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A Transformational Lens On Supply Chain Partnerships

Desirée Knoppen . Ellen Christiaanse

Partnering constitutes an important strategy for organizations to deal with increasing environmental flux. Empirical failures, however, still outweigh the theoretical promises of partnerships. At the same time, the field is characterized by a burgeoning albeit heterogeneous body of literature. This paper therefore aims to develop a comprehensive multidisciplinary lens on supply chain partnerships. By approaching partnerships as an inherently dynamic phenomenon drawing from organizational change literature, such a lens takes on a transformational nature. The lens integrates various bodies of literature by pointing out their specific change perspective as well as the transition zones between their underlying assumptions. Consequently, the transformational lens is employed to explore two case studies of supplier-producer dyads in the food industry. The findings illustrate the simultaneous presence of higher management driven change and continuous change at the middle management level. The findings also aid in drawing propositions for further empirical examination and refinement of the relationship between the underlying assumptions of the transformational lens. The transformational lens contributes by facilitating a more complete picture of partnerships than would be achieved by considering each of its constituent bodies of literature in isolation, and sheds new light on the temporal aspect of partnerships.

INTRODUCTION

In a context characterized by global competition, volatile demand, and rapid technological change, competition increasingly takes place between dyads, entire supply chains or networks, rather than between individual firms in isolation (Dodgson, 1993; Christopher, 2003). Consequently, partnering has become an important way for companies to deal with these changing circumstances. Nonetheless, attempts at partnering in general (Gulati, 1998; Spekman, Forbes, Isabella and MacAvoy, 1998) and supply chain partnering in particular (Boddy, Macbeth, and Wagner, 2000) are more likely to fail than to succeed. Sustained research efforts in this field thus seem required.

Previous research has departed from various theoretical stands of thinking leading to a host of diverse interpretations and conceptualizations of supply chain partnerships. Definitions in that regard range from «close long-term links between organizations in a supply chain that remain distinct, but choose to work closely together» (Boddy et al., 2000: 1004) to «a cognitive generalization that accounts for the past ESADE, Universidad de Ramon Llull Information Systems Department eMail: desiree.knoppen@esade.edu ESADE, Universidad de Ramon Llull Information Systems Department eMail: ellen.christiaanse@esade.edu and the future, and so, in a sense, the concept exists outside the stream of time in a cognitive and bracketed present» (Medlin, 2004: 190). The current challenge is perhaps to appreciate commonalities and continuities across these different theoretical stands rather than worrying unduly about differences or even positioning them as contradictory. This paper therefore aims to develop a comprehensive lens on supply chain partnering by integrating diverse theoretical stands. This integration effort is grounded on literature on organizational change (Orlikowski, 1996; Huxham and Vangen, 2000; Weick and Quinn, 2004) given that one of the main characteristics of a partnership is its constant evolution and transformation as the future unfolds (Medlin, 2004). Consequently, the lens developed in this paper points out the specific change orientation of the diverse bodies of literature, as well as their underlying assumptions and transition zones in which assumptions are shared (Lewis and Grimes, 1999). Two case studies of supplier-producer dyads in the food sector are then explored through the transformational lens. The food sector is relevant, as it constitutes a large, dynamic industry subject to shifts in consumer preferences and regulations. Nonetheless, it has seldom been the context for empirical examination of change, unlike, say, the automobile industry (e.g., Ahmadjian and Lincoln, 2001) or the electronics industry (e.g., Applevard, 1996; Boddy et al., 2000). Case data show how different types of change coexist and thus illustrate the transformational lens. Subsequently, the data serve to develop propositions for further empirical research and refinement of the transformational lens.

The paper comprises four main sections. First, a general view on transformation is provided. Second, a transformational lens on partnerships is proposed, and it is shown how three main bodies of literature addressing partnerships —transaction cost analysis, organizational design, and network literature— appear under this lens. Third, after a short review of these bodies of literature, their underlying assumptions as well as transition zones are discussed. At this stage, the results of two exploratory case studies further illustrate theoretical development and help in drawing up future research directions and propositions. The final section draws conclusions and sets out limitations of the current study.

ORGANIZATIONAL TRANSFORMATION

One of our main arguments is that partnerships have to be approached as dynamic and changing because they evolve in a constantly unfolding future (Medlin, 2004). Organizational change literature, though strongly focusing on the individual organization, may shed light on the dynamic aspect of partnerships when viewing partnerships as a special, new, kind of organizational form. Recent work on organizational change pervasively distinguishes between episodic and continuous change (Orlikowski, 1996; Weick and Quinn, 2004). This contrast between different types of change will be elaborated in the following section. It serves as a base for the proposed multidisciplinary lens, further analysis of the literature on supply chain partnerships and, analysis of the case study data.

EPISODIC CHANGE

Episodic change occurs during periods of divergence in which organizations move away from their equilibrium conditions (Weick and Quinn, 2004). Prolonged periods of inertia (Huxham and Vangen, 2000) or competency traps (i.e., the preference of an inferior procedure over a superior procedure because the latter one has not been rewarded in its use [Levitt and March, 1988]) lead to a lag in continuous adaptations. Consequently, partners may perceive a discrepancy between the observed and the desired outcomes of the partnership and initiate a program of activities to narrow this gap (Levitt and March, 1988). Episodic change thus comprises discrete events, has a planned nature, and is management driven. Therefore, authors adhering to this change perspective assume the behavior of organizational actors to be determinist and rational.

An example of the episodic change perspective in a supply chain partnering context is given in the case description of a lighting company which passed through a management-driven four-phase plan for supplier development: 1/supply base reduction, in which it reduced the number of direct suppliers from 267 to less than 100; 2/information exchange integration and simplification, in which it implemented a Kanban system for high-volume products; 3/supplier development, in which cross-functional teams between both partners were established; and 4/timely product development, in which product development lead times were cut from 18 months to 14 weeks (Harrison and van Hoek, 2002: 45-50).

CONTINUOUS CHANGE

Continuous change is ongoing, evolving and cumulative (Weick and Quinn, 2004). According to this viewpoint, change lies in practice rather than being initiated by management (Orlikowski, 1996), and results in continuous update of routines (Levitt and March, 1988) and work processes (Brown and Duguid, 1991). Strongly associated with this is the idea of an organization as a learning entity; «it is a range of skills and knowledge that is altered rather than a specific action, as well as the idea that a change is not just a substitution but could also include strengthening existing skills» (Weick and Quinn, 2004: 187).

The case study of Boddy et al. (2000) illustrates the continuous change perspective in a supply chain partnering context where both partners had radically different cultural and structural backgrounds. A material planner of the buying company describes its organization as «a very dynamic organization, it's incredible fast and change is a constant that you live with (...) it's part of the job» (Boddy et al., 2000: 1010). An employee of the same buying company points out that «One of the biggest problems we had —with the supplier— was that (...) they are a very old-established engineering company (...) it was the attitudes, the

way they want to do business (...) flexibility didn't seem important. Whereas to us it was critical» (Boddy et al., 2000: 1010-1011). Consequently, the authors describe how a mutual reconstruction of the joint partnering context leads to cooperative behavior; newly-created structures encouraged individual co-operation that was gradually taken-for-granted: «People are becoming more open with each other (...) I encourage people to share news, particularly the bad news, with each other. If our forecast had collapsed tell people right away, because you know it's going to cause problems (...) make sure they know what the issues are, and get them thinking through how they can co-operate with us to manage the situation» (Boddy et al., 2000: 1012).

AN INTEGRATED VIEW ON TRANSFORMATION

Moving towards the goals of the partnership is likely to be a combination of episodic and continuous change (Pettigrew and Whipp, 1991), as expressed by Gulati (1998: 304): «dyadic exchanges can be transformed significantly beyond their original design and mandate once they are under way». This emergent —i.e. «complex system behavior which is more than the sum of its individual parts because they relate in a non-linear fashion» (Holland, 1998: 122)— nature of change at the corporate level (Mintzberg, 1994) is likely to be magnified at the valuechain relationship level (Boddy et al., 2000), and even more on the network level (Choi, Dooley and Rungtusanatham, 2001). According to this view, organizational transformation can be visualized as shown in **Figure 1.**

MULTIPLE PARADIGMS IN SUPPLY CHAIN PARTNERSHIPS

When reviewing the burgeoning field of literature on partnerships, three mayor groups can be discerned. First, Transaction Cost Analysis (TCA) and literature building on TCA focus on discrete change events driven by appropriation concerns. Associated are the decisions to part-

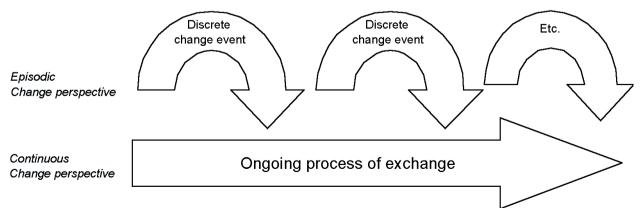


Figure 1. Organizational Transformation

ner or to change an existing partnership. Second, organizational design literature also focuses on discrete events, but emphasizes the coordination mechanisms of the partnership. Third, network literature highlights the ongoing nature of partnerships and their continuous adaptation to changing contingencies.

Figure 2 illustrates how these three bodies of literature contribute to our view of organizational transformation. The lower big arrow in the model thus refers to the network perspective and continuous change. This perspective constitutes the ground upon which discrete changes -upper smaller arrows- as explained in TCA or organizational design literature may take place. It is important to recognize the interrelatedness of the different types of change. For example, in ongoing exchange with continuous small adaptations described by the network perspective, firms may experience misalignment of the governance form of a core transaction due to changing environmental contingencies. Consequently, and drawing from TCA, they will decide upon a more appropriate governance form and initiate an episodic discrete change (e.g., Ahmadjian and Lincoln, 2001; Nickerson and Silverman, 2003). However, one does not always need to review the governance form and an episodic change may consist only of renewing coordination mechanisms as explained in organizational design literature (Grandori 1997: 910).

Dodgson's (1993) case description of a biotechnology partnership between the U.K.'s Medical Research Council (MRC) and Celltech, a leading British Dedicated Biotechnology Firm (DBF) illustrates the various stages of the transformational lens as well as the interrelationship between the associated main concerns. In an initial stage, in 1979, the decision to partner was strongly influenced by appropriation concerns; from the viewpoint of Celltech partnering was required to appropriate novel knowledge via external linkages, whereas from the MRC's viewpoint, partnering with a DBF, rather than with large firms, facilitated the transfer of knowledge and the building of links with industry —episodic change, as described by TCA. As a result of these initial negotia-

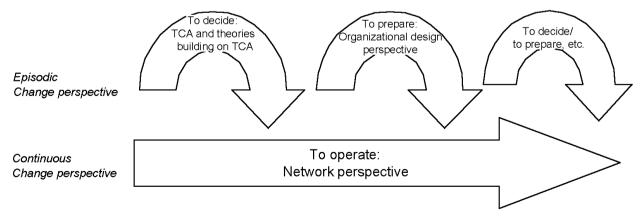


Figure 2. Contribution of Different Bodies of Literature within the Transformational Lens on Partnerships

tions, Celltech was given exclusive rights to exploit MRC discoveries in biotechnology. In preparing the partnership, both organizations employed scientists from the partner to coordinate joint actions and MRC provided Celltech with its first products -episodic change, as described by organizational design literature. The establishment of good working arrangements between individual researchers, however, required an understanding of the pressure facing others and this took time. During the three years of the partnership, practices were established, and an in-depth understanding of the partner's ethos, aims, and culture was obtained --continuous change, as described by network literature. Due to dissent by part of MRC, the original agreement was reviewed after three years and the exclusivity agreement was rescinded by mutual consent: «Both parties claimed to have developed such close working relationships that the existing agreement was no longer necessary and a more general 5-year agreement was signed reflecting greater legal and administrative confidence in one another» (Dodgson, 1993: 86) —episodic change, as described by TCA and literature building on TCA. After five years of operation and convergence of expectations of both organizations, a formal agreement was signed to ensure good communication between both parties --episodic change, as described by organizational design literature.

The three proposed stages of transformation are similar to the stages of alliance evolution as described by Child (1998): 1/formation; 2/implementation; and 3/evolution. The transformational lens differs, though, in two aspects from the Child (1998) model: first, it distinguishes between discrete and continuous changes; and second, its does not suggest that partnership evolution follows a linear path but rather allows discrete, continuous changes to act upon each other in an iterative fashion. The life cycle model of Dwyer, Schurr and Oh (1987), on the other hand, does combine the episodic and continuous change perspective, as it is grounded on the ongoing buyer-supplier relationship and also recognizes major transitions or discrete events in the relationship. The major transitions are more specifically 1/awareness; 2/exploration; 3/expansion; 4/commitment; and 5/dissolution. Nevertheless, if we assume that partnerships remain forever dynamic and subject to emergent change, it seems that there is no unique intrinsic code driving partnerships from one state to another (Medlin, 2004). Therefore, we believe that our more general transformational model may offer additional insights in understanding supply chain partnerships when compared with the approach adopted by Dwyer et al. (1987) life cycle model and the Child (1998) model.

In the following, each of the three bodies of literature will be briefly reviewed to show their relative contribution to the transformational lens and to facilitate the subsequent discussion on their underlying assumptions and transition zones in which assumptions are shared.

TRANSACTION COST ANALYSIS

Transaction cost analysis, as well as literature building on TCA, approach partnerships as something management has to decide upon

(Williamson, 1986, 1991); management may decide to convert an existing arms-length exchange relationship into a partnership (e.g., when a manufacturer reduces its supplier base and intensifies the relationship with the remaining suppliers, as described in Harrison and van Hoek [2002: 45-50]); management may modify an existing partnership (e.g., when a supplier involves its clients in product development processes); or management may decide to establish a partnership from scratch (e.g., when a multinational company chooses to partner with local companies as a strategy to penetrate local markets, as described by Boisot and Child [1999]).

TCA and theories building on TCA emphasize the appropriation concern (i.e., the degree to which an exchange partner converts relational assets or the corresponding exchange results to its own use [Gulati and Singh, 1998]). Consequently, they identify elements that affect the risk of appropriation and the partnering decision. According to TCA, three critical dimensions describe transactions and hence influence whether to partner or not: 1/asset specificity —i.e., degree of idiosyncratic character of investments—, considered as exercising the greatest influence; 2/exchange uncertainty; and 3/frequency with which transactions recur. Assuming that all transactions take place under uncertainty, Williamson (1986) proposes market governance for all non-specific investments, and hierarchical governance for recurrent and idiosyncratic investments. Partnering is located in the middle area of the market-hierarchy continuum and constitutes an optimal governance form for situations with a medium degree of idiosyncratic investments.

Ring and Van de Ven (1992) complement the criteria for choosing the optimal governance structure and propose "risk of the deal" and "reliance on trust among the partners" as consideration influencing the choice. Dyer and Chu (2000) on the other hand contradict Williamson's (1986) claims by revealing inverse relationships between trust and transaction cost. Their large-scale empirical study undertaken in an automobile buyer-supplier setting shows that Japanese business partners have proven to be better trust builders than their American counterparts. Therefore, high asset specificity which is very common in the automobile industry, does not necessarily lead to higher transaction cost and shift the balance towards the market as Williamson claims. The high levels of trust in the relationships of this study rather facilitate the partnership governance form.

Dyer and Singh (1998) criticize theoretical perspectives such as TCA which only adhere to an individual firm-level of analysis. They argue that a firm's critical resources may extend beyond its boundaries. Consequently, they apply a dyadic level of analysis to suggest the circumstances under which a partnership will generate relational rents (i.e., additional profits arising from mutual exchanges and which would not occur if the partnership did not exist [Dyer and Singh, 1998]). Relational rents will be generated as a partnership 1/invests in relationship-specific assets; 2/exchanges substantial knowledge; 3/combines complementary, scarce resources or capabilities that result in the joint creation of new products, services, or technologies; and 4/lower transaction costs compared to competing partnerships.

TCA and literature building on TCA thus constitute an important body of literature addressing supply chain partnerships, and more specifically, the decision to establish a partnership or change the scope of its operation. As briefly summarized above, this body of literature focuses on the variables influencing the partnering decision and on the associated concern regarding appropriation.

ORGANIZATIONAL DESIGN PERSPECTIVE

Once the decision to establish a new partnership or to expand or change an existing partnership has been taken, the body of literature addressing organizational design approaches the partnership as a phenomenon which has to be designed and prepared for operation (Kogut and Zander, 1996). This perspective is based on an anticipated future and emphasizes coordination (i.e., the anticipated organizational complexity of assigning tasks to partners and the consequent coordination, communication, and decision-making [Gulati and Singh, 1998]) by detailing the intended operation of the partnership and the required infrastructure. The organization design perspective is constituted by diverse sub-bodies of literature, such as organization theory, marketing, and interorganizational information systems. The following covers some design elements but is not intended to be exhaustive.

One of the key design elements of a partnership refers to its underlying organizational form. In this regard, Galbraith (2002) extends design from an intra- to an interorganizational focus and specifies interorganizational coordination mechanisms such as informal processes, e-coordination, formal customer teams, a customer accounts coordinator, and a matrix organization. Grandori (1997), on the other hand, offers a contingency theory of various inter-firm organizational forms, rather than treating inter-firm-coordination as a single broad approach to organizing things. After identifying the key contingencies, she specifies several situations that each require their own coordination mechanisms. For long-term industrial buyer-seller relationships for example, she claims that mutual monitoring, informal coordination, as well as liaison activities performed by boundary spanning roles are the most appropriate coordination mechanisms.

Another key design element refers to the communication strategies and influence processes needed to coordinate the partnership. Both may serve as an alternative to the use of power and conflict (Frazier and Rody, 1991). Influence processes can be aimed at boundaryspanning personnel (Frazier and Sheth, 1985; Christopher and Jüttner, 2000) or at entire firms (Frazier and Rody, 1991; Celly and Frazier, 1996). The subsequent communication strategy may take many forms, varying in degree of directness, and in the inclusion of rewards and punishment (Frazier and Sheth, 1985). Influence strategies have been divided into: coercive ones (i.e., pressuring the target to behave in a specific fashion, with the source stressing and meting out the penalties for non-compliance); and non-coercive ones (i.e., centering on the beliefs and attitudes of the target about general business issues, involving little, if any, direct pressure from the source [Frazier and Rody, 1991]); and outcome- or behavior-based ones (Celly and Frazier, 1996).

Another key element for coordinating a partnership concerns Information and Communication Technology (ICT). Modern ICT permit the radical redesign of the way in which companies collaborate, connecting geographically dispersed locations (Christiaanse and Kumar, 2000) and increasing the amount of information that can be processed (Galbraith, 2002). More specifically, interorganizational information systems (IOS, i.e., information and communication technology-based systems transcending the legal boundaries of enterprises [Barrett and Konsynski, 1982]), support or enable the required coordination for different kinds of interdependency (Kumar and van Dissel, 1996). Inadequate specification of the IOS arising from high levels of interdependence may lead to greater ambiguity and increase the scope for misinterpretations and misunderstandings during the operation stage of the partnership (Kumar and van Dissel, 1996: 284).

Organizational design-oriented studies and their focus on coordination issues thus constitute a second relevant body of literature addressing supply chain partnerships. The previous section has briefly addressed the sub-bodies of literature of organization theory, marketing, and interorganizational information systems and their respective recommendations on partnerships.

THE NETWORK PERSPECTIVE

The network perspective is a broad label for studies addressing partnerships as ongoing entities involving continuous adaptations by the buyer and supplier. Within this broad group, the embeddedness perspective (Granovetter, 1985) represents an important contribution. The embeddedness perspective has emerged as an answer to the neglect of ongoing social relationships by other bodies of literature. It claims that careful, systematic attention to the patterns of ongoing personal relationships by which economic actions are carried out -e.g., interlocking directorates- reveals the real motives for certain organizational forms. Social relationships, rather than institutional arrangements or generalized morality, are mainly responsible for fostering trust in the business world (Granovetter, 1985). Hereby, two types of embeddedness have to be distinguished: 1/relational embeddedness, or the level of involvement that a given actor has in his network by virtue of his direct ties with others; and 2/structural embeddedness, or the level of influence which is exerted on a given firm by the ties among all other members of the network in which the organization is active (Granovetter, 1985; 1992).

The Industrial Marketing and Purchasing Group (e.g., Håkansson, 1987; Easton, 1992) further develops the embeddedness perspective in an industrial network context. Dyadic relationships and industrial networks evolve over time through exchange and adaptation processes between the participating actors. Human interaction is emphasized in these processes, and it is increasingly recognized that an informal organization exists alongside the formal one. Here, official contracts,

procedures, and tasks represent the general framework for action but the details of daily and often informal life constitute the real action. It has even been claimed that informal partnering is more effective than formal partnering (Håkansson and Johanson, 1988; Gadde and Håkansson, 1992; Jones, Hesterly and Borgatti, 1997). Informal partnering is usually developed by line managers at the middle management level, and who are directly involved in operations (Håkansson and Johanson, 1988). This increases the importance of boundary spanners at other levels than the board (Christopher and Jüttner, 2000).

The ongoing nature of relationships is also observable in the industrial marketing literature's treatment of channel structure, with a growing shift towards providing deeper analysis of underlying processes and structures (Dwyer et al., 1987; Robicheaux and Coleman, 1994; Cannon and Perreault, 1999). These richer descriptions also include the formulation of antecedents leading to a specific relationship structure as well as the outcomes of the relationships —such as trust (Robicheaux and Coleman, 1994) and satisfaction (Cannon and Perreault, 1999).

Theory with a network perspective thus constitutes the third body of literature complementing the picture of supply chain partnerships. The structural as well as the relational embeddedness of partnerships, and the consequent trust building all influence the continuous change processes of a partnership in an unfolding future.

THE UNDERLYING ASSUMPTIONS MADE BY THESE PERSPECTIVES

So far, we have demonstrated that the three perspectives approach partnerships from different angles and consequently highlight different facets: TCA and literature building on TCA emphasize the decision to partner (or not) and the associated appropriation concerns; organizational design perspectives focus on the preparation of a partnership and the accompanying coordination concerns; and, the network perspective emphasizes the actual operation of a partnership and the associated adaptation concerns. The perspectives are grounded on different assumptions but also show certain transition zones in which assumptions are shared (Lewis and Grimes, 1999). The latter is important for understanding their relative contribution and complementarities in the transformational model. **Table 1** gives an overview of the importance of each assumption for each perspective.

According to TCA, appropriation concerns stem from the behavioral assumptions of bounded rationality (i.e. the inability of economic actors to properly anticipate the complex chain of contingencies that might be relevant to long-term contracts [Granovetter, 1985]) and opportunism (i.e., the rational pursuit by economic actors of their own advantage, with all means at their command, including guile and deceit [Granovetter, 1985]). Authors adopting the network perspective argue that this may be mitigated through the behavioral assumptions of embeddedness and trust; i.e., the social structure of reputation and trusting

relationships obliges partners to behave loyally, which makes it easier to assess each other's likely behavior and to enforce property rights (Jones et al., 1997; Gulati, 1998). Inter-firm trust leads to greater awareness of, or openness to the rules, routines, and procedures followed by the other (Gulati and Singh, 1998), thus permitting gradual replacement of hierarchical controls during the operation stage (Bradach and Eccles, 1989). The concept of trust has to be managed with care, given that trust may also lead to detrimental effects such as malfeasance, force and fraud (Granovetter, 1985; McEvily, Perrone, and Zaheer, 2003).

Whereas the assumption of bounded rationality is central within TCA, its role is rather ambiguous in organizational design oriented theories. On the one hand, the latter body of literature aims to provide repertoires of possible solutions for solving problems, exactly because of the bounded rationality of organizational actors (Grandori, 1997). On the other hand, it assumes that an optimal design, taking into account all relevant variables, is feasible (Galbraith, 2002). However, partnerships operating in a dynamic environment will find it difficult to anticipate all changing environmental contingencies. Therefore, the organization design oriented body of literature, despite its contribution in preparing the partnership, falls short in a dynamic, ongoing operational context. Network literature, on the other hand, fills this gap as it interprets bounded rationality as the organizational actor's inability to foresee all changing contingencies and consequently focuses on the continuous adaptation required for sustainable operation.

The assumption of uncertainty plays a different role in the three perspectives. TCA and organization design oriented perspectives both refer to exchange uncertainty and model it as exogenous to the studied situation. Thus when it comes to deciding whether to partner, all possible forms of governance are embedded in environments exhibiting similar degrees of uncertainty. When it comes to preparing the partnership it means that uncertainty can be modeled and an optimal

	Episodic perspectives		Continuous perspectives	
	TCA	Organizational Design	Network perspectives	
Main concern	Appropriation	Coordination	Adaptation	
Bounded rationality	High	Ambiguous role	High	
Opportunism	High	medium	Low	
Embeddedness	Low	Low	High	
Trust	Low	Low	High	
Exchange uncertainty	High	Medium	High	
Relational uncertainty	Low	Low	High	
Organizational complexity	Low	High	High	
System memory	Low (transaction is unit of analysis)	Medium	High (leads to embeddedness, trust and reputation)	
Rational Action	High (stems from economic motives)	High (stems from instrumental motives)	High (stems from instrumental motives)	

Table 1. Relative Importance of Assumptions in each Theoretical Perspective

design for the partnership can be drawn up. The network perspective, on the other hand, refers to both exchange and relational uncertainty, and consequently models it as exogenous as well as endogenous. Both types of uncertainty may be mitigated through the relationship itself (Granovetter, 1985; Hallén, Johanson, and Seyed-Mohamed, 1991; Uzzi, 1997); i.e., through the behavioral assumptions of embeddedness and trust.

Another assumption refers to the degree of organizational complexity recognized by the different perspectives. TCA assumes simple organizations which may be described by a mere hierarchy. Organization design and network perspectives, on the other hand, assume complex organizations and describe organizations by many characteristics.

In addition, the unit of analysis of time, or the existence of a system memory, differ between perspectives. TCA assumes no system memory —the transaction is the unit of analysis— whereas the embeddedness perspective assumes a system memory —transactions are embedded in a past and anticipated future. The organizational design perspective falls somewhere between; with transactions that are embedded in time —although this aspect is given little prominence. This is consistent with the different roles played by each body of literature in the transformational lens. TCA and organizational design literature adhere to the episodic change perspective as they assume no system memory or a moderate degree of system memory, respective. Iv. Network theory adheres to the continuous change perspective as it emphasizes system memory, inherent in the embeddedness of economic action and associated trust and reputation-building.

Finally, all three bodies of literature assume that action is rational. The nature of rationality differs in each case though. In TCA, it refers to economic arguments as the economically most efficient decision is pursued. In organizational design theory, rationality is based on other motives, such as attempts to influence the partner's attitude (Frazier and Rody, 1991). In the network perspective, rationality stems from instrumental goals such as social acceptance, approval, status, and power (Granovetter, 1985; Håkansson, 1987).

FURTHER THEORETICAL DEVELOPMENT ILLUSTRATED BY CASE STUDIES

We briefly describe two case studies to illustrate the usefulness of the transformational lens for understanding the dynamics of supply chain partnerships. The cases concern Nestlé Spain and two of its strategic packaging suppliers (fictitiously named CartonCo and GlassCo). Basing both cases on the same producer reduces variance caused by the producer's characteristics and facilitates comparison of the cases. Nestlé Spain produces high quality consumer products, ranging from baby food to frozen meals. CartonCo delivers carton packages whereas GlassCo supplies glass. Semi-structured interviews were held with boundary spanners from different hierarchical levels from both the purchasing and supplying companies early in 2005. Interviews lasted

approximately 1.5 to 2 hours and were recorded for subsequent transcription and analysis. **Table 2** shows some key characteristics of the cases.

EXPLORING THE CASES THROUGH THE TRANSFORMATIONAL LENS

A recent episodic Nestlé Spain-driven change has been the introduction of an e-Supply Chain (e-SC) system for interchange of planning, scheduling, and delivery data with both suppliers. Partnering was espoused as being a main driver for implementing the system, with consequent projected benefits associated to digitalization of data —such as error reduction, lower administrative workload— as well as greater information-sharing —leading to identification of surplus stocks. Furthermore, a contractually laid down commitment by the producer to purchase the first two months of forecast needs may reduce the supplier's uncertainty regarding his sales volume. The producer, on the other hand, may benefit from more timely deliveries resulting from better scheduling at the supplier's site.

However, middle management boundary spanners are less impressed by the partnering flavor of the e-SC system and attach more value to partnering expressed on a daily and ongoing basis. The sales manager of GlassCo takes the view that:

«The word partnership is often used as a buzzword, but I see it in a normal sense, in the day-to-day activities. You can call them and ask for a favor, and they can do the same: there is complicity».

The sales manager of CartonCo echoes this view and considers that the relationship with Nestlé Spain has not changed at all due to the implementation of the e-SC system:

«We do not consider [the e-SC system] as something that changes our relationship with the client, it's just another tool (...) adaptations do take place in our daily activities, when there is a certain necessity, and we take a decision and all go in that direction (...) for me there is no other type of change (...) it is the constant adaptation to the necessities of the market».

The actual application of the contractual commitment by Nestlé Spain to purchase the first two months of the shared schedule is also subject to daily and continuous changes. Different boundary spanners, when asked about the contract, give different explanations of the number of

Table 2.	Key Characteristics	of the	Case Studies
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	Case 1: Dyad Nestlé Spain-CartonCo	Case 2: Dyad Nestlé Spain-GlassCo
Duration of relationship	40 yrs	50 yrs
Available pool of suppliers	8-10	2
Number of interviews	9	4
e-SC system	Yes	Yes
e-sourcing marketplace	Yes	No

months the producer is committed to purchase —ranging from 6 to 10 weeks— and therefore do not focus on compliance with the actual terms of the agreement. This seems to be because they wish to give the producer excellent service, as illustrated by a sales administrator at CartonCo:

«When the delivery quantities change —compared with the agreement—, we try to resolve the problem (...) it is important to understand each others problems and do everything which is in our reach to solve them (...) instead of saying "I am sorry, but according to our contract this is not possible" (...) Of course, we are in business, but let's play at least as gentlemen».

The previous examples show that there is a co-existence between higher management driven change towards intensifying partnerships on the one hand, and continuous changes at the middle management level —where partnership is built through the resolution of day-to-day problems— on the other. Returning to the reviewed bodies of literature, we could use TCA to explain the episodic management decision to move from arms-length transactions towards partnerships with selected suppliers. We could use organization design theory to understand the episodic implementation of the e-SC system and the subsequent desired benefits. Finally, we could use network theory to understand the importance of embeddedness and trust in the continuous adaptive processes between middle management boundary spanners in both the purchasing and supplying firms.

EXPLORING THE THEORETICAL ASSUMPTIONS THROUGH THE CASE STUDIES: FURTHER THEORETICAL DEVELOPMENT

In previous sections, the paper drew the fit of different theoretical perspectives on supply chain partnerships to propose a transformational lens. A further development of the lens may begin with an examination of the interaction of its constituent elements; i.e. the different theoretical perspectives and their different main concerns —appropriation, coordination, and adaptation.

It may be argued that high appropriation concerns, laid down in detailed and binding contracts, are related to a low degree of adaptation (Grandori, 1997). In the cases we have used the degree of strategic information-sharing as a proxy for appropriation concerns. More specifically, we have measured the degree of sharing of data regarding demand, inventory, costs structures, capacity, and criteria for decisions. Both cases in this study are characterized by a low degree of strategic information-sharing thus high appropriation concerns. At the same time, neither case shows instances of joint adaptations to market requirements; i.e., the buyer-producer dyad does not generally intend to improve its fit with the environment. Information from consumers and retailers, when available to Nestlé Spain, does not flow further upstream, causing decoupling of the supply chain.

On the other hand, it has been suggested that a high level of adaptation would diminish appropriation concerns (Jones et al., 1997; Gulati, 1998) and coordination concerns (Bradach and Eccles, 1989). Further empirical examination of the relationship between different stages seems required, leading to the first two propositions.

P1: appropriation concerns inhibit adaptation.

P2: adaptation reduces appropriation and coordination concerns.

The relationships between the different stages may also be explored by further focusing on the role of the behavioral assumptions in each stage, which have not been treated clearly until now by the majority of the studies. This paper has made a start by clarifying the differences as well as the overlap between the assumptions made at different stages. The behavioral assumption of trust, for example, is clearly present in the embeddedness perspective but to a lesser degree in the economic and organization design perspectives. A positive relationship between trust and continuous adaptation has been confirmed by several studies (Granovetter, 1985; Child, 1998; Sako, 1998) though denied by others (Cannon and Perreault, 1999). A possible explanation of these contradictory results may stem from different uses of trust but whose specification remains unclear. In this regard, Lane and Bachmann (1998) propose the following classification of trust: 1/value- or norm-based trust, embedded in a social community with common values/morals; 2/calculative trust, the calculation of risk associated with the presumed opportunistic behavior of the business partner; and 3/cognition or expectation-based trust, stemming from predictable expectations about social order in general and specific interactions with others. A multidimensional model for trust recognizes the limitations and complementarities of the different views on trust, and holds that the grounds will vary with the social context and the object of trust, or that trust will vary with the stage of the relationship reached (Lane and Bachmann, 1998). In other words, the assumption that trust develops incrementally during the development of a partnership may be too simplified, as it is not only the intensity but also the nature of trust that varies with time. Nielsen (2004) recognizes the dynamic nature and multi-dimensional role of trust in the different phases of the evolution of a partnership (Child, 1998). He consequently points out that depending on the stage of the partnership, trust can operate as independent, moderating/mediating, and dependent variable.

The case studies also indicate that trust has different meanings in different contexts. Cognition- or expectation-based trust is illustrated by the purchase coordinator of Nestlé Spain, when he refers to Carton-Co:

«They adjust to the agreement; if they say white, it is white, if they say black, it is black (...) it is not a continuous negotiation; we establish conditions and then we work according to those conditions (...) I can see that also in the plant; people who work with this supplier are confident that they will supply a given material within the agreed time frame and with the correct quality (...) they are not stressed about that, they are rather relaxed.»

The administrator of e-purchasing projects of Nestlé Spain echoes this statement:

«They deliver high quality, even in the case of emergency orders (...) and they also have high quality and reliability in the information they provide, that's the reason why we have chosen to ask them to be the pilot case for the e-SC implementation».

The sales manager of GlassCo confirms the existence of cognitionbased trust as he praises the predictable, rational, and highly professional behavior exhibited by Nestlé Spain when it receives customer complaints regarding product quality:

«Neither of us wants to blaim the other; we want to search for the real cause of something which has happened in our or in their production facility, and look for possibilities for improvement (...) when finishing a meeting with Nestlé Spain I always feel that its is a pleasure to work with people who understand you, your problems, and collaborate to resolve them (...) They are technical people who know the properties of our product well, and with whom you can reach consensus.»

Value-and norm-based trust is found by the boundary spanners of CartonCo involved in daily deliveries. This kind of trust has been gradually built up as part of the continuous exchange and adaptation processes over the 40 years in which both companies work together. On the average, the respective boundary spanners of CartonCo have been involved in the relationship over the last 23 years. They put it like this:

«We know each other now for so many years; we know our strengths and our weaknesses...»

Or, according to the sales manager of GlassCo:

«Of course, they demand as well, but always in a very correct manner, with a good moral, a good understanding, they are patient, and that's how we function very well.»

On the other hand, a discrete management driven change (the implementation of a tendering system has caused CartonCo to lose 30% of the sales volume to Nestlé Spain) has caused CartonCo to return to calculative trust, as illustrated by the critical tone adopted by the sales manager of CartonCo:

«[I will have confidence in this relationship] as long as we will be able to reduce stocks —currently we are above the mean— and as long as they will keep their word and buy us the amounts agreed upon in a tender».

The sales manager of Glass Co also refers to calculative trust:

«Trust functions as marketing: I will deliver you correctly, so you will gain confidence in me, and buy me more.»

Following the line of these case study examples, it may be predicted that calculative trust reigns during the decision stage; cognitive trust during the preparation stage; and value-or norm-based trust during the operation stage of the model. Further empirical examination of the following proposition seems required.

P3: The nature of trust that predominates during the various stages of a partnership changes over time: calculative trust predominates when decisions are taken, cognitive trust predominates when preparations are made, and value-or norm- based trust reigns during the operation stage.

Finally, **Table 3** gives an overview of the strength of the various phenomena in each case, based on the above-mentioned examples.

CONCLUSIONS AND LIMITATIONS

Partnerships constitute an important strategy for organizations dealing with a dynamic, complex and ambiguous environment. Nonetheless, the phenomenon is characterized by a stubbornly high failure rate (Gulati, 1998; Spekman et al., 1998; Boddy et al., 2000). Consequent-ly, scholars are increasingly calling for research into the associated dyad level (Dyer and Singh, 1998; Lane and Lubatkin, 1998) in order to improve understanding of the partnering phenomenon and explain the causes of failure and success. This paper argues that understanding partnerships can be substantially improved by approaching them as inherently dynamic entities that transform themselves to deal with a constantly unfolding future. This paper therefore sets out to fill part of the gap in the literature by developing a comprehensive transformational lens through which to view supply chain partnerships.

The transformational lens is grounded on two leading change perspectives, concerning episodic versus continuous change (Orlikowski, 1996; Weick and Quinn, 2004). This is because dyadic transformation is characterized by a blend of both types of change. The transformational lens also integrates three dominant bodies of literature on partnerships by demonstrating the specific change perspective of each of them: 1/TCA and literature building on TCA, with a focus on episodic change; 2/organizational design literature; also with a focus on episodic change; and 3/network literature, with a focus on continuous change.

Exploratory case studies of a major food producer with two of its strategic suppliers illustrate the co-existence of the different types of change and show how different boundary spanners on both sides of the dyad experience changes in a different way. The case studies subsequently aid in exploring the assumptions of the different bodies of literature which constitute the transformational lens, and the definition of propositions for further investigation. The most clearly shared assumption regards the bounded rationality of organizational actors. Bounded rationality leads to appropriation concerns in TCA, to coordination con-

Table 3. Strength of Various Phenomena	s Phenomena [†]
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	Case 1: Dyad Nestlé Spain-CartonCo	Case 2: Dyad Nestlé Spain-GlassCo
Appropriation concerns	+++	+++
Joint adaptations	_	-
Value- or norm-based trust	+	+
Cognition-based trust	+++	++
Calculative trust	+	+

+: - not present; + slightly present; ++ intermediately present; +++ highly present

cerns in organizational design literature, and to adaptation concerns in network theories. High levels of appropriation concerns seem to be accompanied by low levels of adaptation (Grandori, 1997; Jones et al., 1997; Gulati, 1998), which is confirmed by the exploratory case study data. Another shared assumption regards trust. However, the nature of trust (Lane and Bachmann, 1998) in the various bodies of literature is not always clearly defined. This may help explain contradictory research findings regarding the role of trust in partnership outcomes. Building on previous work on trust (e.g., Child, 1998; Nielsen, 2004), the exploratory case studies show instances of cognition based trust, calculative trust, and value- and norm-based trust.

The proposed transformational lens contributes in two respects. First, given its comprehensive nature, the lens aids in obtaining a more complete picture of partnerships than would be achieved by considering each body of literature on the subject in isolation. The unique contributions made by each body of literature is taken into account, as are their complementary features and transition zones between their assumptions. The existence of transition zones indicates the bodies of literature are complementary rather than contradictory (Lewis and Grimes, 1999). Second, the proposed transformational lens sheds new light on the temporal aspect of partnerships, when compared with other temporal models. This contribution is novel in two respects. First, it allows for multiple iterations of different types of changes and the associated stages of a partnership, which does more justice to partnership reality than the overly restrictive linear path of a life cycle model (Medlin, 2004). Second, it explicitly distinguishes between episodic and continuous change, something absent in the Child (1998) model and only implicit in the Dwyer et al. (1987) model.

Finally, a potential limitation of this paper and the set of propositions it develops is that it focuses on the dyadic setting, whereas network influences may shed new light on the subject. Therefore, once a more thorough understanding is obtained regarding the propositions made, the field of inquiry might be extended to the network level. For example, a promising line of inquiry concerns the impact of appropriation, coordination, and adaptation concerns of one dyad in the formation of other dyads in the network of a specific focal organization. In a similar vein, a future research line could explore the relationship between the type and strength of trust in one dyad, and trust in the other dyads in a network of a specific focal organization.

Another potential limitation may lie in the longitudinal research setting, which is the most suitable one to test the given propositions. A longitudinal research setting requires considerably more resources than a cross-sectional context. The latter may give satisfactory results though, if dyads in different stages of development are considered.

All in all, we hope to have provided a novel and stimulating perspective for further multidisciplinary inquiry into the fascinating though still underdeveloped phenomenon of supply chain partnerships. The theoretical propositions contained here may serve to guide future empirical research in this field. **Desirée Knoppen** is PhD-candidate at ESADE Business School in Barcelona, Spain. Her research interests lie on the crossroads of supply chain management and organizational behavior.

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