

“When everyone is connected to everyone”: exploring role dynamics in triads

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Abstract

In this paper we take as our starting point a relatively neglected phenomenon in IMP research: the triad as the smallest unit of analysis for studying network dynamics. The seminal works of Laage-Hellman (1989), Blankenburg (1992) and Havila (1996) proposed various types of triads. We explore further the dynamic of continuity and change in networks (Johanson and Mattsson, 1985; Gadde and Håkansson, 1992; Axelsson and Easton, 1992) by considering triadic dynamics through the lens of roles and positions in play. The paper outlines three triadic scenarios; the diamond, aligned unitary and timer respectively. The scenarios suggest how the roles played within the frame of a triad changes by the activity task, the counterparts and time. We then use empirical examples from the maritime and the offshore oil and gas sectors to propose a matrix of continuity and change in role performance in triads. It is based on whether a relationship is in a state of continuity and change, and whether a counterpart to that relationship appears in a single or multiple roles in a changing or continuity state. We suggest that in a business world in which “everyone is connected to everyone else”, role dynamics in triads are an under investigated theme, and call for more systematic research which classifies this emergent phenomenon.

Key words: triads, dynamics, roles, positions, interaction

1.0 Introduction

In this paper we contend that triads are essential to studying dynamics in business networks. They are per definition the smallest structure possible for the analysis of networks from an IMP perspective. This is due to the two ontological principles of (i) interaction within (ii) inter-dependent or connected relationships. Triads are thus the key linkage between dyads and networks or the key analytical building block underpinning the analysis of how multiple relationships affect each other when related to resources, activities and actors. At the same time, there are few contributions which have centred upon this important concept for understanding both the underlying logic of networks and how dynamics in networks can be considered.

Within IMP the empirical investigation of relationship and network dynamics is a long standing theme (e.g. Gadde and Mattsson, 1987; Halinen and Tornroos, 1995; Halinen et al 1999; Håkansson and Snehota, 2000; Medlin, 2004; Ford and Redwood 2005; Freytag and Ritter, 2005; Ford and Håkansson, 2006; Johnston et al 2006; Schurr, 2007; Halinen et al 2012). Research on network dynamics has largely focused on the actor layer when investigating the role of relationships in mediating the size and extent of change (Easton and Lundgren, 1992); transformation processes (Smith and Laage-Hellman, 1992), perceptions of network change (Abrahamsen, 2009); the relationship between role and position (Anderson et al 1998); learning processes and network evolution (Lundgren, 1995); and changes in nets resulting from mobilizing actors (Lundgren, 1992; Hertz, 1996; Harrison, 1999; Mouzas and Naude, 2007).

The purpose of this paper is to explore dynamics in triads. More specifically we study triads through the lens of roles and positions in addressing the question of '*how do triads' roles dynamics play out*'. The paper proceeds as follows. Section two below outlines the current literature relating to triads and dynamics. We continue the discussion by outlining three scenarios, those of diamond, aligned unitary and timer respectively. The scenarios illustrate how the roles played within the frame of a triad changes by the activity task, the counterparts and time. Next, we discuss short empirical examples from the maritime and the offshore oil and gas sectors in order to propose a matrix of continuity and change in role performance in triads. It is based on whether a relationship is in a state of continuity and change, and whether a counterpart to that relationship appears in a single or multiple roles in a changing or continuity state. In sum, when "everyone is connected to everyone else", role dynamics in triads are away in which to consider the assumption of inter-dependency, which is an ongoing challenge for practising managers.

2.0 Understanding triadic dynamics

One of the features unique to IMP is the triad as the smallest unit of analysis in a business network. The concept of triads is therefore essential in order to be able to study connections between relationships. They allow researchers to progress beyond the ego network on the one hand (when the focal actor manages its network as the ‘hub’ firm) and to investigate interaction processes which are difficult to capture in global network type analyses (typically using social network analysis software) on the other. In other words, “...triads...capture the basic essence of a network and allow us to study the behaviour of a network” (Choi and Wu, 2009, p. 263).

In his seminal work, Laage-Hellman (1989) introduced triads as a first step to network analysis of technological development. He differentiated amongst six different types of triads, with different actors as the distinguishing feature (e.g. two suppliers and a common customer, or one supplier, its customer and its customer’s customers). Blankenburg (1992) and Havila (1996) both discussed types of triadic structures, i.e. implicit, open, semi-closed and closed (Blankenburg, 1992) and serial and unitary (Havila, 1996).

Following these seminal studies, only 14 articles in the IMP database, containing approximately 2100 articles, have the word ‘triad’ in the abstract. Furthermore, *Industrial Marketing Management*, which is a key outlet for business network research, has published only 32 articles which more or less have focused on triads from 1974 until today! It is striking that so few contributions have focused on the central concept for understanding the underlying logic of business networks. In this paper we argue that what is relatively understudied are *dynamics in triads*. Different network problems are likely to require solutions in which multiple roles playing takes place simultaneously within the triad. How have network dynamics been investigated in current research and how can this inform the study of triadic dynamics?

In essence the empirical investigation of relationship and network dynamics underpins IMP research. It developed from an understanding of interaction episodes (Håkansson, 1982) and includes relationship life cycle models (Ford, 1980), and network dynamics (Gadde and Mattsson, 1987). The underlying logic is that network dynamics are underpinned by relationship dynamics because changes take place within the context of existing relationships (Johanson and Mattson, 1985; Gadde and Mattson, 1987; Halinen et al., 1999). Much of the work on relationship dynamics is actor-based, e.g. processes of dissolution (Tähtinen and Halinen, 2002) and recovery (Tahtinen et al 2007), individual action in relationship

development processes (Mainela and Tähtinen, 2007), and characterizations of types and levels of interaction episodes (Holmlund, 2004; Schurr, 2007; Schurr et al 2008).

Studies of network dynamics have also largely focused on the actor layer when investigating the role of relationships in mediating the size and extent of change (Easton and Lundgren, 1992), transformation processes (Smith and Laage-Hellman, 1992), perceptions of network change (Abrahamsen, 2009), the relationship between role and position (Anderson et al 1998), learning processes and network evolution (Lundgren, 1995) and changes in nets resulting from mobilizing actors (Lundgren, 1992; Hertz, 1996; Harrison, 1999; Mouzas and Naude, 2007). Other research attempts to capture dynamics through specifically investigating alterations in resource and activity interfaces over time (Dubois, 1998; Håkansson and Waluszewski, 2002).

The current literature about network dynamics would suggest that triadic dynamics can thus be studied in a variety of ways, and the most typical research design would involve a comparison of some structural feature between two time periods. That is, the change in some entity or structure from one state to another state. However, as Tsoukas and Chia (2002:568) explicate, ongoing change rather than stability should be considered as the norm: which are the processes that are “in flux” is the key issue. In other words, what is the flow of business interaction that takes place, how is it shaped, what activities underpin it in a triadic context? This necessitates a focus on how the ongoing stability of a relationship and network is performed; or relating work and not relationships (cf. Czarniawska, 2004). We therefore argue that ongoing dynamics (rather than changes in state) are central in understanding triadic dynamics.

2.1 Studying triadic dynamics through roles

We take as our starting point literature concerned with actor roles and the corresponding network position (e.g. Gadde and Mattsson, 1987; Mattsson, 1989; Snehota, 1990; Anderson et al 1998), and recent research emphasizing both the roles of individuals in relationships (e.g. Holmlund, 2004; Medlin, 2004; Mainela and Tähtinen, 2007; Håkansson et al, 2009) and roles for managing in nets and how different roles can be played (e.g. Möller and Svahn, 2003; Möller et al, 2005; Heikken et al 2007; Story et al 2011).

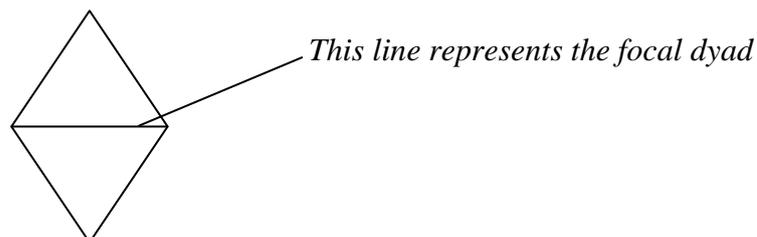
Essentially network position can be equated to the role of an actor within a network, based on relationships and resources (Mattsson, 1989). As Johanson and Mattson (1992:213) argue, "the position of an actor changes all the time, not only because new exchange relationships are developed, old ones interrupted and others change in character, but also

because the counterparts' positions are changing and, furthermore, the positions of third parties, with whom the focal actor has no direct relationships, are also changing". Crucially an actor's network position must be identified as such by others: "...[it] exists only if perceived and recognised by the parties in the context" (Håkansson and Snehota, 1989:196). Furthermore, networks, and an actor's position within these, are multiple: "...if an organisation is a member of different networks, it does not follow that it will hold the same position in all of them. Even within the same network, an organisation can hold more than...[one]...position simultaneously" (Easton and Araujo, 1989:117).

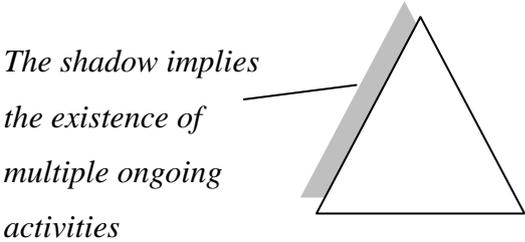
Recent research in the network management literature focuses on the roles for firms when managing in nets and how different roles should be played in different net configurations. For example, Moller and Svahn (2003) discuss how hub firms can have multiple roles in different and related (often overlapping) nets. Furthermore, strategic nets are considered to be interrelated as actors hold multiple roles in different related nets (Möller et al, 2005). This requires managers to be able to classify the types of strategic nets they are involved in and be aware of the managerial challenges that follow from this. In terms of processes, Story et al (2011) argue that inter-organisational actors play different roles at different parts of the radical innovation process, in a similar vein to the work of Heikken et al (2007).

A number of issues remain underexplored. These are in terms of the awareness by a focal company of the multiple roles being played by counterparts and which role is being played from a role repertoire, how new roles are developed over time, and continuity-change in the existing roles played. In order to explore these issues further, the next section below discusses three scenarios of role dynamics in triads.

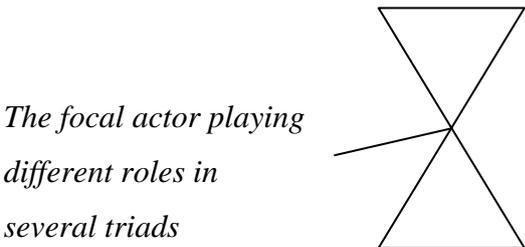
First, we adopt the seminal work of Laage-Hellman (1989) in investigating the variety of roles played when multiple triads are in place due to the existence of one dyad and variations in the third party actor which has relationships with the core dyad. It can be illustrated as a 'diamond':



The second scenario is concerned with how one unitary triad performs multiple interaction processes simultaneously. In other words, there are a variety of roles in play as multiple types of networking activity are conducted, from the operational to the strategic. None of the company actors or relationships changes in terms of the structure of the triad. Of course, the individual people involved in the different activities may well do so. What is being explained here is that the multiple, ongoing playing of roles in the performance of interaction within a single triad is a function of activity 1, activity 2, through to activity n. The smoothness of the problem solving or co-ordination is likely to vary by the degree of alignment of the actors involved. Different interaction processes are therefore possible at any one point in time. The number of activities handled and the variety implied in these would suggest variation in what can be termed triadic flexibility.



Thirdly, multiple triadic project configurations are considered as a topical example of how actors play multiple roles from multiple positions (competitor, supplier, customer etc). This is the ‘timer’ model of triads. The roles played also vary by the activity involved and the degree of alignment in the triad. Flexibility here is in terms of the numbers of roles played /numbers of network positions enacted by the focal actor. It is the focal actor which changes role in this scenario. But the multiple existence /playing of more roles is not inherently good. That is, playing too many multiple network positions might mean that a company cannot embed the interaction content required to perform well in each separate role.



3.0 Three scenarios in triadic dynamics

Here we will outline and discuss the three scenarios introduced above.

3.1 One dyad, variation in the third party (diamond)

In our first scenario we have actors A and B in a relationship together, and what varies is how the relationship is organised vis a vis a variety of third party actors. One of the first to study this was Laage-Hellman (1989) who discussed connected relationships and triadic situations in technological development. He claimed that *“The addition of a third actor represents a leap-wise increase in complexity which makes it possible ... to analyze connections and other network phenomena which cannot be handled in the received interaction model (Laage-Hellman, 1989, p. 31).* In his thesis he identified six different triad situations, for example between two suppliers and one customer, or a situation with one supplier and two customers, or one industrial firm and two R&D units. Based on these different triadic situations, and thereby different third parties, he identified positive and negative effects in relation to activities and actors.

In a similar vein, Havila (1996) studied business-relationship triads, but she focused on the changing role of the intermediating actor in these triads. She discerned between two types of triads, serial and unitary. In a serial triad there are two strong relationships and a weak (or non-existing) relationship, whereas in the unitary triad there are three strong relationships. Havila (1996) used these two types in order to analyse and discuss the role of the intermediating actor. She developed a matrix where she distinguished between ‘no change/replacement of the intermediating actor’ and ‘stability/change in the core role of the intermediating actor’. Her conclusion was that the core role tends to be stable even though the context changed.

Furthermore, Holma (2009) has studied ‘triadic relationship setting’ as the core phenomenon in her thesis. She claims that triads can be characterized by four different aspects (based on Simmel). These are 1) ‘reciprocity’, i.e. different types of relationships can be formed inside the triad, 2) ‘different roles of the third actor’, i.e. can keep triad together or create disagreements, 3) ‘relationships unstableness’, i.e. the triad is less stable than a dyad since three parties need to agree, 4) ‘coalition forming’, i.e. the tendency among the triads’ actors to make coalitions.

Already in 1989, Laage-Hellman argued that *“...triad analysis should not be restricted by definition to the relationships between the three focal actors...[in the triad]...how many actors and relationships should be considered when analysing a certain triad situation is an*

empirical question” (Laage-Hellman, 1989, p. 32). This is further developed by Holmen and Pedersen (2000) by introducing the concept of ‘serial tetrads’, i.e. units with four actors and three relationships. They claim that “*a tetrad can be said to be the smallest unit of analysis in which it is possible to study two overlapping triads in which the third parties of the focal relationship differ*” (Ibid., p. 14).

This is important to study and understand because the interaction in the focal relationship and the role played by actor A and actor B (in the focal relationship) may differ depending on the third party being actor C or actor D. Dubois et al. (2011) have come to a similar conclusion when they introduce a ‘fourth party’ in relation to the triad claiming that “inclusion of such ‘fourth parties’ to the triad is essential in order to address antecedents of changes and of their effects” (Dubois et al., 2011, p. 13).

3.2 A single triad performing multiple activities simultaneously (aligned unitary)

The question being addressed within this scenario is how does one unitary triad perform multiple roles at any one point in time? It is assumed that a triad is able to handle multiple interaction processes and the actors play a variety of roles in order to be able to do so. What is being explained here is that the ongoing playing of roles in the performance of interaction within a single triad is a function of activity 1, activity 2, through to activity n. For the sake of simplicity, we hold the time period constant (although an awareness of the past, present and future is implied in the activities described below).

At least some of the individuals involved in the different activities underpinning different roles are likely to vary. An individual (manager or otherwise) would typically be part of multiple processes in multiple episodes in one or both relationships. Social and information exchange takes place, underpinned by existing contact patterns. Individual experience in handling the present and the future in a relationship (Mattsson, 1989; Medlin, 2004) in changing resource interfaces, maintaining momentum, seeking to influence/mobilize, altering the nature of activity links, etc has network implications (Håkansson et al, 2009). The smoothness of the problem solving or co-ordination is therefore likely to vary by the experiences of the individuals involved, along with the degree of alignment of the actors and the tasks at hand.

It is possible to consider at least three types of patterns which individuals in three business units can be engaged in (at least when there is a high degree of alignment across the triad) and where the roles played vary. That is, the performance of (i) recurrent operational activity, (ii) operational non-recurrent activity, and (iii) strategic activity respectively.

Different interaction shapes are therefore possible at any one point in time. Triadic flexibility in scenario two is therefore based on the number of activities handled and the variety implied in these.

First, actors in triadic relationships enact existing network positions by playing roles in performing ongoing recurrent activity. For example, for any given three business units forming relationships A-B, B-C and A-C, the existing resource-activity connections across each actor are represented by a single point of contact or multiple individuals. The individuals have roles to play in ongoing recurrent activity, such as monthly meetings to discuss deliveries (discussing current shared teaching programmes would be a university-type example). This is ongoing co-ordination of regular activity streams or sub-processes across the triad. It is based on the existing relationships in place and the type of activity is operational in nature. A large part of the interaction involved in this triadic 'play' may well take place via routines.

Secondly, the three business units can perform a type of activity or problem solving which has a different time frame. The networking task remains operational in nature but can be classed as being more irregular. There are current but relatively dormant activity-resource connections in place which are activated for, say, the performance of an annual review or similar (price setting or negotiations being a clear example here). Nevertheless a different type of interaction is implied as there is per definition a different activation of the current resource-activity linkages across the three actors. The roles played by the individuals involved also vary between the two operational triadic tasks under discussion here. For example, there may be other individuals as single/multiple points of contact or the knowledge needed to perform this networking activity may be distinct.

The third interaction type that may occur within an aligned triad involves strategic or future-oriented activity. That is, the performance by multiple individuals across the triad in order to connect existing resources in different ways or to connect a new resource into a set of existing resource connections so to be able to perform a new activity. The outcome of the triadic interaction is a set of more or less clear activity linkages, but of course these are no more than activity linkage potentials at the start of any discussion. Each actor has to represent the interests of their organisation, perform envisioning activities and at least in some way champion the work required to re-fit, develop or otherwise organise resources. Technical development is the obvious example here. A university-based example would be the establishment of a new programme by fitting together various existing and new courses from three involved departments or faculties.

The multiple performances of the three activity types and the variety implied in this are how we explain triadic flexibility in scenario two. The third triadic dynamics scenario, described below, is that of ‘multiple roles in different triads’. Here it is the multiple roles in different triads played by the same focal actor which is the location of triadic flexibility.

3.3 Multiple roles in different triads (timer)

As mentioned above in section two, in the early work of IMP it was recognised that an organisation can have multiple network positions simultaneously (Mattsson, 1989; Easton and Araujo, 1989). More recently the network position concept has been intersected with the idea of mobilising from an existing position, using inter-organisational projects to influence existing positions, and playing multiple roles from multiple positions.

If we take a unitary triad as the point of departure, a firm may take different and multiple roles within the triad. These roles can be related to the position in the supply network, e.g. acting as a supplier, a sub-supplier, a customer etc., or it could be related to the coordinating activities the firm performs, e.g. joining, relating, insulating, mediating or connecting (Holmen and Pedersen, 2003; Holma, 2009).

A more complex situation is when the firm is taking part in different triads at the same time, or in other words playing different roles in these different triads. Furthermore these triads can be partly overlapping. The situation in which a firm plays multiple roles in different triads has to some extent been discussed in different types of literature. First, Wu and Choi (2005) have identified five different roles/archetypes for suppliers in supplier-supplier relationships in various triadic settings. These are conflicting, contracting, dog-fighting, networking, and transacting. Given different triadic settings the same supplier can take on different roles depending on the role of the other supplier in the triad and the role/position of the common buyer. Other authors who have discussed different ways of managing the suppliers and build relationships among the suppliers have used a triadic setting (Choi and Wu, 2009; Dubois, 2009; Wu, Choi and Rungtususastham, 2010).

Secondly, the roles of intermediaries, especially different types of service providers, have been discussed in a triadic setting. Holma (2009) studied triads in a travel management setting, looking into triads containing an industrial enterprise, a service supplier and a business travel agency. In a similar vein Holma, Björk and Virtanen (2009) have looked at different triads in the tourism network setting. Dubois, Holma, Anderson and Hulthen (2011) have studied logistic service providers when analysing changes in a logistics service network. The triads consist of a buyer and a supplier of goods and a logistics service provider. Van der

Valk and Iwaarden (2011) have studied service triads consisting of a buyer, a subcontractor (the service provider) and an end customer from an agency theory point of view to develop better contracting arrangements and monitoring activities.

Thirdly, researchers focusing on strategic nets and/or value nets have looked into how firms (often the hub firm) can have multiple roles within different and partly overlapping strategic nets. Möller, Rajaka and Svahn (2005) have looked at different types of value nets (vertical, horizontal and multidimensional) and how actors can have multiple roles in several of them, and Kähkönen and Virolainen (2011) have studied sources and structural power in such nets.

4.0 Continuity and change in roles

As we argued in section two, networks are known to be in a state of continuity and change simultaneously due to companies changing and developing their positions, roles, relationships and connections within the network while simultaneously keeping, defending and consolidating other positions, roles, relationship and connections. From the perspective of a focal company, we may discern between the role dynamics of counterparts, and the role dynamics of the focal company.

4.1 Role dynamics of counterparts

When considering the role dynamics of counterparts, we may discern between whether a counterpart performs a single or multiple roles in relation to a (focal) company, and also between continuity and change in the role(s) performed by the counterpart, as illustrated in Table One. Furthermore, it should be noted that it is often not clear that a counterpart has moved (or is moving) into a new role. Since this relies on imagining prospective development but also sense-making, which is retrospective, the company may need to experience the counterpart moving before believing that it has moved (is moving). Each form of continuity and change in the roles of a company’s counterparts can be affected by a variety of third parties and, furthermore, involves a variety of managerial challenges.

Table One: Continuity and change in roles performance

		A counterpart appears in...	
		A single role	Multiple roles
Relationship in a state of....	Continuity	Consolidating a single role	Consolidating its repertoire of roles

	Change	Transforming a single role	Transforming its repertoire of roles
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4.1.1 Consolidating a single role

The first possibility in Table One is that of a counterpart ‘*consolidating a single role*’. A counterpart may consolidate its role by persisting in, deepening, and adding additional facets to the relationship without changing the underlying logic of the role.

Example from TrueShip:

“Our customers are not always loyal and tend to “shop around”, but often they come back. In economic upturns, customers tend to be more loyal... however there are no formal agreements... and even loyal customers switch when the price is lower...” One such customer is OffshoreShip. For many years TrueShip has had a close relationship to OffshoreShip. “We have cooperated with them on many occasions, we have designed and built several ships for them, and they have been deeply involved in some of our most innovative development projects”.

There are various third parties influencing the role played in the relationship. For example, if role 1 is a customer role, it is influenced by competitors of TrueShip who also interact with OffshoreShip. The managerial challenges involved here can be summarised as ‘keep on interacting, work to maintain them as a customer and welcome them “coming back”’. If we consider the next example, which also concerns TrueShip:

Example:

For many years, EastShip was a competitor to TrueShip on ship building services. However, having been acquired they have developed a new strategy. As such, EastShip has preserved their yard and started up their own design unit. So, now EastShip and TrueShip competes within design as well as building. “And, you have to give it to them....they are doing very well....”

Here, different third parties are influencing the role played in the relationship. The single role played is a competitive one. Due to the interaction with offshore ship owners, operators and oil companies EastShip has deepened its role as a competitor of TrueShip. As a

result, the managerial challenges are that when interacting with existing and potential customers, to take into account that the customer may be aware of the competitor which is increasingly similar to the company.

4.1.2 Consolidating its repertoire of roles

The second part of Table One involves a counterpart '*consolidating its repertoire of roles*'. A counterpart may consolidate its repertoire of roles by persisting with, deepening and adding additional facets to, one or several of the roles performed in the relationship.

Example:

“One of TrueShip’s main competitors is MarineMotor. By selling equipment and designs to ship owners, MarineMotor is a competitor to us. However, we also buy a lot of equipment from MarineMotor. In other words, MarineMotor is a supplier of equipment, a competitor on design, and a cooperation partner on propeller design development.... The ship owner or the oil company ordering the ship may have existing equipment from MarineMotor installed or for other reasons insist that the ship is equipped with MarineMotor enginesand we are good at adapting to the customer’s requests... We also use MarineMotor as a supplier even if we are not required to do so by the ship owner.... However, when entering the Canadian market, we got a very poor offer on equipment from MarineMotor.... perhaps they gave a better offer to their internal unit that competes with us?... but we have gotten over this incident now, although it created some tension for some time... There is always tension... and we have to manage (it)”...

From this example we can see three roles in which third parties influence the role played in the relationship. First, role one is a competitive role. There are ship owners, operators and offshore oil companies which are in contact with *both* TrueShip and MarineMotor and which involve both in ship equipment and ship design projects. There are also ship yards which install equipment from either MarineMotor or TrueShip onto the ship. Role two is a supplier role: Ship owners or offshore oil companies can specify that TrueShip must install equipment from MarineMotor. Also, there are ship owners or offshore oil companies whose demands, as assessed by TrueShip, are best served by installing equipment from MarineMotor. Role three is a complementary role, as influenced by ship owners and oil companies that need propellers installed on ships.

The managerial challenges in play here incorporate developing internal and relational structures, processes and cultures to enable the company to have an overview of the different roles, predict which role will be played in a particular situation, and handle the counterparts switching between roles.

4.1.3 Transforming a single role

The third part of the table, *'transforming a single role'*, implies that a counterpart takes on a new role and abandons the existing role.

Example from SubseaSystems:

"For many years, the most important customer of SubseaSystems has been BigOil. Early on SubseaSystems sold directly to BigOil. However, nowadays, we mainly sell our systems to engineering, procurement, construction and maintenance (EPCM) companies like OilService and OffshoreService who incorporate SubseaSystems' products into packages containing products from e.g. 20 other technology suppliers.

From this example we can see the old and new roles played by the counterpart. That is, the old role is as a direct customer. This was changed as a result of an altered procurement strategy at BigOil due to the emergence of the EPCM companies. The new role is therefore as an indirect customer, as EPCM companies incorporate SubseaSystems into their total service package to BigOil. This can be either according to specifications by BigOil, or due to their view of SubseaSystems as the most appropriate supplier of these systems to incorporate into their EPCM offering.

Example:

"For some years, SubseaSystems has sold its systems to the engineering, procurement, construction and maintenance (EPCM) company OilService. However, we have been acquired by MegaSystems and OilService has been acquired by the MultiService corporation. Since MegaSystems and MultiService are head-on competitors, and MultiService have an internal unit that develop systems which bear some resemblance to ours and which OilService has started to use, our relationship will undergo change.... from a long-term buyer-supplier relationship to a competitive relationship.... It may even cease to exist... the changes of ownership have fundamentally altered the conditions on which our relationship is built..."

From this second example in this section we can again see the old and new roles played by a third party and the influence on the relationship. The network context changes due to the acquisitions by both MegaSystems and MultiService. The old customer role in the relationship persists only as long as OilService's customers, i.e. oil companies, specify that SubseaSystem must be used as a supplier. The new role in the making is that the two business units will become competitors. MultiService has a policy of using internal suppliers and making offerings based on packages of products from different internal units. Thereby, OilService is no longer allowed to co-operate with SubseaSystems and if representatives of the two companies meet, they cannot discuss technical issues as they did earlier on.

The managerial challenges here are that clearly a counterpart switching from one role to another can be a challenge. The company has to learn to interact with the counterpart in a new manner, and may need to unlearn the interactive approaches which were used while the former role was in operation. In addition, the company has to consider and possibly relate to third parties which support, enable or forces the counterpart in performing (to perform) the new role.

4.1.4 Transforming a repertoire of roles

The fourth part of Table One incorporates when a relationship is in a state of change and the counterpart appears in multiple roles. Transforming a repertoire of roles can encompass the transformation of the roles in the existing repertoire of roles, the adding of new roles to the repertoire, and/or the elimination of existing roles in the repertoire. In the case when the repertoire is reduced to one single role, the change would coincide with the category "transformation of single role".

Example:

ChinaYard has been a competitor to TrueShip for years, but since TrueShip started to sell designs to external customers, ChinaYard has become one of a small set of suppliers from which TrueShip buys shipbuilding services. This occurs when a customer of TrueShip buys a TrueShip ship design but chooses to have the ship built by ChinaYard. Furthermore, ChinaYard may appear as a client for TrueShip, buying a TrueShip ship design only. However, it is a challenge working with ChinaYard, since it is difficult to fully protect ship design patents which, in any case, are quite easy to invent around..... Nevertheless, we don't really see an alternative to working with Chinese yards..... We have memorandums...

agreements on cooperation with the yard ... but 'we don't own them and they don't own us'.... but are we to look at them as a client, or as a supplier.... or as a competitor? Managing in relation to ChinaYard also creates some challenges internally in TrueShip.... When a ship design is sold to ChinaYard by TrueShip Design, TrueShip Yard's representatives are sometime asked (and paid by the internal customer) to assist ChinaYard with building the ship according to the design sold by TrueShip Design. However, this sometimes strains the internal relationship between TrueShip Design and TrueShip Yard.

How are third parties influencing the role played in the relationship in this example? The old role is a competitive one. That is, there are ship owners and oil companies which are in contact with both TrueShip and ChinaYard, and invite both to tender for ship building projects. There is also a supplier role, in that ship owners and oil companies which are in contact with TrueShip, resulting in agreements or requests that a ship is built in a low cost country. Thirdly, there is a client role, in that ship owners and oil companies might have chosen ChinaYard as a supplier of the ship building, but which require that the design is one of those made by TrueShip.

Example:

SuperPower is a supplier of equipment to TrueShip. However, for some years SuperPower and TrueShip have been involved in, and been the main driving forces for, technology development research projects related to a research unit.

In this example, third parties are again influencing the role played in the relationship. First, there is an impact on the supplier role. This is because ship owners or offshore oil companies can specify that TrueShip must install equipment from SuperPower. Secondly, there is a new role, a complementary one, in the guise of a research unit which acts as a facilitator in research involving TrueShip and SuperPower. Here, the managerial challenges are that when a counterpart transforms its role repertoire, the company has to learn to interact with the counterpart in partly new forms, while preserving interaction based on some of the old roles. In addition, the company has to consider and possibly relate to third parties which support, enable or forces the counterpart in performing (to perform) the new role.

4.2. Continuity and change in the roles of the company

So far, we have concentrated on change or continuity in the roles played by a company's main counterparts in the company's relationships. However, one also needs to consider the role of continuity or change of the company. A company constantly aims to improve its position and change the roles it performs in the surrounding networks.

Examples:

“Formerly, TrueShip operated as an integrated company, making ship designs which were subsequently built at the internal shipyard, and equipped with internally developed power and control systems. However, this has changed. Today, we operate in a more network-like manner. The company has been divided into different business units, TrueShip Design, TrueShip Yard, and TrueShip Equipment, each of which may have external customers.

In order to avoid idle capacity at the yard, TrueShip has established the ShipInvest unit implying that TrueShip now operates as a investor in ship building projects, and rents out ships on long/term contracts to oil companies and/or shipping companies....ShipInvest... is a tool to realize projects... and help the customer, e.g. invest 10% and sell out after 2-3-4 years. Going into shipping is a bit dangerous since this could mean that we would become competitors to our customers... we might lose some existing or exciting new customers”....

Furthermore, by establishing relationships to large cargo owners, TrueShip gets insight into requirements and concerns of such actors and, hence, gives TrueShip the ability to develop ships which are attractive to some shipping companies (ship owners) having these as large customers.”

“Starting to operate in different positions can be a challenge, particular in economic downturns. When TrueShip moves into a new position, “the others don't like this”.... It is always a question “will anyone allow us to come into the market, or will the shipyards want to do it themselves?....”

“It is not so easy when everyone is connected to everyone..... We are struggling to find the business model and develop the ‘correct relations’... We have tried to use Porter's Five Forces Model – but we did not complete it....We need to develop relations to actors in

many different parts of the value chain... We are focusing on networks... ‘how to handle networks and alliances’... we believe that it will be the future...”

As the examples show, TrueShip is continually working at changing its position and roles in relation to counterparts and the wider triads-in-networks. A network setting whereby a company is changing roles, and when many of its counterparts are also changing roles, is very challenging to operate in. Furthermore, in such a setting, a company is not only faced with the challenge of making sense of and assessing the continuity and change in the roles of counterparts *experienced* by the company. It also needs to consider the continuity and change that can be *imagined* and deemed possible, as well as reflecting on the efforts of the counterparts to *portray and justify* the change and continuity in the roles they play. In addition, the company needs to consider how to organize internally to handle the continuity and change in the role(s) of the counterparts. In particular, it may be difficult to ensure that no internal unit relates to a counterpart in more than one of its roles, as suggested elsewhere.

If we consider the forms of continuity and change in roles performed by counterparts in relation to the continuity and change in the role(s) strived for by a (focal) company, we get an outline of the role dynamics in the networks in which a focal company is involved. The table below places the examples from the maritime and the offshore oil and gas sectors within an overall model of role dynamics.

Table Two: Continuity and change roles of focal firm and counterparts

Role(s)		Counterpart is.....			
		Consolidating a single role	Transforming a single role	Consolidating its repertoire of roles	Transforming its repertoire of roles
Focal firm is....	Consolidating a single role				
	Transforming a single role				
	Consolidating its repertoire of roles				
	Transforming its repertoire of roles	OffshoreShip	Oil company	MarineMotor	EastShip ChinaYard

5.0 Role dynamics in triadic settings

Having established a conceptualisation of role dynamics, we may consider these in relation to the three triadic settings introduced earlier, as Table Three below illustrates.

Table Three: Role dynamics in triadic settings

		Triadic settings		
		Diamond	Aligned unitary	Timer
Continuity and change in role performance	Consolidating a single role			
	Transforming a single role			
... of focal firm ... of counterparts	Consolidating its repertoire of roles			
	Transforming its repertoire of roles			

The three triadic scenarios enable and constrain the role dynamics involved, albeit in different ways. The opportunities for a focal company for preserving and developing its role(s), will depend on, firstly, whether the role dynamics is framed in the context of a *diamond* comprising a focal dyad; an *aligned unitary* comprising a focal triad, or a *timer* comprising a focal actor and, secondly, on how the counterparts are working at preserving or changing their roles in the triadic setting considered.

6.0 Conclusion

“It is not so easy when everyone is connected to everyone... We are struggling to find the business model and develop the ‘correct relations’... We have tried to use Porter’s Five Forces Model – but we did not complete it... We need to develop relations to actors in many different parts of the value chain... We are focusing on networks... ‘how to handle networks and alliances’... we believe that it will be the future...”

This final quote from TrueShip should make for pleasing reading for every IMP researcher! The principle of connectedness is long-standing and familiar within IMP, and here is a (senior) manager describing the challenges of managing in the day-to-day reality of “when everyone is connected to everyone...” In this paper we have used triads, the smallest unit of network analysis possible, but at the same time a neglected theme, in order to investigate the interdependency expressed in the quote. We have further explored the long-standing continuity-change duality by considering triadic dynamics through the lens of roles and positions in play.

The paper made use of existing research in outlining three triadic scenarios; the diamond, aligned unitary and timer respectively. The scenarios suggest how the roles played within a particular unitary triad changes by the activity task, the counterparts and of course time. Different kinds of flexibility are implied by the three. The empirical examples from TrueShip and SubseaSystems, organisations in the maritime and the offshore oil gas sectors, underpin a matrix of continuity and change in role performance in triads (Table One). The four possibilities suggest different role dynamics within triads based on whether a relationship is in a state of continuity and change, and whether a counterpart to that relationship appears in a single or multiple roles in a changing or continuity state.

Furthermore, the research reported here is exploratory in nature. One issue is that it is based on short vignettes not substantive empirical research. This is because part of the motivation for the paper was developed from a series of discussions and fieldwork with managers in the marine sector around "...how to handle networks and alliances..." in day-to-day practice. Handling the multiple roles played by various counterparts was identified as a managerial challenge. In this paper we have merely scratched the surface in providing some examples of 'change fragments' as role dynamics are in play, and in reality not used or provided a language in which this phenomenon can be explained.

The ability to better explain Table One and indeed to complete Tables Two and Three remains an empirical (as academia is of course lagging practice) as well as a managerial challenge. In other words, the reality of networks is understood: how to manage these when embedded within them is less clear. We propose the framework contained within the three tables and call for further systematic research in order to classify this emergent phenomenon of what are role dynamics in triads. Systematic empirical research might also aid in ongoing attempts within IMP and network theory more generally in linking process-based, ethnographic studies of networks with more abstract level studies of network structures changing over time.

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