

Structuring Interaction Dynamics in a Close Collaborative Relationship: A Sense-making Perspective

Competitive Paper

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Abstract

The purpose of this paper is to describe the dynamic interaction processes that lead to a shared sense of social order in close collaborative relationships. Utilizing a single interpretative case study approach, the empirical evidence is based upon interviews, reflective practices, observation and documents. The paper details nine interaction episodes written in narrative and that provide valuable insight into the dynamics that occurs in the evolution of a collaborative relationship. The pattern that emerged from the research can be best described in terms of overlapping processes of sense-making and sense-giving, within which shorter temporal phases of sensing occur, at an inter-individual and inter-organisational level. The temporal phases which emerged are an alteration between divergence and convergence triggered by critical events in interacting that focus on maintaining and re-negotiating a sense of social order between the actors.

Key Words: Sense-making, interaction dynamics, divergence and convergence, social order.

INTRODUCTION

This article explores the dynamic sub-processes inherent in a close collaborative relationship and how these processes interact to create that shared sense of social order. Few would disagree with the notion that there are underlying dynamic forces mobilising, driving, and energising companies to act, interact, and collaborate. How to conceptualise these dynamic sub-processes remains a relatively neglected issue in the literature. As Windischhofer et al. (2004) noted in their review on the development of research on dynamics within IMP research, there is a tendency amongst IMP researchers to “focus on structural aspects of processes or elements, instead of focusing on dynamics” (21). However not focusing research efforts on capturing empirically the underlying dynamic processes of inter-organisational interaction is not a research deficit strictly restricted to the IMP literature. Even within the broader literature on buyer-seller relationships, Olsen and Ellram (1997) have observed that the majority of research tends to look at relationship characteristics and benefits (e.g. Dwyer and Singh, 1998; Spekman and Mohr, 1994), and/ or on the establishment and development of buyer-seller relationships (e.g. Gansen, 1994; Heide and John, 1990; Oliver, 1990; Dwyer, Shurr and Oh, 1987), or suggesting approaches to managing the cooperation process (e.g. Krapfel et al. 1991), but with little attention to those

processes occurring at a deep level. Similarly, within the literature on collaborative new product development, most researchers focus on the determinants of interacting with others (e.g. Takeishi, 2001; Bonaccorsi and Lipparini, 1994), or on the development process of strategic partnerships (Milson et al. 1996), or on the management of product development within a collaboration or network (Wynstra and Pierick, 2000), but with scant attention to process. Notably, Doz (1996) arrived at the same conclusion in regards to the literature on strategic alliances, where he noticed that there has been an over dominance by most researchers to focus either on explaining patterns of alliance formation (e.g. Daz and Teng, 2002; Kanter, 1994), or on relating alliance outcomes to the characteristics of the partners (Hagedoorn and Schakenraad, 1994), and a failure “to capture the process dynamics of collaboration” (Doz, 1996: 56).

In closing this gap, our focus here is dynamic processes. In this fashion, the research been put forward here is clearly in the ‘opening the black box’ tradition by seeking to move away from the preoccupation amongst traditional studies to focus on structural aspects of interaction, which only limit explanations of interactions to ‘snapshots’ and linear correlations between interacting variables to providing a conceptualisation for explaining the underlying dynamic processes that generate that shared sense of social order in a close collaborative relationship. The rest of the paper is organised as follows. In the next section, the extant literature on interaction dynamics is critiqued. Next, the methodology employed in this research is presented. The results of the case analysis are then discussed from a sense-making perspective. Subsequently a sense-making framework for understanding interaction dynamics in close collaborative relationship is presented. In the concluding section, academic and managerial implications are explored. Limitations and future directions for research are also discussed.

A CRITIQUE OF PRIOR RESEARCH

It would be misleading to state that extant literature has not taken a dynamic process perspective to how cooperative arrangements and their interactions unfold in the establishment of a negotiated belief structure (see Hakansson, 1982; 1987; Ford, 1997; Doz, 1996; Buchel, 2000; Ford et al. 2002; Welsh and Wilkinson, 2002; Ring and Van de Ven, 1994). For Hakansson and others in the International Marketing and Purchasing Group (IMP) cooperative behaviour is seen as a series or sequence of interaction episodes, that overtime leads to the establishment of clear expectations; an understanding of the roles and responsibilities of each party and the institutionalisation of a cooperative relationship. However, there is a tendency amongst IMP research to emphasise explicit structural constructs as a basis for explaining interaction processes. From an alliance perspective, Doz (1996) proposed that capturing empirically the process dynamics of collaboration lies in understanding the evolutionary learning processes that occur in a cooperative relationship over time. Doz proposed that contextual conditions determine how learning unfolds between the partners. As the partners interact, they learn both cognitively and behaviourally about one another. This new knowledge educates the partners about the appropriateness, the efficiency and effectiveness of their initial conditions, which in turn leads partners to make adjustments to their relationship by moving away from their initial conditions. The importance of Doz’s research is the evidence that learning processes mediate between initial conditions and successful collaboration indicating that interaction is evolutionary. Indeed interactants go through continuous cycles of learning, re-evaluations and re-adjustments in order to make sense of their interactions and to

achieve a social order. However, since the central focus of Doz's work was on how alliance conditions and context determine how the learning process unfolds in an alliance, the research tended to focus more on the technical aspects of the collaborations operations rather than on the relational aspects of the interaction (Das and Teng, 2002). However, in saying that it does not negate the importance of Doz's insight that interaction evolves from initial expectations through learning processes to a state of negotiated convergence.

From a more relational perspective, Buchel (2000) found that the underlying forces driving joint venture development were actor differences in interpreting events during interaction. For the author, cooperative arrangements go through alternating processes of divergence and convergence as a result of these differences in interpretations, which are based on priori belief structures (similar to Doz's initial conditions). Because beliefs are likely to vary among interactants, conflict should arise in an effort to reduce the variety in beliefs and to establish a group-based understanding of expected and acceptable behaviour. Typically, the idea of priori beliefs on which the interpretation of current interactions is constructed suggests that some form of perceptual framework is at work. This is Welsh and Wilkinson (2002) point. These authors brought forward an interesting concept of idea logics as a basis for understanding the sub-processes of interaction that lead to the establishment of a social order. According to these authors, ideas encompass the perceptions that actors have about self and others, their preconceived beliefs about the way the world works, appropriate normative behaviour, values and attitudes. Ideas or schemas underlie the actions of actors which themselves evolve through interaction. Over time through experience and interaction, these ideas will be reinforced, communicated, modified, shared and combined with other ideas. Welsh and Wilkinson refer to this as schema couplings, a process that reflects the way in which the ideas underlying two organisations actions and responses are interrelated and adapted to each other over time in such a way as to be consistent with an ongoing relationship. Approaching a similar vein of thought is Ford et al. (2002) who suggested the concept of network pictures as a basis for understanding interaction dynamics in business networks. These network pictures are the different views or perceptions each interactant holds about themselves as well as the extent, content and characteristics of their network surroundings (see Ford and Redwood, 2005; Ramos et al. 2005; Henneberg et al. 2006). This network picture can be utilised as a research tool for understanding the actions, reactions and interactions of actors within a business network (Ramos and Ford, 2009) and within a dyad (Leek and Mason, 2009). However, both conceptualisations just presented are incomplete. The former's contribution is more structural than processual in nature and does not fully explain or capture the underlying interaction processes (Geersbro, 2004). While the latter focus tends to be more on the characteristics of pictures and networking rather than on understanding the interconnections between pictures and networking and so distracts attention from dynamics (Geiger and Finch, 2009)..

Incorporating the foregoing logic is a related, yet more comprehensive conceptualisation, grounded in social psychology and found in the theoretical discussion of Ring and Van de Ven, (1994). For the authors, the institutionalisation of a cooperative relationship is a gradual dynamic process consisting of a repetitive sequence of negotiation, commitment and execution stages or events. However, they argue that underlying these heuristics is a more complicated set of informal social-psychological dynamics at work that explains the evolutionary processes of cooperative inter-organisational interactions being grounded in the motivational and

cognitive predispositions of the interactants to engage in sense-making processes. Sense-making is literally just that: the making of sense. It is the process by which actors organise their experiences about reality and in part rationalize what they are doing (Weick, 1995). According to Ring and Van de Ven (1994), it is sense-making that permits economic actors to construct a shared understanding of each others identity in relation to the other, which in turn enables them to become connected to one another through the establishment of psychological contracts and personal bonding.

Recently additional support for the idea that sense-making underlies the process of interaction has been forthcoming from the literature. In a recent theoretical discussion, Geersbro (2004) argued that the concept of sense-making needs to be brought into the realm of interaction, relationships and network studies because the “processual aspects of sense-making provides a focus on process dynamics”. From a strategic change perspective, Gioia and Ghittipedi (1991) have extended the sense-making concept further by describing sense-giving as a pattern of sense-making in the observed interactions between senior and middle management. For the authors, sense-making is the process by which human beings organise their experiences about reality, that is the construction of meaning (Weick, 1995) while, sense-giving, on the other hand, is concerned with the process of attempting to influence the sense-making and meaning construction of other interactants toward a preferred redefinition of reality (Gioia and Chittipedi, 1991). Based on a series of commentaries about evolutionary processes, Arino et al (2002) point to the importance of sense-making processes to increasing the level of relational quality. Both Doz (1996) and Adobor (2005) make a similar point. Buchel (2000) points to sense-making for explaining cycles of convergence and divergence during interaction. Nevertheless, no systematic attention has been devoted to the concept of sense-making and sense-giving as a means for understanding and gaining insights into structuring interaction dynamics (Geersbro, 2004). Like Ring and Van de Ven (1994), what is being suggested here is that making and giving sense underlies the process of interaction because it facilitates the construction of a social reality in which actors can cooperate.

METHODS AND DATA

This paper reports on an in-depth case study on the interaction dynamics that occurred in the evolution of a close collaborative relationship between a software development company (ANU) and a window & door joinery manufacturer (Minerva) in the development of a Mobile Ordering System. Data was collected from four main sources: interviews, reflective practices, documents and observation. The variety of data collection techniques allowed for greater possibility of discrepancies or anomalies to be noted in research data, and should compensate for any limitations in individual collection techniques (Eisenhardt, 1989). Multiple sources also counteract potential validity concerns in relation to theory development, because multiple lines of enquiry converge towards a particular proposition or conclusion (Yin, 2003). All in all, 14 interviews were conducted with the key members involved in the development project. Of these 10 were personal in-depth interviews and 4 were telephone interviews. The personal interviews ranged in length from 1 hour to 3 hours each. The telephone interviews lasted about 10 to 30 minutes, with the shortest of these aimed at collaborating existing information obtained via interviews, documents etc or at alleviating confusion over some point. The telephone interviews were mainly made after personal interviews had been carried out. The reflective practice involved the researcher analysing data gathered from in-depth interviews and documents, putting it

into a story and then presenting that story to the respondents. Gaps of understanding about what was going on, where evident in the narrative, were subsequently filled in by the respondent. In this way the participants became, in part, the analysts of the data, and in the act of writing the narrative and listening to the respondent the researchers were able to immerse themselves in the participants' experiences and get at *what is going on* (Denzin, 2001). Documentary data, printed as well as electronic, was collected from various sources such as annual reports, academic databases, commissioned company reports and product design specifications. In most instances, documents were studied in preparation for interviews. Observations influenced and contributed to casework to the extent that they facilitated the researchers in observing the products and production process in use and therefore provided a greater contextual understanding of the product concepts and development issues under research

Data Analysis

In order to categorise, identify and structure the dynamic processes that occurred in the interactions between the actors, this research builds upon the analytical ideas of Pettigrew (1997), Fox-Wolfgramm (1997), Hirschman (1986), Lincoln and Cuba (1985), and Glasser and Strauss (1967), and uses comparative analysis. This analytical strategy incorporates a constantly iterating cycle of deduction and inductive category coding and pattern recognition across categorised phenomenon (Pettigrew, 1997). In this analytical model, social phenomena were continuously being compared across categories so that new dimensions could be discovered. The discovery of the dynamic processes of interaction began with the analysis of initial observations. These initial observations then underwent continuous refinement throughout the data collection and analysis process, because data collection, analysis and interpretation were occurring simultaneously, and so continuously fed back into the process of category coding. Category codes and their content were continuously compared with previous events and so new insights in to the dynamics occurring within the interactions were discovered (Lincoln and Cuba, 1985). Nvivo, qualitative analysis software, was utilised to manage the process of coding, retrieving, memoing and data linking. This resulted in the data been aggregated and mapped in a series of charts, summarising nine interaction episodes in the evolution of the collaboration.

FINDINGS

The following project narrative traces the dynamic interaction processes inherent in the product development collaboration between Anu and Minerva on the development of a mobile ordering system. Table 1 (see appendix) presents an example of the most aggregated data summaries of the interaction episodes that were produced, chronological organised by the main actors in the process, detailing both actions and perceptions.

Episode 1. Convergence: Expectations for Cooperative Development. In November 2004, Anu, a small entrepreneurial software firm entered into a cooperative arrangement with Minerva, the second largest window and door joinery in England to co-develop a remote document management system. Minerva used a management information system that was totally manually based using paper records and rooted in old technology that allowed valuable opportunities and significantly large amounts of revenue to leak out of the business. The partnership was entered with great expectations and quite different motivations. Both companies hoped to obtain within a relatively short period of time a product that would satisfy their current needs. For Minerva, it centred on a management information system that would solve the crisis

they were having with the efficiency of their operational process and they believed that Anu had the innovative capability to achieve where others had failed them in the past. For Anu, Minerva was essentially a beta site in which they could develop a product or a spin-off with vast niche-market potential. They also viewed Minerva as a potential customer amongst many others in the joinery industry. The positive reputation of fairness and trustworthiness that Minerva had exhibited in their prior dealings with other companies, strengthened Anu's expectation that Minerva would not mistreat them and they were in fact the right company to collaborate with. This was an important issue for Anu, because due to the relative ambiguity of the product idea and the relative dependence on Minerva as a potential customer, they were unable to avail themselves of traditional safeguards against opportunism, such as contractual protection. However, despite Anu's confidence in Minerva to forgo opportunistic behaviour, they were nevertheless nervous about a number of other issues concerning the collaboration, in particular, the investment risk involved and Minerva's lack of technological experience.

Episode 2. Divergence: Negotiations Begin. From the outset, the initial interactions between the two companies was exceedingly light, distant and too discontinuous to allow any meaningful discussion on the development project. The lack of interaction also meant that both parties did not have the opportunity to learn and appreciate each other as individual organisations and also as potential collaborators. As a consequence, the positive expectations that both parties initially held in relation to cooperating with each other soon began to gradually fade into the background. Neither party could reach agreement on the actual product idea and so difficulties in cooperating with each other began to manifest. As already stated, each party had their own privately harboured goals about what the collaboration would do for them. Anu were proposing that the product concept should focus on creating a remote document management system because privately they felt that the market potential in the Joinery industry for such a product was enormous and would be a big money earner for the company. In contrast, Minerva was not interested in developing a product that could be used by their competitors. Their primary concern was on developing a product that would solve their particular problem and give them a competitive advantage. For Anu, the long-term market potential of developing a once-off idea was low and saw no value in pursuing it. As a consequence, conflict arose between the two companies based on these initial harboured expectations. Frustrated at the failure of reaching a basic agreement on the product idea, both companies began to harbour doubts about their compatibility of cooperating successfully together and negotiations broke down. Neither one could see the value in their counterpart's ideas or suggestions. Because the relationship lacked any relational characteristics, the conflict that ensued was directed more towards affective rather than cognitive. For Anu, the problem centred on Minerva's lack of technological experience and know-how. For Minerva, the problem centred around the inability of Anu to express their idea in a clear fashion, that was understandable to them and one that provided value to them. Furthermore, Minerva felt that Anu were adopting an intellectual high ground, that is in some way they were intellectually superior than Minerva.

Thinking back on those initial meetings, we weren't talking to them in the right way. We were not spelling out to them or expressing to them anything that would solve their problem or help them in some way. They were probably thinking where's the value in this for us (Anu).

They had this idea of what the product should be, but they couldn't express it in a manner that made sense to us. In fact, it made no sense to us how this was going to solve the problem we had at

Minerva. We just did not understand what they were talking about...they were taking it very much from the intellectual point of view (Minerva).

At this time, the outlook for the partnership did not look promising. The technological oriented background of Anu and the way they operated was so different from Minerva that it made communication extremely difficult. Indicative of the software industry, Anu operated in a very formal, structured and thoroughly documented manner, while in contrast, Minerva are very informal, flexible, and interactive. In essence, both companies worked on quite different assumptions about how things should operate. The breakdown in negotiations between the two companies was further compounded by the fact that the initial interactions were not extensive, nor intensive, and so, they did not allow either side to gain appreciation of the difference in how the other operated. Despite negotiations breaking down, both parties, nevertheless had evaluated the potential of the relationship in terms of the likelihood that the collaboration will create value and based upon a positive assessment, communication between the organisations re-started. Based on their failed attempt at interacting with each other, both parties had learnt and realised that if they were going to be able to cooperate successfully, they would have to learn how to operate and communicate effectively with each other. This implied that both actors had to make adjustments to their initial expectations about cooperating together, especially in relation to the intensity by which they interacted. Both partners understood that more integration between the two companies was required and regular meetings were seen as the solution. In contrast to the previous interface between the two companies, the commitment to intensify the interaction had a substantial improvement on the relationship between the two parties.

Episode 3. Convergence: Sense-making and Sense-giving, Adjustments are made. The fact that both Anu and Minerva agreed to meet on a regular basis and in a more intensive manner, communicated to each other a sense of commitment to the project. It also re-enforced the positive expectation that the parties could cooperate together. Thus, it facilitated a sense of cooperation between the partners and a feeling, that they are part of the project. Also noteworthy, is that the sense of commitment that was being portrayed at an inter-organisational level was seen at an individual level to mean that the relationship was important and that perhaps, there was a long term-orientation to the cooperation. As this sense of longevity in the relationship grew, the formal role behaviour and communication exhibited in earlier interactions was incrementally substituted over time by a more informal *qua persona* behaviour and a number of interpersonal relationships formed. For instance, members of the development team began sharing personal information about each other, indicating that there was a sense of trust emerging between members. According a Minerva representative

In one way we didn't know who they were and what they were capable of. Meeting up with them every Friday allowed us to figure out what they were about? How they work? Are they trustworthy? Are they honest? I suppose they were doing the same thing to us. We started to learn and adapt to each other's ways of doing things we began to appreciate each other's ideas and suggestions. I think when you meet on a regular basis and you are actually talking to each other, answers to some issue inevitably come up or at least there might be an idea of the way that we should progress.

Episodes 4 and 5: Divergence: Concern Over Project Feasibility. Convergence: Evolved Understanding Enables Action. Although both parties had agreed in principle that the project should focus on a mobile document management system, there was never the less a certain degree of unspoken uncertainty and mistrust on Minerva's part

about the actually feasibility of the idea. Their mistrust stemmed from their prior experiences in relation to systems development failure and so Minerva began to show signs of nervousness that they were committing to an uncertain course of action. However, through their continuous interactions a communication pattern had started to emerge that allowed the actors to sense and understand the underlying nuances of each other's identity. This was in part facilitated by the inter-personal relationship that was forming between boundary spanners. In that, they began to share their company concerns with one another and would also feed each others suggestions on how best to approach an issue with their respective organisations. In addition, the presence of relational norms was starting to materialise and strengthen within the relationship itself. As a consequence both companies began to become concerned over the welfare of the other and in essence started to empathise with how the other may be feeling or how issues might affect the other or even how to present issues to one another, so that they are more easily understood. As a consequence, Anu sensed that while Minerva could see the potential benefit of a mobile information system, they nevertheless were not convinced that it was technologically possible, or feasible. They realised, that unless Minerva could actually visualise the idea, their commitment to the project would diminish. This familiarity enabled Anu to form an understanding of how Minerva were possibly feeling in relation to the project and also, the action required to rectify what Anu perceived to be a problem.

It was the way they were acting, or it was some little thing that was said ...I just knew that they were not convinced that the project could work. I suppose when you work closely with some one you learn to pick up the small things about each other (Anu).

Minerva's fears over the feasibility of the product concept diminished and the true potential of its value to the company started to materialise. In addition, Anu's fears over Minerva's lack of commitment also diminished since both partners shared a renewed sense that the product concept would work.

Episode 6: Divergence: Perceptual Filtering, Expectations suffer, Evaluation. As a result of the growing levels of trust in each other's ability there was a mutual expectation that the concept would be developed very quickly. Both parties were interacting and cooperating very effectively and efficiently. The project continued with requirement and technology analysis. Anu used the regular meetings to elicit the requirements from Minerva and a detailed design specification document (product concept) was co-developed. However, Minerva rejected the solution on the grounds that it was not practical and that it did not reflect the way the joinery process operated. Immediately tensions arose between both companies. Both Anu and Minerva thought that they were working on the same product concept when in fact they had different interpretations of what the product concept was and so divergence ensued. The mismatch between what Minerva wanted, the requirements extracted from them and the concept solution presented by Anu was as a result of poor information exchange and misinterpretation. For Anu, Minerva filtered out valuable information that they thought was not important or irrelevant to the project, thus, restricting Anu's understanding of the process and the requirements necessary to develop an effective solution. The outcome emanating from the failed concept was two fold. First, both parties became frustrated with the lack of meaningful progress on the task, despite the increased interaction that was occurring between the two. This in turn led the partners to doubt once again the future of the relationship. Second, both parties realised that the demands of the project were far more complicated than initially conceived and doubted whether they were sufficiently compatible to co-develop successfully. In

essence, expectations suffered. For Anu, the initial goal of a quick market introduction of a new product was diminishing and for Minerva, a solution to their problem seemed inaccessible and potentially reconfirming earlier suspicions that the concept was not practical. Both parties began to assess the relationship in terms of future economic equity, that is rewards and costs, and also in terms of relational equity.

Episode 7. Convergence: Personal Commitments, Deepening of Psychological Contracts, Adjustments and Individual Shared Understanding. Mediating the divergence between the two companies was the personal bonds and psychological contracts that were evolving between certain key boundary spanners. The increasing levels of trust emerging from these inter-personal relationships produced a greater willingness to jointly adjust to seek ways to improve the efficiency of the cooperation, even acting outside the boundary of their respective organisational roles and the formality of the weekly meetings. For instance, on his own initiative, one Minerva Manager (MM) informally invited his counterpart in Anu (AM) to spend several days with him going to sites and seeing how the process actually worked, from site, to factory, to manufacturing, to fit. The on-site visits allowed Anu manager to gain first hand experience of the working practices of Minerva in terms of understanding the functionality of their operational process.

I think going out to the sites with the Minerva representative was a turning point in our relationship and this project. Obviously, the fact that he invited us out to the sites showed commitment on his part and gave me a sense that he had confidence and trust in our ability to deliver on the project. In my opinion, the fact that he took time out to show us what we needed to know was a good sign. It said that he thought everything was going to work out... I also think by spending days out on sites, 10am till 10pm, we showed MM, that we were committed to this project. That we were willing to do what it took to get it done ... they want you to get down and dirty. They want plain talking, no messing, just get on with it (Anu: AM).

Although the inter-personal relationship and the interaction between the two individuals prior to the on site visits were considered by both to be intensive, the relationship nevertheless further intensified in the aftermath. During the on-site visits and working closely together, personal information such as private issues, past occurrences, future plans was disclosed and shared between MM and AM:

You do ask personal questions of each other, perhaps a bit tentatively at first, perhaps apologising for prying, but eventually people tell their stories. You bring them in to your confidence and your trust. That's the way you get to know that other person very well. That is what happened between MM and myself. We had become friends (Anu: AM).

As a consequence of the inter-personal relationship between MM and AM and the on-site visits, their individual's perspective of the other changed, as did their roles in their interactions with each other. The enhanced ability of the two individuals to rely on their personal bonds and the belief that each was committed to the project had important implications in deepening the personal psychological contract amongst the two individuals, especially regarding the need for cooperation between their respective companies. In essence, they both trusted the other's ability to overcome any divergence that may occur at an organisational level in the future.

There was a personal relationship between myself and MM from Minerva. We trusted one another and I knew that he would vouch for us and pass on his opinion about us to Minerva. In a way I knew he was going to be our product champion in the company... We believed that the relationship I had developed with MM was the key to Minerva (Anu: AM).

Episode 8. Divergence: Entanglement of Qua Persona Relationship and Role Relationship. A new product concept was co-developed. However tensions soon

resurfaced between both companies when there was a lack of feedback on the proposed concept from Minerva. Minerva's bureaucratic nature meant that the proposed concept had to go through proper organizational channels which was perceived as sluggishness by Anu on Minerva's part to progress the project. Although personal assurances of commitment were been communicated between AM and MM, Minerva's lack of committed action did not confirm what AM was expressing. Tensions and frustration increased between Anu and Minerva which resulted in a personal conflict occurring between MM and AM in which it was expressed that AM was considering exiting Anu from the collaboration. The conflictual tension that was present in the collaboration had entangled or was entangled within AM and MM's *qua persona* relationship and their role relationship. Thus, conflict was happening at both an inter-organisational and individual level. Both AM and MM were utilising both aspects of their personal and professional relationship as a means to argue their way to a new sense of convergence. This entanglement is clearly exemplified in the following quotation:

It was a difficult time for me. I was essentially stuck in the middle playing both sides. I had to keep both camps happy. I was essentially the liaison between the two. While on a personal level, I am friends with AM and I really like him. We work well together and I want to see him do well, however, I am not going to do anything that would damage Minerva or go against Minerva in any way. I told AM that if he wanted to leave that was fine but that the commitment was there. We had issues in Minerva about the product concept that needed to be resolved internally. I told AM that it takes time to get everyone on board from different departments. I think AM thought that everything should happen instantly, but it doesn't work like that. I tried to reassure and convinced him that everything was going to be all right... at Minerva I was trying to resolve the opposition to the concept. I was trying to keep both camps happy. When you look at it, I was wearing two hats, a Minerva hat and Anu hat (Minerva: MM).

Episode 9. Convergence: Inter-Organisational Shared Understanding. Once again it was the inter-personal relationships between key boundary-spanning managers that resolved the crises between both companies. At an inter-personal level, key individuals debated and voiced their concerns over the future of the project and the collaboration. Personal assurances that the project would succeed were given and as result, threats of exiting the relationship at an inter-organisational level were resolved. A formal meeting between the two companies was arranged to discuss the concept and the cooperation in detail. However, prior to the formal meeting, informal discussions over how the concept should be presented and in general how to interact occurred among key individuals. As a result of the weekly inter-organisational meetings, the inter-personal relationships and the interaction experiences gained with the on-site visits, Anu and Minerva had learnt how to operate together and the formal meeting was a success. At the meeting both parties openly negotiated the product concept. Criticisms and concerns were expressed and acknowledged on both sides and a shared understanding of what the concept and the cooperative partnership would do for both companies began to materialise. However, it has to be pointed out that this understanding did not entail a common understanding of all issues. Indeed, there were different interpretations, disagreements and concerns over information security and functionality of the concept but a shared understanding of expected and accepted behaviour between both organisations had materialised for the future.

CASE DISCUSSION: A SENSEMAKING PERSPECTIVE

Similar to Ring and Van de Ven's (1994) determination that "the development processes associated with cooperative IOR's are cyclical, not sequential" (112), we argue that the findings of this case study demonstrate that through the processes of

sense-making and sense-giving, a co-evolutionary process occurred whereby the case study companies, Anu and Minerva, grew together from an initial state of divergence to an evolved state of group-based understanding of accepted and expected behaviour. Table 2 (see appendix) clearly illustrates this co-evolution. For example, both Anu and Minerva's understanding of each other's identity evolved from an initially state of inaccuracy. Similarly, an acknowledgement and understanding of each other's processes and culture materialised from an initial state of significant differences. This raises the question what happens in this co-evolutionary sense-making and sense-giving process that results in the creation of this social order that allowed the companies to cooperate? The answer to this question is not a simple one and involves a multitude of inter-related and overlapping processes (Doz, 1996). The discussion starts with one of the most noticeable findings from the case study. That is, the observed cycle of alternating divergence and convergence (see Table 1 in appendix) in the interactions between Anu and Minerva. The findings clearly indicate that the companies argued their way to an established social order. This assertion is consistent with both Weick (1995) and Buchel (2000). Indeed, Weick conceptualised that conflict is an important communicative medium through which actors voice their concerns, re-negotiate values and beliefs to establish relational stability. Buchel essentially makes the same point in relation to joint ventures. For Buchel "cooperative arrangements go through alternating processes of conflict emergence and conflict reduction through the establishment of a group based understanding of accepted and expected behaviour" (2000; 653). In the case study, divergence was caused by both Anu and Minerva relating their interaction to past experiences, retained in their frames in order to make coherent sense of a situation (Ifvarsson, 2000). These past experiences were subjective belief structures (Weick, 1995) that determined how both companies defined the way in which they saw what they thought they should see and because these experiences are subjective, differences in interpreting events occurred (Buchel, 2000). This is clearly evident from the case. For instance, when examining the interaction episodes from 1 to 3. In episode 1, both parties had developed a subjective picture of the other based on their prior expectations about each other and the task to be performed. This subjective understanding was their foundation for their interaction and norms of behaviour (Weick, 1995; Gioia and Poole, 1984). What is important to realise here about these expectations is that some were explicit and shared (to develop a new information management system) and some were privately harboured (as detailed earlier, these expectations were based on the strategic context of the company), thus only a tentative understanding of each others expectations could have been known by either party. Anu and Minerva had conflicting frames of reference and so, when both companies projected onto the other their view of the way the world works, it became baffling and ultimately did not make sense to either side (Doz, 1996). Why? Because the interactions did not conform to expectations and divergence consequently ensued.

As a result of the low level of intense interaction between the two companies, there was a failure by both actors to recognise the identity of the other and so they used defence mechanisms to protect their self-identity (Turner, 1987). Moreover, because Anu and Minerva did not have the opportunity to develop any relational characteristics, such as trust and familiarity, it can be seen that the conflict at this stage was affective, rather than cognitive (Ensley et al. 2002). This supports Ensley et al's (2002) argument that the extent to which conflict is cognitive or affective dominated will influence the likelihood of the conflict resulting in a functional or dysfunctional outcome. In this case, the relationship broke down.

Nevertheless, as indicated in episode 2, after a period of time, both parties had evaluated the potential of the relationship in terms of future oriented benefits, that is the likelihood that the collaboration will create value and based upon a positive assessment, the relationship re-commenced. However, it is important to realise here that through initial sense-making both parties had also learnt about each other from their previous interactions (Doz, 1996) and a new sense of how to overcome prior difficulties materialised and so adjustments to initial beliefs or frames were made (Weick, 1995). For instance, Anu's preconceived belief of a formal, low interactive encounter with Minerva had to be altered. Similarly, Minerva realised that in order for the relationship to succeed, more formality in their interactions with Anu was needed. In essence, although the initial interactions were conflictual in nature, it nevertheless, allowed both parties to voice their complaints and give their sense of what was expected (Buchel, 2000). In turn, this facilitated the generation of a new sense of each other's identity and their initial preconceptions were adjusted, based on the sense giving by the other (Turner, 1987). What is particularly evident from Anu and Minerva's interaction here, is the emergent nature of social exchange, the to and fro between sense-making and sense-giving, emphasising the dynamic and iterative nature of the process (Weick, 1995). Both parties committed to the relationship and the increased intensity of interaction thereafter led to convergence. Formally organised meetings (episode 3) allowed both parties to share information about the values and beliefs of their respective organisations, and in so doing, a plausible understanding of each other's identity in relation to the other was beginning to form (Giddens, 1991). This understanding of identity need not be totally accurate but it did need to be plausible in order for cooperation to continue between the two companies (Weick, 1995). Nevertheless, it was this increased understanding that allowed Anu and Minerva to re-establish a negotiated belief structure and convergence on the product idea was then possible. What is noteworthy here is that this group-based understanding did not entail a common understanding of all issues between Anu and Minerva. Indeed, the tacit nature of making and giving sense about the way each other operated, their values and beliefs was a source of destabilisation or conflict throughout the life of the interaction, and is a manifestation of the difficulty and frustration both Anu and Minerva encountered in making sense of the deeply rooted and noncodifiable practices inherent within each organisation, that is their self-identity (Turner, 1987).

It is interesting to note that the complicatedness portrayed here in communicating identity is somewhat understated within most relational and interaction literatures, and is generally assigned the prescription *that as the parties interacted a sense of familiarity emerged*. This is somewhat superficial and betrays the importance of communicating self-identity to the establishment of a social order. Self-identity "is not a distinctive trait, or even a collection of traits, possessed by the individual. It is the self as reflexively understood by the person in terms of her or his biography" (Giddens, 1991: 53). In other words, self-identity is not exclusively found in behaviour or actions or in the reactions of others (although they do contribute to confirmation), but in the "capacity to keep a particular narrative going" (Giddens, 1991: 54). This implies that both Anu and Minerva have a biography, that is who they think they are and where they are going and it is this biography that is communicated to the other. For Anu and Minerva to maintain regular interaction and successfully cooperate, the narrative that each is communicating to the other must hold true and cannot be wholly fictive, otherwise a sense of dishonesty will materialise, resulting in mistrust. This implies that trust in the relationship evolves with the continuity of each

company's biography (Giddens, 1991). Nevertheless, as illustrated above, communicating identity is not a simple endeavour. As demonstrated throughout this case, inaccurate perceptions of each other's identity led to defensive mechanisms and divergence. Amongst the clearest description of the nature of sense-making and sense-giving and its role in understanding the identity of the other, is that of the CEO of Anu. In his own words:

People project what they want you to see, not who they really are. So in the beginning there was a lot of information given to us about them from them and we had to sort through all that and come to the truth. The opposite is also true, we gave them a whole load of information about us and they had to sort through all that and come to the truth about us. As I said already both of us were projecting what we thought was our best face to each other, but after a while you learn to see the true picture. At the end of all that, you know that other person, you know how they operate and most of all you know if you can trust their company to be a dependable business partner. Was this easy? Far from it .

The preceding discussion on conflict emergence and conflict reduction (episode 3 and 4) also has another implication, that is, although the evidence emanating from the case supports the proposition that agreement on issues, such as the product idea (episode 3) is as a result of convergence, there nevertheless was a certain amount of uncertainty and ambiguity on Minerva's part about the actual feasibility of the idea (episode 4). This suggests that although the partners made the commitment to engage in a future course of action, a certain degree of ambiguity was inherent in that decision (Ring and Van de Ven, 1994). This implies that while the perception of conflict was resolved between Anu and Minerva, it was never eliminated (Jehn, 1997; Amason, 1996; Pinkley, 1990). This is consistent with Buchel (2000) who found that although "congruency between the partners is necessary to reach an agreement, a certain degree of ambiguity facilitates the continuation of negotiations" (648). Also noteworthy is that when Anu and Minerva committed to the formalised meetings, it presented a socialising opportunity for the individuals involved and facilitated the sharing of individual beliefs and the development of inter-personal relationships. This tends to suggest that sense-making and sense-giving occurs at two levels, namely the inter-organisational and the individual. Indeed, this case study showed that it was the behavioural interactions of individuals within the cooperative relationship that determined the pattern of the inter-organisational relationship. This is somewhat consistent with Buchel's (2000) finding that it is boundary group and intra-joint venture group relations that ultimately determines patterns of maintenance in joint ventures. Doz (1996) essentially makes the same point in relation to alliances. These authors argue that multiple informal inter-personal relationships influence inter-organisational cooperation. In sense-making terminology, the interconnectness between the two levels allowed both Anu and Minerva to adapt and update their initial frames, as they interacted and in so doing a growing sense of familiarity and relational norms began to emerge, accompanied by a communication pattern that allowed Anu to sense and understand gestures of tension been exhibited by Minerva, and so were able to address underlying issues before they began to fester (episode 5). This action suggests that an understanding of each other's identity was becoming more evident between Anu and Minerva.

At this stage in the evolution of the collaboration (episode 6), both Anu and Minerva endeavoured to create a stable social world, made stable by behaviourally confirming the expectations of the other, achieved through convergence on formal meetings, information sharing, inter-personal relationships etc. (episodes 3,4 & 5) (Turner, 1987). With this as background, it was interesting then to find that while, both Anu and Minerva thought that they were working on the same product concept,

they had in fact, different interpretations of what the product concept was (episode 6). This finding supports a substantial amount of sense-making literature where it is argued that stability based on the congruency of expectation does not necessarily have to entail a full correspondence between intent and interpretation (Ericson, 2001; Weick, 1995). Obviously, Anu and Minerva assigned different meanings about what the product concept was. The difference in meanings can be attributed to differences in the mental framework of each actor (Ericson, 2000). What this means is that it is possible for “groups to perceive that they agree and therefore act, when in fact their interpretations are different”(Buchel, 2000: 652). The consequence of different concept interpretations meant that the information selected for sharing and processing was filtered based on the concept within each actors mental framework and since each conceptualisation differed, appropriate information was not shared (Ericson, 2000). As a consequence, the different interpretations led to expectations not being fulfilled (Starbuck and Miliken, 1988) and the high level of conflict gave rise to the parties evaluating the performance of the relationship in terms of future economic and relational equity based on their expectations and future oriented planning (Buchel, 2000).

However, what is interesting about both Anu and Minerva’s assessment of the relationship was the important role, the inter-personal relationship between MM and AM played in that evaluation. This finding clearly highlights the criticality of inter-personal relationships to conflict resolution (Arino et al. 2002; Ensley et al. 2002; Anderson and Narus, 1990) and thus, to the continuity of inter-organisational relationships (Hutt et al. 2000; Håkansson and Snehota, 1995; Ford, 1980). Further, it confirms, Ring and Van de Ven’s (1994) theoretical argument that the product of social-psychological dynamics or inter-personal socialisation and norm formulation is a greater reliance on informal relationships rather than formal role relationships in times of conflict. Indeed, the personal bond between MM and AM that flowed from congruent sense-making and congruent psychological contracts produced a trust in each other’s goodwill to transcend their organisationally specified roles in adapting to and mediating the inter-organisational divergence created as a result of the lack of shared meaning on the product concept (Ring and Van de Ven, 1994). For instance, the onsite visits (episode 7) organised by the two individuals to improve the efficiency of the cooperation, clearly demonstrated that through sense-making and sense-giving they had developed a strong psychological contract regarding the need for cooperation between their respective organisations (Ring and Van de Ven, 1994). Indeed, the on-site visits reconfirmed their individual expectations about each other’s goodwill and commitment to the project (Weick, 1995; Turner, 1987). As informal psychological contracts are upheld, their trustworthiness in each other is further affirmed as is their belief in each other to resolve the divergence at an inter-organisational level (Ring and Van de Ven, 1994). Based on extant literature, it is probably reasonable to consider that the conflict between Anu and Minerva over the concept did not trigger affective conflict at an individual level between MM and AM because their close relationship served as a strong centripetal force in directing them towards experiencing more cognitive conflict and thus the organising of the on-site visits (Ensley et al. 2002). The on-site visits also facilitated the establishment of a social order at the individual level between MM and AM. However, it is important to realise here that this social order did not just instantaneously materialise as a result of MM and AM interacting while on the site visits. Establishing a social order was a cumulative product of numerous interactions (Homans, 1979). The on-site visits facilitated greater exploration and development of intimacy with each other, not just in relation

to their qua persona relationship but also in terms of their role relationship. The visits facilitated more informal interactions whereby they learnt through experience those noncodifiable nuances that make up self-identity. In essence, the interactions allowed MM and AM to disclose both verbal and non-verbal information about one's self, personal circumstances, temperament, past occurrences and plans for the future (Altman and Taylor, 1973) and in so doing created a shared history, a sense of intimacy and closeness (Giddens, 1991).

In episode 8, when divergence emerged as a result of Minerva's perceived sluggishness by Anu to progress the project, the findings clearly illustrate that role relationships and inter-personal relationships are not identical and divergence occurred as a result of lack of congruency on role relationship. Ring and Van de Ven explain: "just because a person is willing to attribute sincerity or trustworthiness to qua persona behaviour does not mean that a person will do so if the individual were behaving in a role context. Consequently...even though individuals may rely on trust in their qua persona relationships, they may be unable to do so when acting as agents for their organisation" (1994: 95). Mirroring Ring and Van de Ven's description, the case shows that the inter-personal relationship and the role relationship between MM and AM caused an awkward entanglement, leading to frustration and threat of termination (Ring and Van de Ven, 1994). On examining the interaction episode, it is noticeable that at the start of this divergence, the inter-personal relationship was relied upon to clarify the situation (AM contacted MM). However, MM was acting within his organisational role context and so the trustworthiness in their qua persona context could not be relied upon. *Although MM and myself are friends and I trust him nevertheless he still works for Minerva, that's where his loyalties are at the end of the day (Anu: AM)*. Implicit within AM's quote is an understanding that he was aware of this entanglement and that MM was acting within his organisational role as opposed to quo persona, yet he was nevertheless frustrated at this scenario. The entanglement observed in the case study clearly illustrates that although the same individuals were involved in both the inter-personal relationships and the role relationship, there is a boundary there constrained by organisational actions, which in turn caused conflict between MM and AM, specifically threatening the continuity of the relationship. However, while the threat has to be taken as legitimate and as a potential terminator of the relationship, it could also be seen in context in which it was made (Park et al. 1986). The threat by AM was made at an individual level and not an organisational level, suggesting frustration with MM's division between qua persona and role relationship. It also indicates that the threat was made more out of affective reasoning based on frustration rather than cognitive. Nevertheless, it was MM and AM's enhanced ability to rely on their personal bond and psychological contract that resolved the conflict. This is consistent with Ring and Van de Ven (1994) who proposed that the ability to rely on trust has important implications for the balance between the formal and informal. What is important to note here, is that the entanglement between qua persona and role relationships was in essence part of the sense-making and sense-giving process occurring at an individual level between MM and AM. Indeed, a congruent understanding emerged, that constraints on their inter-personal relationship may be imposed by each other's organisational roles (Ring and Van de Ven, 1994). This in itself implies that reliance solely on inter-personal trust and psychological contracts to resolve divergence can be dangerous (Arino et al. 2002), although in this instance it was sufficient.

Commenting on the notion of establishing a shared understanding within a relationship, Berger (1987) states that "to interact in a relatively smooth, coordinated

and understandable manner, one must be able to predict how one's interaction partner is likely to behave, and based on these predictions, to select from one's own repertoire those responses that will optimise outcomes in the encounter" (41). From the case study, an example of this group-based understanding of accepted and expected behaviour as described by Berger is evident in interaction episode 9. Anu implicitly understood, what was needed in order to make the concept more acceptable to Minerva. Through their interactions, a sense of the other's identity at an organisational level emerged (Ring and Van de Ven, 1994). *From talking to MM and other reps on site, we knew what they wanted (Anu: AM)*. Yet, this understanding did not just materialise. The alternating processes of sense-making and sense-giving both at an organisational and individual level cumulated over time, which fed into a shared subjective picture of expected and accepted behaviour (Doz, 1996). Indeed, it was frequent interaction between Anu and Minerva, which involved interests being expressed, divergence being resolved, bonds being formed, and enabled the establishment of negotiated belief structure and action to occur (Weick, 1995; Turner, 1987). The parties moved from that initial state of divergence, as depicted in Table 1 and 2 to an evolved state of understanding how to communicate and cooperate together (Weick, 1995).

However, as discussed previously, the shared understanding between Anu and Minerva did not entail a consensus on all issues (Turner, 1987). Indeed, both had different interpretations and concerns over information security and functionality of the concept. However, convergence provides the basis for organised action and hidden imbalances within their social order are bound (Weick, 1995). Points of convergence, reduces conflict and provides the basis for continued interaction, but it does not eliminate conflict (Buchel, 2000). What is particularly noteworthy from the case is that because the parties knew each other, they saw disagreements as a means of cognitive communication rather than an affective attack (Ensley et al. 2002). In essence, the utility of their negotiated social order lies in its capacity to see conflict as a functional and productive consequence of cooperation. In fact, both companies accept that conflict is going to occur and is seen "*as part of doing business together*" (Anu: AM).

A SENSE-MAKING FRAMEWORK FOR STRUCTURING INTERACTION DYNAMICS IN A CLOSE COLLABORATIVE RELATIONSHIP

With the above material as background, a tentative *priori* conceptualisation for understanding interaction dynamics from a sense-making perspective is presented in Figure 1 (see appendix). The pattern that emerged from the case analysis can be best described in terms of overlapping processes of sense-making and sense-giving, within which shorter temporal phases of sensing occurs, explicitly expectancy, conflictual, relational and relationship quality. Although the term, phase, may connote hierarchical progression from one stage to another, it is important to realise that this is not so. Indeed, the temporal occurrence of the sensing phases may be almost simultaneous. They overlap through recurrent sequences of sense-making and sense-giving. Thus in contrast to traditional linear models, the framework presented here is cyclical and not sequential (Ring and Van de Ven, 1994).

Our model starts with expectancy sensing. Since both parties in the relationship have had no prior interactions, their initial expectations on entering the collaborative arrangement - about the project, the partner, or performance outcome, are based on their own subjective belief structures or frames (Weick, 1995). These expectations influence the interpretation of events because in order to define and enact behaviour,

actors will relate their experience back to existing knowledge held in their frames and generate an expectation of what they believe should happen (Rousseau, 2001; Miliken and Lant, 1991). As they interact, they will attempt to enact their initial expectations about the way that they foresee the interaction should unfold and so their expectations becomes a resource to negotiate with others (Ashmos and Nathan, 2002). However, because these beliefs are subjective, they are likely to be inaccurate but for each actor, they are plausible (Isenberg, 1986).

This is where conflictual sensing comes to the forefront. Because beliefs are likely to vary, divergence or conflict within the relationship is inevitable (Buchel, 2000). Indeed, during interaction the actors need to confirm the substance of a set of core attitudes and beliefs that comprise their own sense of identity in relation to the other (Giddens, 1991) and because the actors are not acquainted and are enacting their own initial expectations, identity of self in relation to the other becomes an issue of contention and conflict ensues (Ring and Van de Ven, 1994; Turner, 1987). Indeed, events that conform to expectancy make sense, those that do not conform cause divergence (Weick, 1995). Since, all conflicts are in fact, affect-laden situations (Volkema et al. 1996), conflictual sensing is a response to situations involving affective feelings of cognitive dissonance (Gioia and Chittipeddi, 1991) because it helps interactants to reaffirm a sense of their social solidarity and group membership (Weick, 1995) thus reducing the anxiety associated with cognitive dissonance (Roger et al. 1996; Turner, 1987). Because conflict relies on debating and communicating individual perspectives about the way the world works, the actors will learn about each other (Weick, 1995). Moreover, they will have to take account of the identity of the other in relation to their expectations (Giddens, 1991) and based on the information acquired, the actors will adjust and adapt their initial expectations as they interact (Ring and Van de Ven, 1994). This is illustrated in Figure 1 by the spiral depiction of each interactant's frame, indicating that while initial expectations are formed based on past experiences (frames), the alternating process of sense-making and sense-giving that occurs during interaction results in the revision of interpretations by individuals (based on the sense giving by others). Frames are updated and a new sense is generated. Indeed, they reach a point of convergence where a re-negotiated belief structure emerges and where the perception of conflict is resolved.

However, stability is never fully achieved (Daft and Weick, 1984) as conflict is never fully eliminated (Ensley et al. 2002) and so interactions will continuously go through alternating cycles of divergence and convergence (conflictual sensing) in which individuals voice their interests (sense-giving)., expectations are revised based on new data (frames are updated) and a new sense of what is expected and accepted behaviour materialises. Now, the extent to which conflictual sensing results in a functional benefit depends upon whether the conflict is in fact affective or task dominated (Ensley et al. 2000; Ashforth and Humphrey, 1995; Park et al. 1986). In an emergent relationship, the likelihood of conflict being affective dominated is high because the interactants would not have had sufficient time to develop relational norms. In the presence of conflict, relational characteristics such as trust and commitment raise the threshold for triggering affective conflict and direct interactants towards experiencing cognitive conflict (Ensley et al. 2002). Interpersonal relationships can also act as mediator and actually reduce conflict. Moreover, it also facilitates the development of psychological contracts (Ring and Van de Ven, 1994). As a consequence of personal bonds and congruent psychological contracts, relational normative standards will develop that approves or prohibits certain practices and

activities (Ring and Van de Ven, 1989). It is also important to realise here that because this relationship is an emergent one, a full understanding of the constraints imposed by a person's organisational role on the relationship may not have materialised and so an entanglement of qua persona and role relationships is likely. This is illustrated in Figure 1 (see appendix), with circles *I*, *II* and *III*. It is through sense-making and sense-giving that the understanding emerges on the distinction between qua persona and role relationships. Indeed, understanding is a cumulative product of numerous interactions (Ring and Van de Ven, 1994). Hence, the importance of relational sensing. Since there are no prior affiliations and the actors are in essence strangers, characteristics of a relational nature would emerge incrementally. As both parties interact they will develop a subjective picture of each other's identity. As this research has demonstrated, this is not an easy task. What is critical in the development of these relational norms is the demonstration of commitment (Weick, 1995) because it serves to intensify a shared understanding that the relationship is important and that there is a long-term orientation (Gansen, 1994).

During interactions, the actors themselves will be constantly evaluating their expectations in lieu of their counterpart's actions, making sense of them, and based on the cognitive evaluation of those actions, adjust their own sense and actions accordingly (Lui and Lu, 2002; Ring and Van de Ven, 1994). Indeed, the interaction between the actors is continuously being "shaped and restructured by the actions and symbolic interpretations of the parties involved" (Ring and Van de Ven, 1994:96). Noteworthy here is that adjustments to expectations are tentative and experimental (Doz, 1996). Yet, commitment is designed to elicit and test trust, expecting the other to reciprocate (relational sensing). Adjustments are reflected upon, ensuing new rounds of sense-making and sense-giving in relation to progress and outcome evaluation of the relationship (relationship quality sensing). If the outcome of the evaluations is that the relationship continues, conflictual sensing will occur because parties may need to re-negotiate what is expected and accepted behaviour. The divergent and convergent cycle continues with overlapping processes of sensing until eventually, a negotiated social order emerges.

CONCLUSION

Understanding what are the interaction dynamics inherent in the evolution of close collaborative relationship and how these processes interact to create that shared sense of social order was the central quest of this case study. Through a sense-making lens, a refined framework was presented explaining the socio-psychological dynamics underlying the process of interaction. This contribution advances the existing literature on interaction dynamics by illustrating that it is a 'evolutionary', 'messy' and 'difficult' process, in which a multitude of dynamic processes have to come in to play to create a social order that facilitates cooperative behaviour. Indeed, the complexity intrinsic in collaborative relationships is clearly evident in the observed cycle of alternating divergence and convergence that the actors went through in the establishment of a shared understanding of accepted and expected behaviour. Even when an established social order was present, they still had to go through conflict emergence and conflict reduction, indicating that stability in a relationship may never be fully achieved. Moreover, the complexity and evolutionary nature of the dynamic process inherent within the case study also emphasises that traditional structural approaches to the study of interaction dynamics may not be inadequate because they assumes invariance between all interacting parties in following a prescribed order of interaction phases, one locked after the other.

Our paper also has some practical implications. Indeed, the detailed case description provides practitioners with substantial insights into the dynamic processes that would enable them to successfully interact and collaborate with partnering firms. For instance:

Expectations must be managed. Expectations are powerful realities and so executives need to be mindful of expectations and to craft them carefully. As there is a tendency to look for confirming behaviour and self-fulfilling prophecies, executives need to access what they expect and look for disconfirming data. In this fashion, a more truthful reality of what to expect will emerge in the collaborative relationship.

Appreciation of the other's identity. When there is no prior interaction experience, initial negotiations should centre sense-making and sense-giving processes on getting to know each other's identity. Indeed, not taking time in the beginning to appreciate how the other party operates will cause significant delays later on in the process. This implies that the intensity of interactions should be high with frequent and bi-directional flow of information to allow the establishment of a congruent understanding of each other's identity in relation to others through the processes of sense-making and sense-giving.

Conflict is part of doing business. At a strategic level, companies should see conflictual episodes as just part of doing business. Indeed, this research suggests that cognitive dominated conflict should be encouraged, while affective dominated conflict is restrained and so partners can gain the benefits of conflict without the costs. At a tactical level, this has the implication that since conflict is going to occur, companies should integrate conflict management into their training courses, and so, equip their boundary spanners with the necessary skills to handle conflictual episodes.

Interpersonal relationships are paramount. At a strategic level, the importance of developing inter-personal relationships amongst boundary-spanners to the continuity of the inter-organisational relationship is critical. Indeed, tactical, boundary-spanning employees must be actively encouraged to develop multiple personal relationships with their counterparts and feed information back into the organisation. In times of conflict, these interpersonal relationships can act as a safety net.

Developing a mindset for sense-making and sense-giving. "Practice in sense-making needs to begin with a mindset to look for sense-making" (Weick, 1995: 191). Organisations and boundary spanners can greatly benefit from applying the sense-making and sense-giving framework developed in this research to their collaborative interactions. However, managers may need to undertake a training module that emphasises (i) how to reflect on their own actions and make sense of them, (ii) to understand the impact of the sense-giving by others, and (iii) to reflect and observe the outcome from the sense-making processes. Such a module should involve an assessment of each individual's sense-making and sense-giving processes, advice and direction for future reflection. Executives who understand the underlying social-psychological processes that are at play in collaborative interactions may be able to make more informed choices, than managers who are unaware of the influence that these sub-processes can have on the collaboration. Furthermore, an understanding of how interaction unfolds can help managers handle more effectively the behaviour of other interactants. In essence, the implication of the framework developed is that it allows managers and practitioners alike to be aware of the implications of the sense-making and sense-giving processes, while at the same time, they can use the process model, to make sense of the interaction that they might find themselves embedded in.

As is usual with single case research, this study has several limitations, most notably the question of whether these findings apply beyond this research project.

Further research could be utilised to refine, modify or confirm findings by replicating the study in a larger case population. Moreover, a quantitative approach to these case findings could also be performed. Future quantitative research could address the impact of different variables identified in this work, on the development of a social order in emergent and close relationships. By studying larger populations, reassurance is given that the findings developed in one case are not wholly idiosyncratic. Finally, by ignoring the network context, the present study's findings are limited to interaction dynamics in the dyad.

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APPENDIX

Table 1. Interaction Episodes

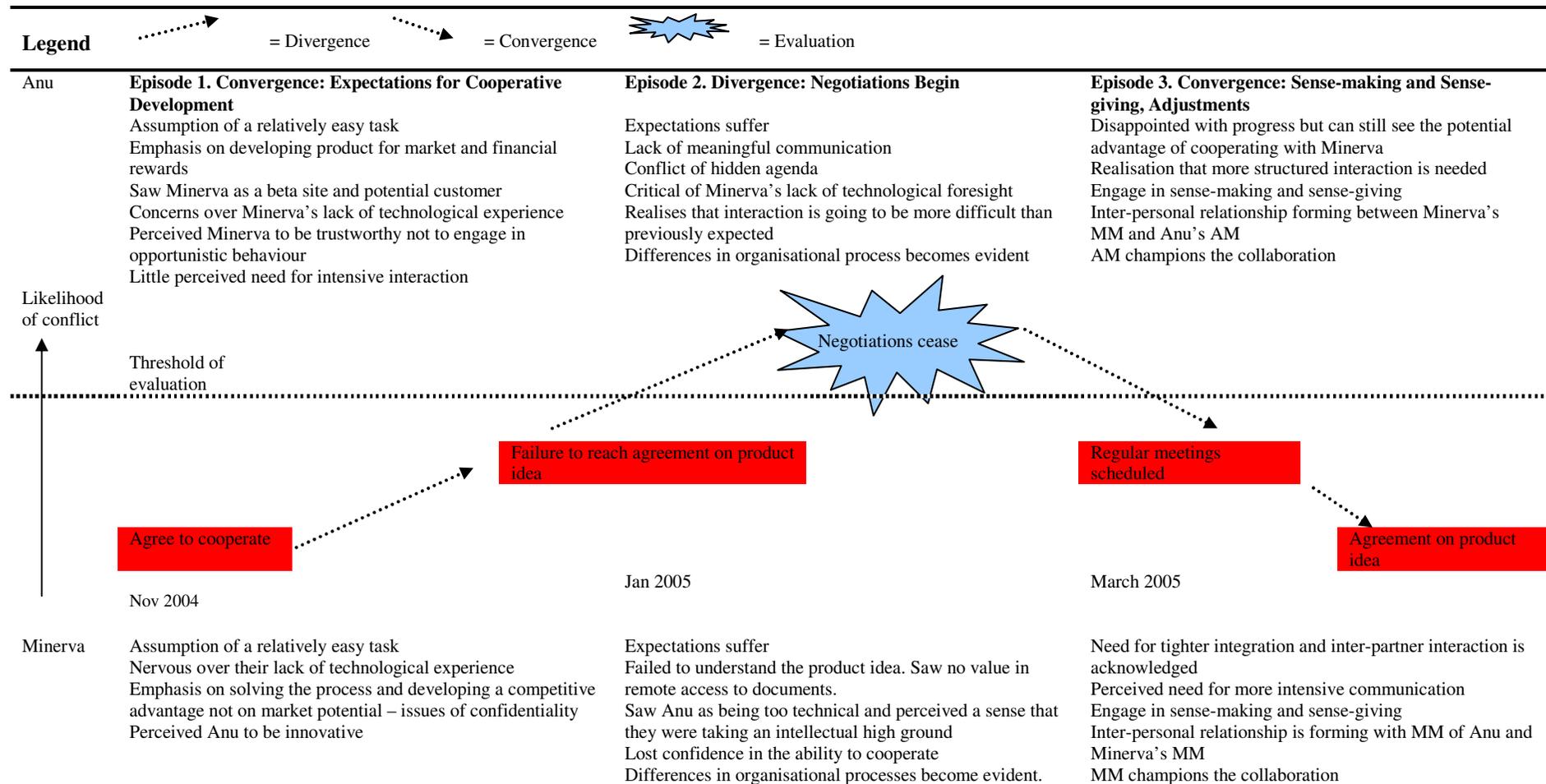


Table 1. Interaction Episodes (Cont.)

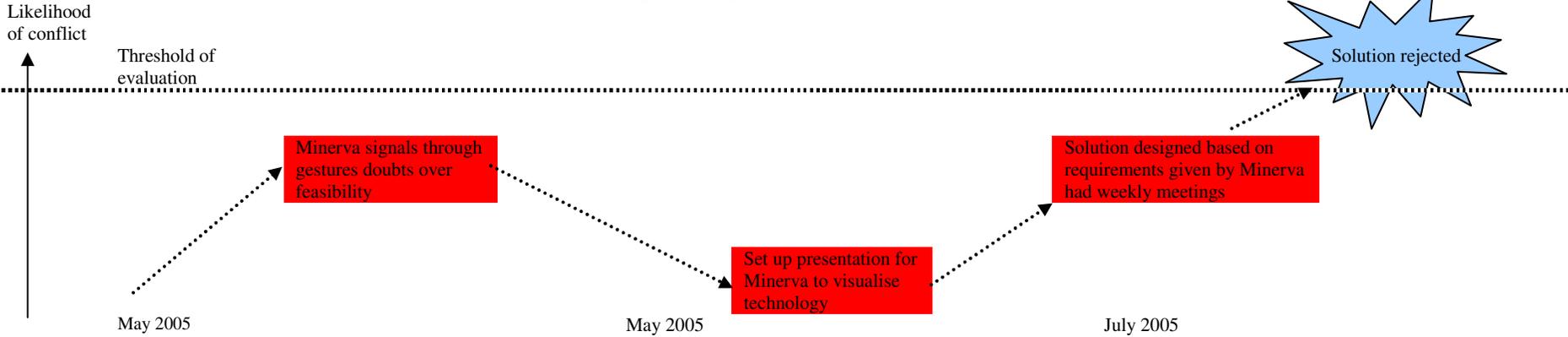
Legend	 = Divergence	 = Convergence	 = Evaluation	
Anu	Episode 4. Divergence: Concern over Project Feasibility		Episode 5. Convergence: Understanding Enables	Episode 6. Divergence: Perceptual Filtering, Expectations Suffer and Evaluation
	Action			
Fully committed to project idea Strong interest to make collaboration work	Interaction is extensive Communication pattern emerges Concerns over Minerva's commitment to the project materialise Minerva needed to be convinced that the technology was there Significant adjustment		Disappointed with progress and rejection of solution Blamed Minerva for filtering out information that was critical to the project Lesser expectation of a fast task Evaluate future of the relationship	
Likelihood of conflict				
	May 2005	May 2005	July 2005	
Minerva	Have doubts about whether the project was technologically possible or feasible Mistrust stems from prior systems development failure Realises how little they know about computer systems Becomes worried about their ability to be involved in a systems development project Commitment questionable		Communication pattern emerges Begin to appreciate and understand the potential of product concept Concerns decrease Commitment increases	Concern over project feasibility resurfaces. Realises Anu does not understand process. Evaluate future of the relationship The partnership can still create value, new means of sharing information needed

Table 1. Interaction Episodes (Cont.)

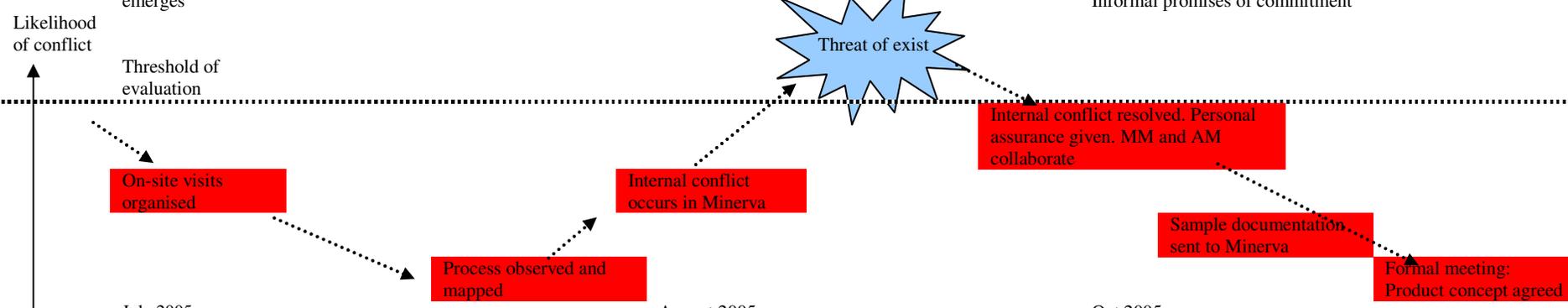
		 = Divergence	 = Convergence	 = Evaluation	
Legend					
Anu	<p>Episode 7. Convergence: Personal Commitments, Deepening of Psychological Contracts, Adjustments and Individual Shared Understanding</p> <p>Personal relationship between Minerva’s MM and Anu’s AM On site visits facilitate understanding of process Socialising opportunity- critical insight into interaction behaviour of Minerva employees Connections established with Minerva employee’s Perceived Minerva MM commitment to be high Psychological contract for cooperation deepens Individual and shared understanding between AM and MM emerges</p>			<p>Episode 8. Divergence: Entanglement of Qu Persona Relationship and Role Relationship</p> <p>Frustrated with Minerva’s sluggishness. Feeling that project is losing momentum Perceived little exchange and a lack of commitment on Minerva’s part Concerns about the future of the relationship materialise and consideration is given to exiting Does not see stable relationship as possible</p>	<p>Episode 9. Convergence: Inter-Organisational Shared Understanding</p> <p>Shared Understanding of expected and accepted behaviour materialises Similar or compatible frames of reference between companies Quality of communication increases. Limited ambiguity Resolution of conflict is seen as part of doing business. Compatibility exists Expected continuity of the inter-organisational relationship and individual Informal promises of commitment</p>
	<p>Likelihood of conflict</p> <p>Threshold of evaluation</p> 				
Minerva	<p>Deepening of inter-personal relationship between Anu’s AM and Minerva’s MM. Individual trust. Steps outside organisational role. Informally organises on-site visits. Socialising opportunity – insight into interaction behaviour of Anu Perspectives of each others contribution emerges Psychological contract for cooperation deepens Individual and shared understanding between MM and AM emerges</p>			<p>Anu has full understanding of process Shared Understanding of expected and accepted behaviour materialises Quality of communication increases. Limited ambiguity over system Resolution of conflict is seen as part of doing business. Compatibility exists Informal promises of commitment are made by MM</p>	

Table 2. Interaction Evolution

Initial State	Evolved State
<i>Expectations</i>	
Unrealistic and ambitious expectations set Inaccurate identity of self in relation to other Hidden agendas. Short term goals	Realistic expectations Clear image of each others identity High continuity of relationship
<i>Organisational Frames</i>	
Conflicting frames of reference between partners Significant differences in organisational processes and culture Strongly embedded practices, defensive actions	Compatibility of frames Acknowledgement and understanding of each other's processes and culture: a common ground. Mutual flexibility for more effective practice: Common conflict resolution
<i>The Interaction</i>	
Little intensive interaction: Arms-length, narrow and unstructured Communication poor. Little information sharing: High information filtering and high ambiguity. Differences in interpretations: defensive actions Little trust Little concern for partner Commitment imbalance	High intensity of interaction: Deep psychological contract High communication. Little ambiguity and information filtering. High inter-organisational and personal trust Concern for partner Shared project and partner commitment Mutual understanding. Congruency of expected and accepted behaviour. Social order established
<i>The Project</i>	
High ambiguity Deeply differentiated skill base	Little product ambiguity Acknowledgement of skill and knowledge base: Complimentary understanding of contributions. Internal product champion within each partner organisation

Figure 1. A Sense-Making Framework for Structuring Interaction Dynamics

