

A Network Model of Change Interpretation: Identity Orientation and Networking

Dr Olivia Kyriakidou
School of Management
University of Surrey
Guildford, Surrey
GU2 7XH
UK

Tel: ++44 1483 686348

Email: O.Kyriakidou@surrey.ac.uk

Because of the increasing scale and pace of changes across markets, products, and technologies, the transfer and conversion of knowledge have become critical to both the survival and advancement of organisations. In many situations, traditional governance structures have proved inadequate not only as a means of survival and keeping abreast of industry developments, but also in exploiting knowledge in the setting of new standards that leads to learning and organisational change. Several researchers have argued for the pursuit of cooperative strategies as a means of creating new knowledge and skills that will facilitate change outside the firm's boundaries (e.g., Hamel, 1991; Lyles, 1994; Prahalad & Hamel, 1990). However, despite the emphasis on knowledge transfer and the pursuit of cooperative strategies as an important motive for and facilitator of learning and organisational change, the lack of theoretical integration and empirical research leaves many questions unanswered.

Learning is conceptualised as a virtuous circle in which new information is used to challenge existing ideas and to develop new perspectives on the future and new action routines through “organisational dialogue” (Brown & Starkey, 2000)– “talk that reveals our meaning structures to

each other” (Dixon, 1994: 83). According to Vicari et al (1996) learning involves the transfer of knowledge among different organisational units mainly through interorganisational cooperation that stimulates the creation of new knowledge and contribute to the organisation’s ability to innovate and change (Wenpin, 2001). At the same time, organisational learning can require that individuals be prepared to challenge the group’s or organisation’s identity. However, this can become a barrier to learning and change since individuals, groups and organisations are motivated to preserve/defend their identity through a need for self and organisational esteem. It is implied therefore, that learning and change occurs in a shared context embedded in cooperation and trust that enables organisations to modify their existing routines, gain critical competencies and challenge their collective definitions of the organisation’s identity (Dutton & Dukerich, 1991; Gioia & Thomas, 1996).

Despite the emphasis on knowledge transfer and learning, however, significant gaps in scholars understanding of this phenomenon persist. One particularly prominent void is in the area of the role that organisational networks may play in facilitating learning and organisational change. A growing number of organisation theorists taking a network perspective have recently emphasised how ongoing social ties between organisations can strongly influence their actions and outcomes (Davis & Powell, 1992; Granovetter, 1985; Nohria & Eccles, 1992; Powell, Koput, & Smith-Doerr, 1996; Walker, Kogut, & Shan, 1997; Uzzi, 1996). In this sense, networks have been described as network resources (Gulati, 1999). To date, however, few insights from this perspective have diffused into conversations about change processes. Rather, the theoretical perspective that have most influenced researchers’ thinking about change have been relatively atomistic, giving little attention to the existence or function of interorganisational social structures. As a result, little is currently known about if, how, and why networks may affect organisations’ efforts to transform themselves in order to be competitive.

In this sense, I address the issue of knowledge transfer, learning and change within network arrangements, which has been treated mainly in conjunction with traditional reasons and conditions for cooperation such as risk reduction, economies of scale, and overcoming trade barriers (e.g., Contractor & Lorange, 1988). Much of the previous research has focused on network formation and the motives for cooperation based mainly on a structural approach especially through the

strong and weak ties hypotheses, rather than the social psychological factors influencing the processes within a network relationship and especially within a cooperative network relationship that facilitate organisational change. More specifically, what we lack is a theoretical framework – in particular, one that elucidates identity processes in organisations. Although structural approaches that provide the basis for understanding the impact of networks on organisational change have emerged, it is argued here that identity processes play a central role in the dynamics that unfold in organisational networks in order to facilitate knowledge transfer, learning and change. Identity should be incorporated into the very conceptualisation of the relationship between organisational networks and change. In this sense, networks could be defined as a mixture of people with different group and organisational identities within the same social system (i.e. the network). It is proposed therefore that new approaches in organisational network research should incorporate modes of thinking about identity and especially encourage those that conceptualise identities as multifaceted and dynamic, adopt multiple levels of analysis (Nkomo & Cox, 1996), and promote a positive discourse about networks in organisations.

In this paper, I attempt to explore these issues. I considered how the structural features of an organisation's network interact with its identification processes in order to affect the organisation's capacity for changing or adapting its core features. In this attempt, I explored the applicability of a new way of conceptualising identity proposed by Brickson (2000). The paper is divided into 4 sections. In the first I quickly review the two major network hypotheses drawn from social psychology and sociology that may inform the relationship between networks and change, with a special emphasis on their challenges. In the second I present a framework of identification processes and briefly explain why it appears to be relevant to conceptualisations of organisational networks. In the final section I contextualise the framework by providing a preliminary model of how identity orientations may mediate between the structure of organisational networks and outcomes in terms of the transfer of knowledge and change.

Challenges to Network Theories

A large part of the rationale for considering networks as an influence on the facilitation of organisational change is evident in the existing body of network research, which has grown rapidly in recent years. Network researchers have documented the role of social relations and

interorganisational links in directly affecting organisational outcomes, including organisational survival amid competition and change (Baum & Oliver, 1991; Granovetter, 1985; Miner, Amburgey, & Stearns, 1990; Uzzi, 1996). They have emphasised the important impact of these external social ties and they have sought to augment or supplant these views by mapping out patterns of ongoing social relationships among organisations and examining how social processes that occur within them (such as communication, cooperation, social comparison and social learning) may also shape organisational action and outcomes.

However, in the social networks literature, a debate has arisen over the form of network structures that can appropriately be regarded as beneficial in affecting the organisation's capacity for change. According thus, to the strength of weak ties perspective (Burt 1982; Granovetter, 1973; Rogers, 1995), the primary function of networks is to determine organisations' access to information from the larger environment. An organisation's ties to other organisations can either broaden or restrict its awareness of environmental trends and information and may also expose it to various responses being employed elsewhere in its industry. Depending on its structure, an organisation's network can thus provide sources of information and knowledge created outside the organisation's boundaries, consequently affecting the organisation's ability to change. From this perspective, large networks composed of heterogeneous and transient ties are especially valuable, because they provide the organisation with information from far and wide and are more likely to introduce its decision makers to fundamentally new and foreign ideas and insights (Granovetter, 1973; Rogers, 1995). In contrast, a preponderance of strong links may hinder the ability of the organisation's decision makers to recognise and effectively respond to changing environmental conditions and change accordingly. Because stronger ties require more maintenance, they are necessarily fewer in number and thus provide a lower volume of information. Further, strong ties are also less likely to provide novel information or insights because actors are much more likely to form strong ties with socially similar actors, who tend to possess the same information and to hold similar opinions (Granovetter, 1973; Rogers, 1995).

The alternative view emphasises the strength of strong ties in promoting change. Strong network ties have three defining characteristics. These are: 1) frequent interaction, 2) an extended history, and 3) intimacy or mutual confiding (Granovetter, 1982) between the parties to the relationship

(Krackhardt, 1992). As noted, networks composed predominantly of strong ties provide less diverse or novel information. However, they do provide other benefits that may facilitate change. First, strong ties are more likely to promote in-depth, two-way communication and to facilitate the exchange of detailed information between organisations (Granovetter, 1982; Krackhardt, 1992; Uzzi, 1996). Thus, although strong ties may not maximise an organisation's awareness of environmental changes and potential change of responses, they are likely to be more valuable than weak ties in helping it to decipher the implications of external threats and to evaluate potential responses to these threats. Further, the trust and mutual identification that are likely to exist when ties are strong make it more likely both that organisations will share valuable information with one another and that the information provided will be taken into account and acted upon (Rogers, 1995; Uzzi, 1996).

Relatedly, recent research has led to the important insight that building networks with large numbers of indirect ties may be an effective way for actors to enjoy the benefits of network size without paying the costs of network maintenance associated with direct ties (Burt, 1992). Although such a strategy is undoubtedly conceptually attractive, it appears likely that its value in a given circumstance will be contingent on several factors. Specifically, the relative value of direct versus indirect ties is likely to depend on the degree to which the benefits provided by direct and indirect ties are similar in magnitude and content. To the extent that direct ties provide different types or amounts of benefits, the possibilities of substitution between direct and indirect ties may be limited. Thus, clarifying the implications of cohesive versus disconnected network structures as well as examining the content and relative contribution of direct and indirect ties to various organisational outcomes is important to our understanding of designing effective and efficient network resources.

Determining factors of learning and knowledge transfer Moreover, on the basis of our theoretical understanding of the creation of social knowledge, we identify two determining factors that may influence learning and knowledge transfer as they contribute to the development of cooperative (Wathne, Roos & von Krogh, 1996) and shared organisational networks.

Openness. One determining factor of learning in a network context is the partners' openness in terms of willingness to share knowledge and partner interaction. Strata (1989) defines openness as

the partners' willingness to put all the cards on the table, eliminate hidden agendas, make their motives, feelings, and biases known, and invite other opinions and points of view. Hamel (1991) argues that openness is a determining factor in the potential for learning, and argues that the openness and accessibility of the partners is due partly to their attitude toward outsiders. Moreover, Badaracco (1991) states that openness is paramount in organisational learning because much of what the parties are trying to learn from each other or create together is difficult to communicate. It is often embedded in a firm's practices and culture and it can only be learned through working relationships that are not hampered by constraints. Hence, a distinction can be made between the context and the actual attitude of the network organisations involved.

Trust. The importance of trust within network arrangements has been noted by several authors (e.g., Dogson, 1993; Ring & Van de Ven, 1994). In fact, trust has been emphasised as one of the most important elements in long-term cooperative ventures (Quinn, 1988). More specifically, learning within network arrangements has been found to depend on high levels of trust between partners (Faulkner, 1993).

In taking a micro-level perspective of learning within a network context, it is argued that trust at the network level will only develop over time as a consequence of individual interaction. Rempel et al. (1985) posit that trust evolves from past experience with network partner behaviour as people attempt to understand their partners in terms of acts, predispositions and motives that would predict positive response. As a relationship progresses, the focus inevitably shifts away from assessments involving specific behaviours to an evaluation of the qualities and characteristics attributed to the partner organisation. Thus, trust is placed in an organisation, not in that organisation's specific actions. However, given that a successful relationship is not guaranteed, continuing commitment to and belief in the relationship require some degree of faith. To capture the essence of trust that is not securely rooted in past experience, Rempel et al. (1985) use the terms 'faith'.

As change involves deviation and a certain amount of risk-taking (Moran & Brightman, 2000), organisations would most likely avoid change behaviours unless they operated in a context in which they felt secure. The development of trust in the organisational network so that organisations risk change because they come to trust their network partners as a matrix of

corrective emotional experience (Eisold, 1985) constitutes a way of conceptualising how change may be shaped. Organisations in a network need to perceive an emotional climate in which they can balance the need to feel they belong to a network without losing or devaluing their identity so that they can work toward elaborating new organisational goals that enhance their self-esteem (Brown & Starkey, 2000) and initiate organisational change.

Summary. Network theory has proved to be quite influential in explaining organisational outcomes (Floyd, 1999; Gautam, 2000; Kraatz, 1998). Unfortunately, significant concerns in terms of the generation and management of knowledge transfer and change surround the network approach. As a structural theory ignores the social psychological reality of the organisations and in this sense, it fails to fully elaborate on the factors the processes that determine the transfer of knowledge and change within interorganisational networks. Organisational change strongly depends not only on the organisation's ability to access information outside its own boundaries, an opportunity provided by the existence of networks through the development of openness and trust, but also on its ability to make sense and assimilate the information into its cognitive structures and existing mental models. In this sense, identity, as the organisation's cognitive and sensemaking model, becomes important since it determines the organisation's attitudes and behaviours towards the other companies in the network and the sensemaking and interpretation of the information provided from them. An organisation emphasising a strong collective identity has impermeable boundaries and may demand the development of a homogeneous cognitive profile through the assimilation of its partners' differences. In this sense, a strong collective identity may not facilitate change since it may lose the advantages that come with a differentiated network of companies. Moreover, a strong collective identity may motivate individuals to bask in the successes of their organisation and justify its failure and consequently feel threatened by and resist any information that question the organisational cognitive system. In this sense, an approach is needed that will introduce a framework that comprises formal, structural, and informal social-psychological processes.

The next section provides a new way for understanding the effect of networks on organisational change because it challenges an underlying assumption explicit in network theories: the notion that the network structure is the most influential factor for the facilitation of organisational outcomes and especially change. It offers a new perspective for understanding the effects of networks on

organisational change and may facilitate a more grounded approach to understanding and making interventions related to the dynamics that unfold in organisational networks.

An Identity Framework for Understanding Networks and Change

Social identity theory is one of the main intergroup relations theory that could inform the relationship between the structural elements of networks and the facilitation of change. Social identity theory implies that organisational identities are self-fulfilling systems that provide a sense of stability, positive self-esteem and distinctiveness to organisational entities. Moreover, the notion of distinctiveness entails interorganisational comparisons that provide the figure-ground contrast for crystallising and articulating a unique identity and establishes clear interorganisational boundaries. The existence of boundaries preserves the self-fulfilling nature of identities that creates a sense of “we” as different from “them” and underscores the differences between ingroup and outgroups. A salient collective organisational identity evokes both cognitive (Tajfel, 1969) and motivational (Turner, 1982) mechanisms that frequently lead to discrimination against outgroups, even in the absence of conflict (Tajfel, 1982). However, negative attitudes reduce frequency of interaction, openness and trust which are necessary characteristics for the creation of cooperation and the facilitation of change.

Identity as a cognitive schema defines what is appropriate and inappropriate for the organisation (if only by default). This has several effects for the impact of networks on organisational change. First, the creation and structure of organisational networks may facilitate the creation and elaboration of more widened boundaries and the incorporation of the alter into the organisational cognitive system. In this way, different perspectives are developed that enable different aspects of the environment to get noticed and considered. Second, as a densely interlocked set of self-sealing beliefs, values, and ways of doing things, a strong organisational identity can impede comprehension of issues that exceed its bounds (Ashforth & Mael, 1996; Reger et al., 1994). Through the creation of networks, comprehension of distinct issues is enhanced through the extension of the organisation’s cognitive lenses. Finally, the perceived extension of the ingroup through the creation of networks may reduce feelings of threat when a facet of the old organisational identity is going to change. The creation of networks may satisfy the organisational

need for consistency in order to strive for organisational enhancement through the introduction of change.

In summary, networks could reduce the harmful cognitive and motivational effects of collective organisational identities by widening the organisation's boundaries to include the "outgroups" of the network and by reducing the salience of collective identities. Brickson (2000) refers to two strategies that attempt to reduce the salience of one collective identity indirectly by enhancing another. The first is the creation of a salient superordinate identity (e.g., the organisational network), known as recategorisation (e.g., Gaertner, Mann, Dovidion, Murrell, & Pomare, 1990). However, when it fails because of the lack of unifying goals, original categorisations may reappear (Brickson, 2000; Brewer & Brown, 1998). The second strategy (i.e. cross-categorisation) crosses one identity (e.g., organisation) with another (e.g., functional unit in the network). The idea behind cross-categorisation is that the cognitive system will be muddled by the two distinct organisational identities, which will result in them cancelling each other out (Brickson, 2000; Brewer & Brown, 1998; Doise, 1978), freeing individuals to interact in terms of their personal identity. However, cross-categorisation threatens to increase the number of boundaries between network organisations (Brickson, 2000).

The identity orientation framework outlined in the next section may provide a new lens for understanding organisational network relations as it incorporates a social psychological perspective into the traditional network theories. In its effort, it adopts two of the three Brickson's (2000) conceptualisation of identity orientations: a collective and a relational. In this way, it tries to understand the context that facilitates change in organisational networks.

A Model of Identification Processes in Organisational Networks

The model developed in this section outlines the relationship between network structure and context, identity orientation, and organisational change outcomes. Contextual features of an organisational network likely activate a particular locus of organisational definition, each corresponding to a different identity orientation (Brickson, 2000), by determining the nature of relationships that emerge between organisations in the network. This model emphasises how a given identity orientation in the organisation affects the organisation's and its members' affective investment and behaviour toward its partners in the network which will further affect the climate

of communication and trust between them and the degree of their cooperation that could generate a willingness of experimentation with change.

The present framework emphasises the interaction between formal, structural and identity features of organisations as they affect the generation of organisational change. Network structure is included as it affects the behaviour of individuals in the organisational networks (Kanter, 1977). Organisational network structure refers to the degree and form of integration among organisations in the network, whether they are primarily structured as organisations with firm boundaries, integrated through relationship networks that span formal boundaries, or separated by formal boundaries, divisions and groups. Task structures are also included as they elicit goals and expectations (Brickson, 2000; Hackman, 1992), and determines emergent behavioural patterns (e.g., Hackman & Morris, 1975).

In this sense, the present framework will present a perspective trying to understand how self-perpetuating can be interrupted. Table 1 summarises the various components of the identity orientation model. The two identity orientations are addressed one at a time to illustrate the relationship between formal context, identity orientation activation, and organisational change outcomes. At a general level, the model suggests that organisations that predominantly activate a group orientation may facilitate but will not maximise the benefits of change since there are barriers that confine the individuals to their organisational categories. Finally, organisations activating a relational orientation are most likely to achieve the context in order to facilitate change as categorisation tendencies are reduced and an mutual exploratory and experimental process is established. The relational orientation is addressed last in order to highlight its proposed advantages.

Table 1. Interrelationships of Network Structure and Identity on Organisational Change

	Weak Ties	Strong Ties
Collective Identity	Fragmentary - Inertia	Assimilation
Relational Identity	Co-operative Experimentation - Learning	Refinement co-operation

Group Identity Orientation

Network Contextual Antecedents. When the network structure is such that integration between groups and organisations is weaker than boundaries separating them, categorisation is encouraged and individuals are apt to view themselves primarily in terms of their group membership. Static and salient group and organisational membership elicits a collective identity orientation because it increases the extent to which people identify as organisational rather than network members. In this sense, in segmentalist networks where organisations are distinctly separated from each other, structural barriers are matched by attitudes that confine network members to the organisational category in which they have been placed, and by which they are supposedly defined.

Organisational boundaries can be reinforced when work is performed by distinct and static groups of individuals and organisations and when performance is measured and rewarded according to group and organisational memberships enhancing a collective identity orientation. Salient and distinct organisation-based task and reward structures may lead employees to identify themselves as organisational members, eliciting the motivation to enhance the welfare of their organisation relative to other organisations in the network which is characteristic of a collective identity orientation.

Weak Network Ties – Fragmentation and Inertia. The presence of weak ties even though facilitates the transfer and exchange of different information and knowledge may at the same time underscore the perceived differences between the various organisations in the network and activate distinctions between ingroup and outgroups. In this sense, the existence of heterogeneous and transient ties may create strong and impermeable boundaries between organisations with a collective orientation in the network and confine the necessary affective investment and trust for cooperation and integration. Besides, it is this affective investment that permits the breach of organisational boundaries and creates a climate of security when considering organisational change.

When network organisational groups are perceived to belong to network outgroups, affective reactions may be negative and individuals' and organisations' separation from others is more significant than their integration with others. Given such an identity orientation, organisational members may rely more on themselves and their organisation than on network relationships or network members for such resources as information and support. In this sense, the social

cognition process is composed of automatic and controlled mechanisms (Fiske & Neuberg, 1990), such as automatic categorisation, whereby impression formation is based on category, (i.e. organisational) membership. Negative affective reactions (Fazio et al., 1995) and controlled and limited cognitive processes are required when automatic cognitive categorisation is used. In this sense, social cognition is based on existing cognitive schemes about the 'alter' rather than the actual information provided by the other organisations connected through weak ties. Consequently, diverse information that comes from the network may not enter the existing cognitive organisational schema and remain unnoticed. However, assuming the outcomes of the organisations in the network are linked, members may go beyond automatically categorising the others. However, because this interdependence is prone to being competitive in nature, affective investment and trust will be limited, which may strain the incorporation of new knowledge and information into the existing system. Competition may evoke feelings of insecurity and anxiety, as well as the desire to control other's outcomes, further reducing one's motivation to create cooperative relationships in which to initiate experimentation and change.

Moreover, a collective identity orientation will arguably also motivate individuals to bask in their organisation's successes and to justify its failures (Tesser, 1988), both of which may lead to resistance to change. For example, when an organisation is successful, participants prefer to see the system as justifiable and right and maximise the difference between ingroup and outgroup profit, maximising ingroup advantage (Tajfel, 1970). System-justifying myths are associated with resistance to change (Ashforth & Mael, 1996). When organisations are less successful, they will feel threatened by the alter, which is also linked to resistance to change as the other organisations will be excluded from information networks (Gautam, 2000).

Summarising, the cognitive profiles of the individuals in organisations with collective identity orientations are heterogeneous and individuals tend not to bracket the information provided by the weak ties of their network. Consequently, information is not accessible to the assigning of meaning by all individuals and fragmentary meaning is developed. As a result, inertia may be the outcome of such a network structure when organisations have strong collective identities.

Strong Network Ties – Assimilation. The existence of strong ties assumes the development of intergroup interdependence, affective investment, and trust which may limit automatic

categorisation as well as the cognitive replacement of network collectivities by organisational ones. This means that a heterogeneous cognitive network profile may be developed that will facilitate complex social cognition, the generation and exchange of diverse information in a trusting and affective climate that can enable organisational change. However, complex social cognition is difficult to occur. Collective identity orientation may result in perceiving all network members, including the existing organisational self, in terms of the network – organisational category (e.g., Turner & Oakes, 1989).

When organisations are perceived to belong to the network, affect toward them will be more positive, as long as they subscribe to the same organisational norms. But even assuming complete similarity between the network organisations, it is doubtful that all organisations will be represented in the salient network group. In this sense, boundaries may become salient and subgroupings may arise between the different network organisations within the same network (Lau & Murnighan, 1998). Furthermore, even when assumptions of similarity of the distinct network organisations are developed, the existent but nonsalient distinct characteristics may create perceptions of competition and negative affective reactions between organisational groups that need to be cooperatively interdependent (Johnson et al., 1984).

In summary, the development of trust and affective investment that facilitates change, necessitates perceptions of similarity and subscription to the same organisational norms. However, this necessitates at the same time pressures for assimilation of organisational differences and distinctions necessary for the generation of change through the assimilation of the ‘alter’ into the existing cognitive structures. In this case, even though the cognitive profile is heterogeneous, pressure for assimilation tries to develop a homogeneous cognitive profile that does not generate change.

Relational Identity Orientation

Network Contextual Antecedents. A relational identity orientation is apt to emerge when the organisational context promotes interpersonal cooperation and when distinct groups of individuals in the network are not the overriding emphasis. This orientation is promoted by a network structure emphasising dense and integrated networks of dyadic partnerships and relationships, where density refers to the ratio of actual to potential ties (Burt, 1982) and integration refers to the

degree of interaction among dyadic partners (Baker, 1992). Dense and integrated dyadic relationships will reduce categorisation tendencies. They will make it less likely that individuals will see themselves as members of distinct organisational groups and will increase the extent to which individuals view themselves as relationship partners inhibiting clusters corresponding to organisational characteristics (see Ibarra, 1992). By implementing temporary task coalitions, structuring tasks so that dyadic partners have differing and interlocking roles (e.g., Miller & Davidson-Podgorny, 1987), such networks encourage the sharing of ideas, information, and perspectives across fluid relationship structures.

Dense organisational networks seem to promote interpersonal cooperation and an other-oriented motivation state. Granovetter (1992) appears to be describing a relational orientation in his argument that behaviour embedded within relationships, especially dense relationships tends to reflect others' interest, irrespective of one's own self-interest. Under these conditions complex social cognition is facilitated, trust is developed and participants are willing to learn from their partners and change. In this sense, if the networks of dyadic relationships are in fact heterogeneous, the developing relationships are apt to cross and penetrate the organisation's boundaries and facilitate the assimilation of heterogeneous knowledge that exists in the network.

Weak Network Ties – Learning. A relational identity orientation more than collective orientations, will promote the underlying factors necessary for a complex cognitive understanding of the information and knowledge available in the network. Moreover, the existence of weak ties broadens the organisation's awareness of organisational trends and information from far and wide introducing fundamentally new and foreign ideas and insights. However, as it has been argued by the traditional network structure theories, weak ties are accompanied by limited trust and affective investment. The development however, of a relational identity orientation counterbalances these disadvantages by facilitating complex cognitive understanding and the exchange of detailed information maximising the organisation's awareness of potential trends and change of responses. Complex cognitive understanding helps in the detail understanding of the differences between the partners and the implications of the information and knowledge they generate. Moreover, as individuals are motivated by the other's welfare, both affective investment and trust are more likely evoked resulting in cooperation, rather than competition, which leads to deeper cognitive

understanding and more positive affective and behavioural outcomes and empathy (Batson, 1998; Lanzetta & Englis, 1989) that facilitate the breach of organisational boundaries and the assimilation of the new in the existing cognitive structures.

Furthermore, a relational orientation may also promote the extension of empathy and positive affect, even beyond the interactants in the dyadic interorganisational relationships, to other targets and perceivers and to the organisation as a whole (Brickson, 2000). Wright, Aron, McLaughlin-Volpe, and Ropp (1997) found, in what they refer to as the extended contact effect, that meaningful contact between individuals from different organisations in the network also extends positive attitudes to other perceivers who had no direct contact with these individuals. Merely knowing that an organisational member has had significant interactions with a member from a distant part of the network leads to improved attitudes toward members of that part. This characteristic of the relational identity orientation ensures the gradual adoption of the generated knowledge and information and its results by the organisation as a whole that could lead to the generation of organisational change.

In this way, learning networks may be created with the ability to experiment in order to create new knowledge which goes beyond existing distinctions. It may also create entirely new tasks to invent future businesses, i.e. new products for new customers (Prahalad & Hamel, 1994). It may create the context that facilitates cooperative experimentation in the form of an exploratory discovery process through which the organisation advances its knowledge level. Learning contributes significantly to organisational change because basic strategic distinctions and the taken-for-granted knowledge, are typically challenged and questioned. Information generated through weak ties may lead to the discovery of entirely new strategic domains that may evolve into future business as the relational identity orientation creates the context that permits corporate experimentation. Especially, where the direction and form of strategic development cannot be defined a priori, cooperative experimentation may serve as a discovery process through which the variety in the company's knowledge may increase.

Strong ties – Refinement. Strong ties provide less diverse or novel information that may lead to the development of refinement networks and cooperations that are planned within a well-defined strategic domain. Furthermore, the development of a relational orientation facilitates extensive and

detailed communication which may help them employ validated knowledge from its partners to another task. The result is that the task system of the specific organisation may be extended. In turn, this might broaden the base of profitable businesses. The objective may also be to refine distinctions and to increase the profitability of existing strategic domains.

Strong ties are likely to be formed among similar actors who tend to possess the same information. In this sense, refinement networks and cooperations remain in a well-known strategic domain based on existing distinctions, for instance, the strategy of the companies. Lower-scaled distinctions may be refined, but basic strategic distinctions are assumed to be given. The underlying logic here is that the existence of strong ties together with a relational identity orientation may facilitate the exploitation and/or refinement of existing knowledge by extending the task system in a well-defined, clear line of development (Vicari, von Krogh, Roos, & Mahnke, (1996).

Discussion and Conclusion

The model presented here demonstrates the dynamic nature of the relationship between network structure, identity orientation and organisational change. First, it illustrates how the immediate network context affects which type of identity orientation becomes prominent. Second, whereas most conceptualisations of the relationship between network structure and the generation and/or adoption of change are limited to an analysis of how the existence of strong and weak ties affects the generation of change, this model invites an analysis of how network structures interrelate with the self-definitions of organisational members and affect the generation of change through knowledge and information transfer within the network.

The model places a unique emphasis on the role of forces at the interpersonal level of analysis arguing that interactions enable individuals and organisations to move beyond their organisational identities and generate positive outcomes regarding the generation of organisational change. The argument here is that a very promising avenue of research is the analysis of how meaningful interpersonal relationships across organisational boundaries affect individual and organisational outcomes. A relational identity orientation counterbalances the disadvantages of the weak ties hypothesis and creates a climate of complex cognitive analysis, affective investment and trust necessary for the generation and adoption of organisational change.

Finally, the model indicates practical elements of the network structure that may promote the development of a relational identity orientation. In this sense, network designs and structural interventions clearly focused on promoting a relational orientation may prove more effective.

References

- Ashforth, B.E., & Mael, F.A. (1996). Organizational identity and strategy as a context for the individual. *Advances in Strategic Management*, 13, 19-64.
- Badaracco, J.L. (1991). *The Knowledge Link: How Firms Compete through Strategic Alliances*. Boston, MA: Harvard Business School Press.
- Baker, W.E. (1992). The network organization in theory and practice. In N. Nohria & R.G. Eccles (Eds.), *Networks and organizations: Structure, form and action*: 397-429. Boston Harvard Business School Press.
- Batson, C.D. (1998). Prosocial behaviour and altruism. In D.T. Gilbert, S.T. Fiske, & G. Lindzey (Eds.), *Handbook of Social Psychology* (4th ed.): 282-316. Boston: McGraw-Hill.
- Batson, C.D., Turk, C.L., Shaw, L.L., & Klein, T.R. (1995). Information function of empathic emotion: Learning that we value the other's welfare. *Journal of Personality and Social Psychology*, 68, 300-313.
- Baum, J.A.C., & Oliver, C. (1991). Institutional linkages and organizational mortality. *Administrative Science Quarterly*, 36, 187-218.
- Brewer, M.B. (1988). A dual process model of impression formation. In T.K. Srull & S.R. Wyer (Eds.), *A dual model of impression formation: Advances in social cognition*, vol.1: 1-36. Hillsdale, NJ: Lawrence Erlbaum Associates.
- Brewer, M.B. (1991). The social self: On being the same and different at the same time. *Personality and Social Psychology Bulletin*, 17, 475-482.
- Brewer, M.B., & Brown, R.J. (1998). Intergroup relations. In D.T. Gilbert, S.T. Fiske, & G. Lindzey (Eds.), *Handbook of social psychology* (4th ed.): 554-594. Boston: McGraw-Hill.
- Brewer, M.B., & Gardner, W. (1996). Who is this "we"? Levels of collective identity and self-representations. *Journal of Personality and Social Psychology*, 71, 83-93.
- Brickson, (2000). The impact of identity orientation on individual and organizational outcomes in demographically diverse settings. *Academy of Management Review*, 25, 1, 82-101.
- Brown, A.D., & Starkey, K. (2000). Organizational identity and learning: A psychodynamic perspective. *Academy of Management Review*, 25, 1, 102-120.
- Burt, S.R. (1982). *Toward a structural theory of action*. New York: Academic Press.
- Burt, S.R. (1992). *Structural Holes: The Social Structure of Competition*. Cambridge, MA: Harvard University Press.
- Coleman, J.S. (1988). Social capital in the creation of human capital. *American Journal of Sociology*, 94, 569-596.

- Contractor, F.J., & Lorange, P. (1988). Why should firms cooperate? The strategy and economics basis for cooperative ventures. In F.J. Contractor & P. Lorange (Eds.), *Cooperative Strategies in International Business*: (3-28). Lexington, MA: Lexington Books.
- Davis, G.F., & Powell, W.W. (1992). Organization-environment relations. In M.D. Dunnette & L.M. Hough (Eds.), *Handbook of Industrial and Organizational Psychology*: 315-374. Palo Alto, CA: Consulting Psychologists Press.
- Diehl, M. (1990). The minimal group paradigm: Theoretical explanations and empirical findings. In W. Stroebe & M. Hewstone (Eds.), *European Review of social psychology*, vol. 1: 263-292. Chichester, UK: Wiley.
- Dixon, N. (1994). *The organizational learning cycle*. Maidenhead, UK: McGraw-Hill.
- Dogson, M. (1993). Learning, trust, and technological collaboration. *Human Relations*, 46, 1, 77-95.
- Doise, W. (1978). *Groups and individuals: Explanations in social psychology*. Cambridge: Cambridge University Press.
- Dutton, J.E., & Dukerich, J.M. (1991). Keeping an eye on the mirror: Image and identity in organizational adaptation. *Academy of Management Journal*, 34, 517-554.
- Eisold, K. (1985). Recovering Bion's contributions to group analysis. In A.D. Colman & M.H. Geller (Eds.), *Group relations reader*, vol.2: 37-48. Washington, DC: Rice Institute.
- Faulkner, D. (1993). International strategic alliances: Key conditions for their effective development. Dissertation, Oxford University.
- Fazio, R.H., Jackson, J.R., Dunton, B.C., & Williams, C.J. (1995). Variability in automatic activation as an unobtrusive measure of racial attitudes: A bona fide pipeline? *Journal of Personality and Social Psychology*, 69, 1013-1027.
- Fiske, S.T. (1998). Stereotyping, prejudice, and discrimination. In D.T. Gilbert, S.T. Fiske, & G. Lindzey (Eds.), *Handbook of social psychology* (4th ed.): 357-411. Boston: McGraw-Hill.
- Fiske, S.T., & Neuberg, S.L. (1990). A continuum of impression formation, from category-based to individuating processes: Influences of information and motivation on attention and interpretation. *Advances in experimental social psychology*, 23, 1-74.
- Fletcher, J.K. (1998). Relational practice: A feminist reconstruction of work. *Journal of Management Inquiry*, 7, 163-186.
- Floyd, S.W. (1999). Knowledge creation and social networks in corporate entrepreneurship: The renewal of organizational capability. *Entrepreneurship: Theory and Practice*, 23, 3, 123-144.
- Gaertner, S.L., Mann, J.A., Dovidion, J.F., Murrell, A.J., & Pomare, M. (1990). How does cooperation reduce intergroup bias? *Journal of Personality and Social Psychology*, 59, 692-704.
- Gautam, A. (2000). Collaboration networks, structural holes, and innovation: A longitudinal study. *Administrative Science Quarterly*, 45, 3, 425-456.
- Gioia, D.A., & Thomas, J.B. (1996). Identity, image, and issue interpretation: Sensemaking during strategic change in academia. *Administrative Science Quarterly*, 41, 370-403.

- Granovetter, M.S. (1973). The strength of weak ties. *American Journal of Sociology*, 78, 1360-1380.
- Granovetter, M.S. (1982). The strength of weak ties: A network theory revisited. In P.V. Marsden & N. Lin (Eds.), *Social structure and network analysis*: 105-130. Beverly-Hills, CA: Sage.
- Granovetter, M.S. (1985). Economic action and social structure: The problem of embeddedness. *American Journal of Sociology*, 91, 1360-1380.
- Granovetter, M.S. (1992). Problems of explanation in economic sociology. In N. Nohria & R.G. Eccles (Eds.), *Networks and organizations: Structure, form and action*: 25-56. Boston Harvard Business School Press.
- Gulati, R. (1995). Social structure and alliance formation patterns: A longitudinal analysis. *Administration Science Quarterly*, 40, 619-652.
- Gulati, R. (1999). Network location and learning: The influence of network resources and firm capabilities on alliance formation. *Strategic Management Journal*, 20, 397-420.
- Hackman, J.R. (1992). Group influences on individuals in organizations. In M.D. Dunnette & L.M. Hough (Eds.), *Handbook of industrial and organizational psychology*, vol.3: 199-267. Palo Alto, CA: Consulting Psychologists Press.
- Hackman, J.R., & Morris, C.G. (1975). Work tasks, group interaction process, and group performance effectiveness. In L. Berkowitz (Ed.), *Advances in experimental social psychology*, vol.8: 45-99. New York: Academic Press.
- Hamel, G. (1991). Competition for competence and interpartner learning within international alliances. *Strategic Management Journal*, 12, 83-103.
- Huff, A.S. (1991). *Wives – of the organization*. Paper presented at the Women and Work Conference, Arlington, TX.
- Ibarra, H. (1992). Structural alignments, individual strategies, and managerial action: Elements toward a network theory of getting things done. In N. Nohria & R.G. Eccles (Eds.), *Networks and organizations: Structure, form and action*: 165-188. Boston Harvard Business School Press.
- Johnson, D.W., Johnson, R., Maruyama, G. (1984). Goal interdependence and interpersonal attraction in heterogeneous classrooms: A meta-analysis. In N. Miller & M.B. Brewer (Eds.), *Groups in contact: The psychology of desegregation*: 187-212. Orlando, FL: Academic Press.
- Kanter, R.M. (1977). *Men and women of the corporation*. New York: Basic Books.
- Kanter, R.M. (1983). *The change masters: Innovation and entrepreneurship in the American corporation*. New York: Basic Books.
- Katz, I. (1981). *Stigma: A social psychological analysis*. Hillsdale, NJ: Lawrence Erlbaum Associates.
- Kelly, D., & Amburgey, T.L. (1991). Organizational inertia and momentum: A dynamic model of strategic change. *Academy of Management Journal*, 34, 591-612.
- Kraatz, M.S. (1998). Learning by association? Interorganizational networks and adaptation to environmental change. *Academy of Management Journal*, 41, 6, 621-644.

- Kraatz, M.S., & Zajac, E.J. (1996). Exploring the limits of the new institutionalism: The causes and consequences of illegitimate organizational change. *American Sociological Review*, 61, 812-836.
- Krackhardt, D. (1992). The strength of strong ties: The importance of philos in organizations. In N. Nohria & R.G. Eccles (Eds.), *Networks and organizations: Structure, form, and action*. 216-239. Boston: Harvard Business School Press.
- Lanzetta, J.T., & Englis, B.G. (1989). Expectations of cooperation and competition and their effects on observers' vicarious emotion responses. *Journal of Personality and Social Psychology*, 56, 543-554.
- Lau, D.C., & Murnighan, J.K. (1998). Demographic diversity and faultliness: The compositional dynamics of organizational groups. *Academy of Management Review*, 23, 325-340.
- Lyles, M.A. (1994). The impact of organizational learning on joint venture formation. *International Business Review*, 3, 37-45.
- Miller, N., & Davidson-Podgorny, G. (1987). Theoretical models of intergroup relations and the use of cooperative teams as an intervention for desegregated settings. In C. Hendrick (Ed.), *Group processes and intergroup relations: Review of personality and social psychology*, vol 9:41-67. Beverly Hills, CA: Sage.
- Miner, A.S., Amburgey, T.L., & Stearns, T.M. (1990). Interorganizational linkages and population dynamics: Buffering and transformational shields. *Administrative Science Quarterly*, 35, 689-713.
- Moran, J.W., & Brightman, B.K. (2000). Leading organizational change. *Journal of Workplace Learning: Employee Counselling Today*, 12, 2, XX.
- Nkomo, S.M., & Cox, T. (1996). Diverse identities in organizations. In S.R. Clegg, C. Hardy, & W.R. Nord (Eds.), *Handbook of organization studies*: 338-356. London: Sage.
- Nohria, N., & Eccles, R.G. (1992). *Networks and organizations: Structure, form, and action*. Boston: Harvard Business School Press.
- Pierce, J.L. (1995). *Gender trials: Emotional lives in contemporary law firms*. Berkeley: University of California Press.
- Powell, W.W., Koput, K.W., & Smith-Doerr, L. (1996). Interorganizational collaboration and the locus of innovation: Networks of learning in biotechnology. *Administrative Science Quarterly*, 41, 116-145.
- Prahalad, C.K., & Hamel, G. (1990). The core competence of the corporation. *Harvard Business Review*, 68, 79-91.
- Prahalad, C.K., & Hamel, G. (1994). Strategy as a field of study: Why search for a new paradigm? *Strategic Management Journal*, 15, 5-16.
- Quinn, J.B. (1992). *Intelligent Enterprise: A Knowledge and Service Based Paradigm for Industry*. New York: Free Press.
- Reger, R.K., Gustafson, L.T., DeMarie, S.M., & Mullane, J.V. (1994). Reframing the organization: Why implementing total quality is easier said than done. *Academy of Management Review*, 19, 565-584.

- Rempel, J.K., Holmes, J.G., & Zanna, M.P. (1985). Trust in close relationships. *Journal of Personality and Social Psychology*, 49, 1, 95-112.
- Ring, P.S., & Van de Ven, A. (1994). Developmental processes of cooperative interorganizational relationships. *Academy of Management Review*, 19, 1, 90-118.
- Rogers, E. (1995). *Diffusion of innovations*. New York: Free Press.
- Tajfel, H. (1969). Cognitive aspects of prejudice. *Journal of Social Issues*, 25, 4, 79-97.
- Tajfel, H. (1970). Experiments in intergroup discrimination. *Social Issues*, 25, 4, 79-97.
- Tajfel, H. (1982). Social psychology of intergroup relations. *Annual Review of Psychology*, 33, 1-30.
- Tajfel, H., & Turner, J.C. (1986). The social identity theory of intergroup behavior. In S. Worchel & W.G. Austin (Eds.), *Psychology of intergroup relations* 2nd ed. 7-24. Chicago: Nelson-Hall.
- Tesser, A. (1988). Toward a self-evaluation maintenance model of social behavior. In L. Berkowitz (Ed.), *Advances in experimental social psychology*, vol.2: 181-227. New York: Academic Press.
- Turner, J.C. (1982). Towards a cognitive redefinition of the social group. In H. Tajfel (Ed.), *Social identity and intergroup relations*: 15-40. Cambridge: Cambridge University Press.
- Turner, J.C., & Oakes, P.J. (1989). Self-categorization theory and social influence. In P.B. Paulus (Ed.), *Psychology of group influence*: 233-275. Hillsdale, NJ: Lawrence Erlbaum Associates.
- Uzzi, B.D. (1996). The sources and consequences of embeddedness for the economic performance of organizations: The network effect. *American Sociological Review*, 61, 674-698.
- Vicari, S., von Krogh, G., Roos, J., & Mahnke, V. (1996). Knowledge creation through cooperative experimentation. In G. von Krogh & J. Roos (Eds.), *Managing Knowledge: Perspectives on cooperation and competition*.
- Walker, G., Kogut, B., & Shan, W. (1997). Social capital, structural holes and the formation of an industry network. *Organization Science*, 8, 109-125.
- Wathne, K., Roos, J., & von Krogh, G. (1996). Towards a theory of knowledge transfer in a cooperative context. In G. von Krogh & J. Roos (Eds.), *Managing Knowledge: Perspectives on cooperation and competition*.
- Wenpin, T. (2001). Knowledge transfer in intraorganizational networks: Effects of network position and absorptive capacity on business unit innovation and performance. *Academy of Management Journal*, 44, 5, 996-1015.
- Wright, S.C., Aron, A., McLaughlin-Volpe, T., & Ropp, S.A. (1997). The extended contact effect: Knowledge of cross-group friendships and prejudice. *Journal of Personality and Social Psychology*, 73, 73-90.