem is that actors are interdependent. The fourth problem—that of relativity—acknowledges that interdependency and interaction have consequences. The final problem is that interaction occurs over time. They confess that IMP researchers have been struggling to understand and model these five issues over the last 30 years. In a later work, Ford, et al. (2008) revisit the problem of interaction and develop a conceptual model merging the ARA model with two dimensions of time and space. However, most of the problems about understanding business relationships in networks persist. In the next section, we present Rules Theory, an analytical framework that recognizes and explicitly accounts for these five conditions, whilst simultaneously resolving the problem of network limits. Rules Theory is wholly consistent with the contemporary view that business relationships are socially constructed in interaction.

## **Rules theory**

Rules Theory draws on the pioneering work of Pearce and Cronen (1980) in the communication discipline. They created a theory dubbed 'the co-ordinated management of meaning' (CMM) which explains how interpersonal communication creates, confirms and potentially changes actors' senses of social reality.

Like CMM, Rules Theory adopts a social constructionist perspective grounded in the language philosophy of the German philosopher Ludwig Wittgenstein, in systems theory, and in logical algebra. In his later work, Wittgenstein (1968) concluded that the meaning of any utterance was in the context of its use. Our research similarly shows that the meaning of any action is subject to the context of its performance, and because there are many potential contexts, meaning is not fixed. Rules Theory also views actors as embedded in multiple open systems. For example, an actor is simultaneously part of a dyad, a family, an organization, a network, a community and a culture, each of which may provide an interpretive framework to make sense out of a relational partner's action and to guide subsequent response. Logical algebra (Spencer-Brown, 1972; Varela, 1975) provides the necessary notation to map interactions and the rules that describe process and create structure.

Rules Theory is composed of three major elements: 1) Levels of context, which provide the frames of reference for interpreting a relational partner's action; 2) Rules that appear to account for the interpretation and guide response; and 3) Logical, contextual and implicative forces. We now describe these elements.

#### **Levels of Context**

Business-to-business relationships are the product of dyadic interlinked acts and episodes embedded in complex networks. The social reality of business relationships is dynamically constructed through these acts and episodes. Acts and episodes within relationships acquire their meaning as actors bring contexts to bear on their interpretation. Because many contexts could potentially be applied, there is a potential for paradox. This can happen when conflicting interpretations of an act are created as two or more different contexts are brought to bear.

Rules Theory presents contexts as hierarchically ordered frames-of-reference, organized in such a way that one level serves as a context for interpreting another. In other words, there is mutual interdependence between hierarchical levels of context. A lower level of context can be understood by reference to a higher level of context. For example, the meaning of a particular episode between a buyer and seller can be understood by reference to the history of their relationship. The meaning of any action potentially varies according to the context of its performance.

As the levels of context exist only while social systems are in interaction, the number and nature of these embedded levels of context is not fixed, but depends on the nature of the interaction (Cronen, Pearce, & Tomm, 1985; Pearce, 1989). Scholars working in a number of fields, including consumer behaviour (Buttle, 1994, 1998), have identified at least fifteen hierarchically organized levels of interpretive context: raw sensory data, content, construction, construction system, speech act, episode, master contract, relationship, life-script, autobiography, self, family myth, archetypes, cultural patterns, truth (Buttle, 1994, 1998; Cronen, 2001; Cronen, Johnson, & Lannamann, 1982; Cronen, Pearce, & Harris, 1982; Cronen, et al., 1985; Harris, 1980; Pearce & Cronen, 1980; Pearce & Pearce, 2000). These

are collectively known as context markers, since they signify the contextual conditions that are used to guide interpretation and action.

#### **Rules**

People's actions are interpreted by, and responded to, by others. Analysts can use Rules Theory to understand and explain others' interactions 'as-if' the actors were employing rules to guide meaning and action. It is important to understand that the rules in Rules Theory are not law-like generalizations but adaptable social practices that enable an observer to say that actors appear 'as-if' they are following a rule. Rules are therefore analytical tools. Rules Theory employs two types of rule in the analysis of interaction: constitutive rules and regulative rules.

### **Constitutive Rules**

Constitutive rules give meaning to the actions of others (Pearce & Cronen, 1980). Levels of context are applied when meaning is assigned. Generally, the constitutive rule can be expressed thus: "in context C, action A means B". An example of a constitutive rule is: in the context of their relationship (the context of performance), if one party supplies useful information (antecedent condition), then the reciprocal act of sharing information (act) counts as evidence of commitment to keeping the relationship working (meaning).

# **Regulative Rules**

Regulative rules guide action; they account for the sequences of actions connecting parties in interaction, for example supplier and customer. Actions are contextually interpreted, and those interpretations entail certain subsequent actions that can be deemed obligatory, legitimate, irrelevant, or prohibited. These deontic operators denote degrees of 'oughtness' in an actor's response. Generally, the regulative rule can be expressed thus: "in context C, if P then Q". An example of a regulative rule is: in the context of our contract (the context of performance), if an order is delivered in full on time (antecedent condition), it is obligatory (deontic operator) to pay the invoice in full on time (consequent condition).

Constitutive and regulative rules interact. For instance, one constitutive rule might be as follows: At the Contract level of context late delivery counts as non-compliance. The associated regulative rule may be: if the supplier delivers late then applying contract penalty is obligatory in order to avoid further problems. However, given a different level of context a different constitutive rule might apply to the same action, and entail different consequences, as follows: At the Relationship level of context, late delivery counts as the supplier having had a serious problem. The associated regulative rule may be: if the supplier delivers late, then a review of processes is legitimate in order to avoid further problems. The supplier whose actions are subject to the Contract level of context may lose the customer, whereas the company subject to the Relationship level of context may be offered an opportunity for process improvement.

#### **Logical Force**

The structure of regulative rules governs the mechanism by which one actor becomes part of an interactive dyad or system. Any single act stands between an antecedent and consequent act, both performed by other parties and hierarchically contextualized. Each person can be visualized as possessing an organized constellation of constitutive and regulative rules, interpreting other persons' acts, acting in accordance with those interpretations.

Two types of logical force connect these three elements that make up regulative rules: antecedent condition, act and intended condition. These are prefigurative and practical logical force. Whereas an antecedent condition possesses prefigurative force, an intended condition possesses practical force. These forces vary in their power to influence an act.

# **Prefigurative logical force**

Prefigurative logical force compels an actor to explain their actions by reference to some powerful antecedent condition. An action is performed 'because of' a preceding condition. A supplier might say, for example, "We will no longer supply this customer because of delays in settlement of our accounts." When prefigurative force is strong, the person perceives acts as caused by previous events.

# **Practical logical force**

Practical logical force compels an actor to explain their actions by reference to some intended future condition. The act is purposive and is performed to produce the desired subsequent outcome. The person performs an act 'in order to' produce that outcome. For instance a supplier sends an exception report 'in order to' alert the buyer of possible delays in fulfilling an order and to avoid further problems.

Also operating within the hierarchy of contexts are two forces that influence action. Pearce (1989) describes these as contextual and implicative forces.

#### **Contextual Force**

Some levels of context can have considerable deontic power to obligate, legitimate or prohibit action. A strong contextual force provides very clear guidance to action. For example, a very clearly defined life-script that has been enacted repeatedly over many different episodes and relationships, might absolutely determine the appropriateness of an action. A buyer may report, 'I insisted on being given extended guarantee because for a company like ours these are unexceptional standard conditions.' Contextual force varies between weak and strong.

#### **Implicative Force**

Implicative force is the sense of obligation that derives from the anticipated effects that an action will have on the context markers. A supplier may report, 'I have sent a free replacement because that should improve our relationship with them.'

A synopsis of the model is illustrated in figure 1.

[insert figure 1 about here]

Rules Theory offers a representational architecture based on the work of Spencer-Brown (1972) and Varela (1975) to model business-to-business interactions and the associated rules that account for meaning and action. Three signs are commonly employed, as shown in Figure 2.

[insert figure 2 about here]

We apply these signs when we present our case evidence.

# Methodology

We use case study data collected over a two year period from 15 companies which comprised four focal companies and a number of their suppliers and customers. The focal companies were national or multinational organisations in steel construction (company A), vegetable oils trading (company B), aluminium and steel can manufacture (company C), and imaging solutions (company D). Among their suppliers and customers were included distributors, a public utility company, a university, department stores, manufacturers of personal care products, and a food processor. The main source of information comes from 55 semi-structured interviews conducted at these 15 companies. In addition, data were triangulated by attending inter-company meetings, conducting participant observation of business interactions and processes, and examining documents such as sales reports and marketing plans. Our multiple embedded case study design followed the recommendations of Yin (2003). Transcription of the interviews ran to over 700 pages. Interview data, observation notes and company documentation was entered into NVivo 2.0. 12 nodes were used to code text that reflected Rules Theory variables.

# **Rules Theory in Practice**

We observed that contextually-interpreted actions influenced the structure of relationships, reshaping relationship attributes which in turn influenced the rules for future interaction. In the following sections we use two case illustrations to illustrate the application of Rules Theory to portray how inter-company relationships evolve over time as a result of interaction. Important to note is that the case studies presented here have the intention to illustrate the usefulness of Rules Theory in modelling inter-company interaction and not to deploy all the richness of our data. To describe the structure of, and change within, relationships we deploy three analytical constructs: trust, commitment, bonds, and relationship value.

Within our primary research data we identify the following seven levels of context: act, episode, contract, relationship, life-script, company character, and industrial sector. They account for the meaningful interpretation of business-to-business partners' interaction. Nevertheless, for the analysis of any given act not all levels of context are necessary, which is consistent with Cronen and Pearce's (1982) original proposition.

Acts are communicative performances by actors. Both verbal and nonverbal communications count as acts. In our research, examples of acts include raising requisitions, requesting quotations, raising questions, submitting notices of delivery, writing reports, acknowledging receipt, and communication of problems, complaints and rejections.

*Episodes* are reciprocated acts taking place over time. Episodes are bounded sequences of acts, with a beginning, an internal structure, and an end. An episode is a sequence of acts and interactions that form a nameable unit. An example of an episode is 'the bankruptcy of company X's supplier'. This bankruptcy subsequently opened the opportunity for company B to begin doing business with company X, as case illustration one shows.

Contracts determine what one actor expects from others in a specific episode. Contracts define how actors shall conduct their interactive episodes. Contract is therefore a higher level of context than episode. When business exchange is kept at arm's length, i.e. subject to formal agreement, the meaning of any given episode will be what is specified in the contract. An illustration of what contracts are expected to achieve could be found in company D's Regional Dealer Manager justification of his proposition to introduce a very detailed document called the "Dealer Agreement"

"All you have to do is show them the foundation that you gave them solid concrete ground they want to move on and the only way you can do that is to make a commitment." (Regional Dealer Manager, Company D).

Although a formal contract might attempt to predict all major types of episode, and specify the rules that govern interaction, actors may need to refer to other levels of context to guide action and response when episodes are not contractually defined. Relationship, a higher level of context fulfils this function.

Relationship is a higher level of context that enables actors to make sense of the other party's actions beyond the limits of the contract. Relationship is socially-constructed through intercompany interaction. This level of context is portrayed using all or part of the structural dimensions of relationships. An illustration of this level of context is provided in case illustration one when the Customer Relationship Manager at company B comments about the "love-hate relationship" his company had with another company in the same industry. Other relationships than that between customer and supplier may guide interpretation and action – for example, private life relationships with significant others.

Life-Script is a level of context that can be described as a person's sense of self-in-social-interaction, or 'what it is to be me.' This extends beyond actors' construals of how they act in relationships at work, into a sense of how they act in generally in their private relationships. A person's Life-script is constructed through participation in many relationships over time. Life-script consists of a recognizable pattern of interactive behaviours. An illustration of life script was found in the Supplier Manager at a customer of company C when he explained his role in the organization:

"I look after—in the old school is buying—the supply management. For a very good reason we don't actually buy anymore we do manage the relationship." (Supplier Manager, Personal care manufacturer).

Company Character is the level of context that describes the recognizable and characteristic patterns of behaviour exhibited by a company. Whether explicit or implicit, corporate norms and values represent a collection of practices and beliefs that influence actors' behaviour within an organization and provide grounds for giving meaning to the acts of trading partners. A number of norms and values were articulated by informants during our research: the importance of the customer, the company's responsibility to the community, the company's respect for the environment, protocols for managing supplier relationships, and concerns for employee welfare. Since companies are formed by groups of individuals, the aggregated individuals' Life-Scripts, or the Life-Script of the company's leaders, may give shape to the Company Character. An illustration of this level of context comes from the utterances of one Key Account Manager at company C.

"I've worked in other companies in the past where they might elaborate on the truth a bit, to make sure that the customer hears what they want to hear, our company is none of that." (Key Account Manager, company C).

*Industrial Sector* is the highest level of context identifiable in our research. This describes recognizable and characteristic patterns of behaviour exhibited by companies within a sector, including practices that are deemed acceptable or unacceptable. Some Industrial Sector practices may be explicitly determined, such as those that are subject to local, national or international laws and regulations, whereas others may be reflected in customary behaviours

of sector companies. This level of context is illustrated by this remark from one customer of company D, a buyer employed by an electricity supply company.

"The industry has hidden all the other things and the customer realise is signing the contract and paying x cents for toner and stuff like that, I think the industry takes advantage of that buyers who are not that clever because of the way the whole service is structured." (Buyer, Electricity company).

Figure 3 illustrates the idea of hierarchical levels of context in which business-to-business interaction is performed.

[Insert figure 3 about here]

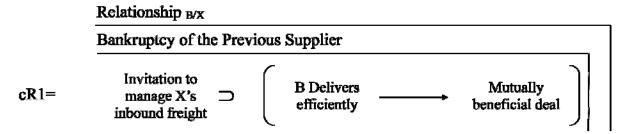
#### **Case Illustration 1**

This case illustration is based on one episode observed in company B, a company in the vegetable oils trading industry. It shows the changes of relationship structure that resulted from the interaction between B and another company—that we call X—that was initially a competitor and became a customer. Company B had a complex business relationship with company X. Company X was both a customer and an occasional competitor for company B. Company B's Customer Relationship Manager describes the relationship as follows:

"We had a love-hate relationship with their people. Sometimes we could do business on an opportunistic basis and everyone was slapping one another's backs and that was a good deal for everyone, and the next minute we will be trying to put one another out of business." (Customer Relationship Manager, company B).

The episode begins with one of company X's regular suppliers of vegetable oils going to bankruptcy. This presented an opportunity for company B to replace the bankrupt supplier providing inbound transportation for company X's purchases of vegetable oil imports. Company B provided the service very efficiently to X's great satisfaction. As a consequence, their relationship strengthened considerably. In the words of our informant, X became B's "most valuable customer" (Customer Relationship Manager, company B).

In rules theory architecture the episode can be charted:



The chart illustrates a constitutive rule (cR1) from company B's perspective, as follows: in the context of an episode of 'Bankruptcy of the Previous Supplier,' and in the context of the Relationship between B and X, if X invites B to manage the inbound transportation of vegetable oils and B provides an efficient service (i.e., oil is delivered on time at low cost), this counts as a mutually beneficial deal.

The results of this episode were so pleasing to both B and X, that they started doing more business together. X started buying oils from B's crushing facility and keeping inventory at

B's storage facilities. Finally X offered B a long-term contract which enabled B to cancel the planned closure of their crushing facility. Our rules theory analysis shows that company X appeared to have applied the following regulative rule (rR1):

# Relationship B/X rR1= (Legitimate (Do more business)) Enhance the performance of relationship

Which reads: in the context of the relationship between companies X and B, if mutual benefits are experienced, then it is legitimate to increase the volume of business in order to enhance the performance of the relationship. This suggests a change in logical forces operating within the B/X relationship as a result of the favourable initial outcome. When X invited B to manage their inbound freight a prefigurative force prevailed, B was invited 'because of' the previous supplier's bankruptcy. However, the volume of business between X and B increased because the parties were acting 'in order to' enhance the potential outcomes of the relationship. That is, a practical force was evident.

Interviews with parties on both sides of the B-X dyad indicated that the bankruptcy episode and subsequent interaction had brought about considerable change in the structural features of the relationship. We observe improvements in trust competence—one party's belief that the other has the required expertise to perform the task (Selnes & Gønhaug, 2000), instrumental inputs—those physical or human resources that aim to fulfil the counterpart's needs better (Geyskens, Steenkamp, Scheer, & Kumar, 1996), and relationship performance—the contribution of the relationship toward business benefits (Söllner, 1999), both dimensions of commitment, economic bonds—the mutual interdependence of the parties to make the business possible (Holmlund & Törnroos, 1997), and relationship value—the summation of all positive effects upon a customer's business (Payne, Christopher, Clark, & Peck, 1995). Table 1 presents the data that support this affirmation. However, company X's Group Manager Fats & Oils, summarises the stage of the relationship by saying: "We certainly do have a strong relationship with [company B]"

[insert table 1 about here]

#### **Case Illustration 2**

Case illustration 2, is based in an episode observed in company A, a company in the steel construction industry. It shows how a re-contextualization of a particularly difficult episode changed the structure of relationship between company A and one of their customers, distributor Z. Company A's Regional Sales Manager described distributor Z as excessively demanding and 'too difficult to deal with.' Z had been dissatisfied with the speed of A's order fulfilment, hence used to call several times to complain, using language that company A regarded as abusive and intolerable, particularly given that distributor Z only sold \$300,000 per year of A's products. Having had enough of Z's behaviour A decided to terminate the relationship, however, they did not sent a direct communication terminating the relationship—which could be dimmed abusive given the large size of A and the small size of Z—instead, company A sent a letter to Z informing about a 10% price increase. A was hoping that this would motivate Z to stop doing business with them. However, Z's reaction was different. Z sent a letter back mentioning the General Sales Agreement—a formal contract signed between A and Z—and requested an 'amicable' meeting to discuss the problems. In the letter, the distributor justified the behaviours that A had found abusive and

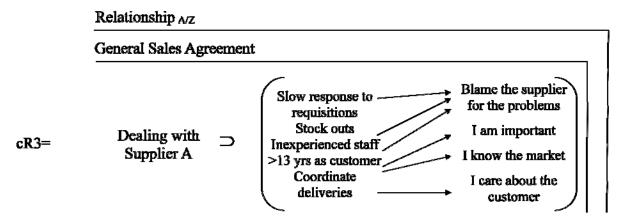
intolerable by saying that high standards were expected of A because Z, in turn, had to deliver high standards to their downstream customers. The letter was also full of details about alleged previous failures of A's sales staff in fulfilling their obligations as suppliers.

Using our rules theory, we construe the episode as if company A had applied the following constitutive rule: "in the context of the General Sales Agreement and in the context of the Steel Construction Industry, if we have a distributor who repeatedly complains, abuses our employees, refuses to carry inventory, an sales only few dollars of our product, it counts as the relationship with that distributor becomes worthless because the monetary and non-monetary costs of servicing the distributor are simply too high." Then, we explain their action of sending a "termination" letter as if the following associated regulative rule had applied: "if the distributor is worthless, then it is legitimate to communicate a price increase in order to force the distributor to terminate the relationship."

In rules theory architecture the episode can be charted:

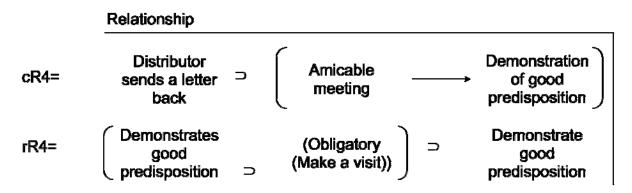
However, distributor Z's reaction following receipt of the letter could be construed differently. The constitutive rule that had applied was: "in the context of the General Sales Agreement, if steel supplier A sends a letter indicating its intention to increase prices, it counts as a threat to the relationship." The associated regulative rule was: "in the context of the General Sales Agreement, if A threats the relationship then it is legitimate to demand an amicable meeting to avoid termination.

Nevertheless, Z's written response to A re-contextualises the episode. Instead of responding only in the General Sales Agreement context, Z invoked a higher level context, the Relationship between the two companies.



This constitutive rule (cR3) reads as follows: "in the context of our relationship with A, and in the context of the General Sales Agreement, if the supplier: 1) is slow to respond to requisitions, 2) has recurrent stock outs, and 3) employs inexperienced staff, this counts as A be causing the problems for us. Since Z have been a distributor of company A's products for more than 13 years, Z does not only count as an important customer but has come to know the market well; furthermore Z's ability to coordinate deliveries counts as Z is taking care of the customers."

Since Z did not terminate the relationship as expected, A construed Z's response as a demonstration of good predisposition and decided to visit Z.



The constitutive rule that applied in the re-contextualised interaction was: "in the context of Relationship, if Z sends a letter requesting an amicable meeting, it counts as a demonstration of good predisposition. The regulative rule reads as follows: "in the context of our relationship with distributor Z, if Z demonstrates good predisposition to resolve the problem, then it is obligatory to reciprocate and show predisposition visiting them in order to fix the problem or to terminate the relationship."

The re-contextualization of the act from General Sales Agreement to Relationship allowed for different constitutive rules and further regulative rules other than termination of the relationship to apply. An *implicative force* became evident, that is, A had decided to visit Z 'in order to' redefine the relationship rather than simply terminate it because they sensed an opportunity existed.

After the meeting had been held, there was a considerable strengthening of the relationship between the two companies. When we returned to the site to interview company A's staff a few weeks later, one interviewee compared the past with the present using the following words:

"She [distributor Z's manager] has changed, she is so different, and she now probably realizes that people are more helpful to her. I hated to talk to her. She always said the same. You can't help her, she was usually yelling and screaming and I'd get to the point where I didn't want to talk to her." (Project Manager Marketing, Company A)

The perceived costs of serving Z had decreased from A's perspective, and even though the distributor still neither carries inventory nor had increased the volumes purchased, A's Regional Sales Manager, who previously had considered the distributor worthless, observed in a follow-up interview that "This is an important account to keep." (Regional Sales Manager, Company A)

From interviews on both sides of the dyad, we noted that the structural attributes of the relationship were perceived to have changed, as abridged in table 2. Prior to the episode there were no social bonds—found in positive interpersonal relationships between the parties (Buttle, Ahmad, & Aldlaigan, 2002); there was no evidence of emotional attachment. However, social bonds were improved to such an extent that distributor Z invited some of company A's staff to dinner. Attitudinal inputs—which are a dimension of commitment, found in intangible inputs such as psychological attachment or positive attitudes towards the partner towards the continuation of the relationship (Söllner, 1999), also changed. Before the episode Z had been regarded as acting abusively towards A's staff. After the episode mutual pledges were exchanged, indicating stronger attitudinal commitment towards continuing the relationship. It is notable that although there was no change in the instrumental inputs of either party, both agreed that the relationship had improved. Dimensions of trust such as competence and benevolence—the belief that one party will act in a manner that is beneficial to the other (Selnes & Gønhaug, 2000), also changed as a consequence of the episode. Company A had been critical of the distributor Z's lack of benevolence, whilst Z in turn complained about A's competence. After the episode, A reported that distributor Z has changed, and Z noted that company A's staff had become more helpful. Finally as perhaps most importantly, company A claimed that relationship value had changed for the better, and that a worthless distributor had turned into a valuable account that was worth keeping, which we construe as perceived increase of financial value—the effects of the relationship in increasing profits to the organisation (Langerak, 2001).

[insert table 2 about here]

#### Conclusion

Business-to-business relationships are social constructions that are produced by organizational actors in interaction. They evolve over time as each party to the relationship produces acts which are interpreted by other parties, guiding subsequent action. This dynamic interplay between meaning-filled action and response enables actors to form evaluations of the structural character of the relationship. No act has a fixed meaning. All actions are amenable to multiple interpretations, because actors can bring any frame-of-reference, or context marker, to bear on the interpretation.

Rules Theory provides an apparatus for understanding the dynamics of business-to-business relationships. Rules Theory shows how process and structure are related. Process consists of

the actions that relationally connected actors perform. Processes sometimes are identified by actors as nameable episodes such as placing an order or raising a complaint. Actors' interpretations of these acts and episodes enable them to make assessments of the structural character of the relationship. For example, an actor may say that a vendor's response to a complaint indicates commitment, or that placing a large order demonstrates trust.

Rules Theory is presented in a parsimonious framework of three major elements: contexts, rules, and forces, which altogether capture the time-bound process of interpretive interaction. Contexts are the frames-of-reference which organizational actors bring to bear on interpretation. Rules guide interpretation and response. Forces explain actor's behaviour. Consequences are the outcomes of an action or response. It is important to note that Rules Theory does not claim that actors actually apply rules of meaning and action. Rules Theory is based on a socially constructed view of human behaviour not a mechanistic view. Instead, it uses the notion of 'rules' as an analytical device that describes the parties as if the act deploying rules of meaning and action.

Rules Theory is founded upon the later language philosophy of German philosopher Ludwig Wittgenstein, systems theory and logical algebra. Our research shows that, like speech, any action is amenable to multiple interpretations. Rules Theory also acknowledges that organizational actors are embedded in multiple social systems any of which can provide an interpretive framework to make sense out of a relational partner's action. Logical algebra provides the necessary notation to map interactions and the rules that describe process and create structure.

Although in principle the number of contexts that could be brought to bear on the interpretation of an act is infinite, our fieldwork suggests that small number of contexts are often brought to bear. These are act, episode, contract, relationship, life-script, company character and industrial sector. These contexts are hierarchically ordered in such a way that one level provides a context for making sense of another. Although hierarchically ordered, higher order contexts are sometimes inert or subordinated during an actor's interpretation. At any one time, any given level of context may have considerable power to guide interpretation and response.

There are two types of rules within Rules Theory: rules of meaning and rules of action. Constitutive rules give meaning to the actions of others. Meanings are always contextually framed, the general form of the rule being: In context C, action A means B. Regulative rules guide action. An interpreted act entails certain subsequent actions, the general form of the rule being: In context C, if P then Q. These subsequent actions have different forms of deontic power. A response may be obligated, prohibited, legitimated or undetermined.

Any actor can be imagined as if applying a set of contextually variable constitutive and regulative rules. Operating within the regulative rules structure are two logical forces: prefigurative logical force and practical logical force. The former suggests that an actor responds in particular way because of some pre-existing condition. The latter suggest that the action is taken in order to achieve some future condition.

An important outcome of these contextually-varied, meaning-filled, interactions is a structural evaluation. An actor who engages in interactive episodes becomes able to form descriptive evaluations of the relationships within which these occur, as well as other relationships. Our research found that actors used a wide variety of terms to evaluate their relationships. However, we have chosen to adopt a more parsimonious vocabulary that accounts for most of the variance in our case data. Five relationship attributes feature strongly

in our case analyses: trust, commitment, bonds, satisfaction and distance. Our research shows that actors' construals of the condition of their relationships, in terms of these five variables, are highly sensitive to the meaning-filled interpretation of the actions that occur within those relationships, and beyond. Meaning-filled interactions therefore produce evaluations of structure, and these evaluations in turn provide a frame-of-reference for interpreting actions. Therefore, structure and process are interdependent.

Any process linking relationally-connected parties can be unpacked and described by reference to these two forms of contextually-sensitive rule. Rules Theory makes transparent the context-markers and rules that actors apply during their interactions. The case examples we have described demonstrate different aspects of Rules Theory: contexts, rules, and forces. The first case shows how the structural attributes of a relationship were re-evaluated following one particular episode. A relationship regarded as rather insignificant and occasionally competitive became very important and profitable as a result of the performance demonstrated by one party and the meaning given to this performance by the other. The second case shows how bringing a new context to bear on interpretation enabled a company to re-evaluate as 'important' a relationship with a customer had previously been deemed 'worthless'.

How do we know an act has been performed 'because of' and not 'in order to'? We can not know for sure which force has operated. Rules Theory embraces the realism paradigm as it strives to unpack socially-constructed relational phenomena. Therefore, we can only portray our interpretation of reality; we make no claims for absolute truth.

Our focus has been on the development and application of a methodology for making sense out of the dynamics of business relationships. Rules Theory models actors as if they were applying contextually-sensitive constitutive and regulative rules, the former to guide meaning and the latter to guide action. Interactions between buyers and sellers can be decomposed into sequences of contextually-sensitive rules, where one party's action is meaningfully-interpreted by another, generating a response, which in turn is meaningfully interpreted. Sequences of action-meaning-reaction-meaning are the processes which enable actors to form evaluations of their inter-organizational relationships.

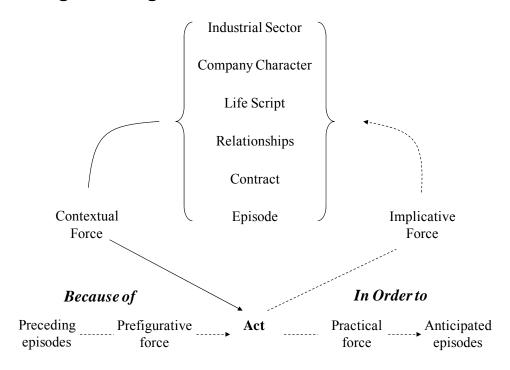
By recognising the changing nature of the context of interaction, Rules Theory accounts for the time issue in analysing interaction. The context of interaction, which influences the meaning to the others' acts is built as the result of the accumulated interaction over time. This also relates to the issue of jointness. However, it is not only time that shapes the context of interaction but also space and setting the limits of the network in the less arbitrary possible manner. The context at which parties give meaning to the others' acts implicitly include members of the extended network, but not everybody at any time. Instead, other actors play a role through their intervention in the construction of the level of context both in the past and at the actual moment, realtivity Ford and Håkansson (2006a) would argue. Interdependency is also addressed in the way a contextual force applies to guide response. Both rules of meaning and action are context bound and in this way also address the issue of subjective interpretation. Rules do not exist in reality, they are, instead the researcher's device to understand intercompany interaction. Rules Theory provides an analytical framework suitable for better understanding how socially constructed inter-company relationships are created, maintained, modified and terminated across time.

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Figure 1. Logical Forces in Business Interaction



Source: Original figure inspired by Pearce (1989)

Figure 2. Presentational Architecture of Rules Theory

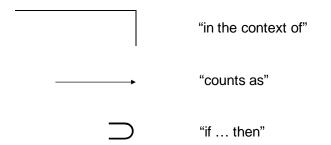


Figure 3. Hierarchical Levels of Context

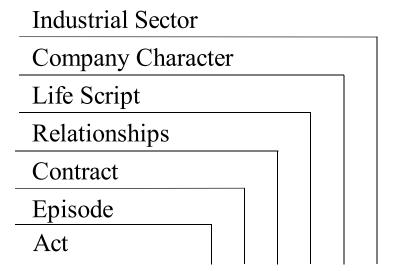


Table 1 Changes in Relationship Features: Case Illustration 1

Features	Change	Evidence	
Competence	1	"We are able to formulate strategic relationships that allow us to tie up vessels for their exports of tallow and our imports of vegetable oils." (Customer Relationship Manager, Company B)	
Instrumental Inputs	1	"They came to us and said: "guys we need someone to buy it, we are happy to sign a deal for few years if you buy.""(Vice President Operations, Company B)	
Relationship Performance	1	"We've got the crushing, now they take most of the oil from it, we also have the freight from South America." ( Vice President Operations, Company B)	
Economic Bonds	<b>↑</b>	"The canola business was doing terribly, we called that a white elephant, so it was useless. We are selling the oil from our crushing plant which is always tough for us." (Customer Relationship Manager, Company B)	
Relationship Value	<b>↑</b>	"Our crushing plant is making money so we are happy there. We are getting money from the freight. We started seeing all the add-on of the gains of that relationship going from strength to strength." (CEO, Company B)	

**Legend**: ↑ read as 'improvement'

Table 2
Changes in Relationship Features: Case Illustration 2

Dimension	Before		After		Tutouvious ovidous o
	A	Z	A	Z	Interview evidence
Social Bonds	No		Yes	Yes	"You can't help herI didn't want to talk to her." (Project Manager Marketing, Company A) "She invited staff of the company for Dinner." (Regional Sales Manager, Company A)
Attitudinal Inputs	No	No	Yes	Yes	"Swearing employees."  "Inopportune answers." (General Manager, Distributor Z)  "Mutual apologies, made our promises." (Regional Sales Manager, Company A)
Instrumental Inputs	No	No	No	No	"Doesn't carry inventory." (Regional Sales Manager, Company A) "Permanent stock outs." (Regional Sales Manager, Company A)
Benevolence	No		Yes		"Call 10 times for the same problem." (Call Centre Manager, Company A) "She has changed. She is so different." (Project Manager Marketing, Company A)
Competence		No		Yes	"Inexperienced staff. Need coordinate deliveries." (General Manager, Distributor Z) "Now people are more helpful to her." (Project Manager Marketing, Company A)
Financial Value	No		Yes		"Too few sales to tolerate the distributor." (Regional Sales Manager, Company A) "Important account." (Regional Sales Manager, Company A)