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## **Hop, step, jump! Building social capital by learning through bridging, bonding and linking**

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**Abstract:** Studies on social capital have produced major evidence for the contention that a firm's social capital has an important implication on organisational performance and innovation (Leana and Van Buren, 1999). More recently, there is research that suggest that there are highly significant links between people's network and their learning (Van der Krogt, 1998). Utilising individual knowledge and skills is increasingly becoming a core task in the field of Human Resource Development (HRD). Herein, the skills and knowledge that is created within organisations can be seen as created through groups rather than by isolated individuals (Field, 2005). The premise of this study was that within the organisational context, the ability for an individual to acquire new skills and knowledge depends on different types of connections between organisational members. In turn, this is effected by the composition of social capital. The underlying reason of this premise is that individuals construct their own organisational context in which the acquirement of skills and knowledge takes place. The more connected employees are with others in the organisational context, the more likely they will be knowledge productive or innovative. These inter-person connections in organisations prove to be a major vehicle to organise and to understand work-related learning processes.

**Keywords:** building social capital; learning; organisational context; human resource development; HRD.

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## **1 Introduction**

The work of Human Resource Development (HRD) is continuously evolving. Recent developments in HRD are driving a transition from traditional forms of learning to the perspective that learning is a social process. HRD is now expected to make a strategic-level contribution to organisations and individuals. Due to the understanding that organisational members are the critical factor in developing and maintaining competitive advantage, utilising individual knowledge and skills is increasingly becoming dominant. Moreover, the knowledge that is created within organisations can be seen as created through groups, rather than by isolated individuals (Field, 2005). The premise of this study is that within the organisational context, the ability of an individual to acquire new skills and knowledge depends on the different types of connections between organisational members. The more individuals are connected, the more likely they will be knowledge productive or innovative. Connections between the individuals within the organisational context create and constitute social capital in organisations. Social capital is provisionally based on the networks, norms and trust that constitute the resources required for individuals, workplaces, groups, organisations and communities to strive for sustainable futures in a changing socioeconomic environment (Coleman, 1988; Putnam *et al.*, 1993). The central argument of research on social capital and (lifelong) learning is that people's social relationships play a vital part in their capacity for learning. The concept of social capital has received considerable attention among sociologists, economists and political scientists, particularly during the late 1990s. In this study, substantial use is made of this growing debate over social capital amongst the researchers in the fields of socioeconomics, policy research and business sciences. Only recently has social capital theory been linked to the implications for HRD (Kessels and Poell, 2004). Studies produced empirical evidence to suggest that there are highly significant links between people's networks and their learning (Field, 2003; OECD, 2001b). People's active engagement in the wider social context is an important aspect of their learning (Field, 2005). For this reason, there is a burgeoning interest among business researchers in the way social capital can influence organisational performance and development by facilitating and managing organisational learning via individual learning and social networks.

In this study, it is explored whether learning is concerned with the acquisition of skills and knowledge or, more generously, the creation of these aspects (Field, 2005). The following research question was formulated:

How does social capital, specifically trust and norms of reciprocity, facilitate organisational learning via individual learning and social networks?

This central research question is translated into two subquestions:

- 1 Which connections can be identified and how do they influence the acquisition of new skills and knowledge for organisational members within the organisational setting?
- 2 How do these connections operate?

Learning is considered a major vehicle for organisations to implement the necessary structural, technological and cultural transformations that are needed to grow or, at least, to survive (Kessels, 1993; 2001). Social capital is currently broadly viewed as a facet that makes organisations capable of learning, which makes them more successful than others (Leenders *et al.*, 2001). Scholars in conceptual traditions agree that it is important to recognise that social capital is not a single entity, but is rather multidimensional in nature (Adler and Kwon 2002; Grootaert *et al.*, 2004; Kostova and Roth, 2003; Leana and Van Buren, 1999). Hence, it is not sufficient to investigate the dynamics of social capital and learning purely based on a structural ecology (Burt, 1997; 2001) or on the internal qualities of relations (Coleman, 1988; Fukuyama, 1995b). This study goes further than that by offering a social perspective on learning and development in organisations. It provides insights on the facilitation of learning in the workplace via social relationships in the organisation. Through social relations, individuals strengthen and exploit their own career identity which, in turn, will increase work productivity and job performance. These individual outcomes will be translated into better organisational performance and competitive advantage.

## **2 Conceptual background**

This section seeks to explore the background of the current interest in learning and social capital. Several social capital perspectives are integrated, which lead to a new, dynamic perspective on learning processes.

### *2.1 Social capital*

The current debate and clarifications on social capital theory lead to the suggestion that social capital, as a concept, is rooted in social networks and social relations and, hence, must be measured relative to its roots. Social capital can be defined as the resources accessed and/or mobilised in purposive actions, as well as embedded in a social structure (Lin, 2001; Lin *et al.*, 2001). By this definition, social capital contains three ingredients:

- 1 resources embedded in a social structure
- 2 accessibility to such social resources by individuals
- 3 the use or mobilisation of such social resources by individuals (Lin *et al.*, 2001).

Therefore, there are three elements intersecting structure and action:

- 1 structural (embeddedness)
- 2 opportunity (accessibility)
- 3 action-oriented (use) (Lin, 2001).

The focus on the substance of social capital depends on:

- the relations an actor maintains with other actors
- the structure of relations among actors within a collectivity
- both types of linkages (Adler and Kwon, 2002).

The first group is based on the bridging view, which addresses social capital as a resource that inheres in the social network tying a focal actor to other actors (Burt, 1992). In contrast to the view of social capital as a resource located in the external linkages of a focal actor, the bonding view focuses on collective actors' internal characteristics (Adler and Kwon, 2002). In this respect, social capital lies in the internal structure and within the linkages among the individuals and groups that give collective cohesiveness and facilitate the pursuit of collective goals. The third group is neutral on this internal/external dimension. Adler and Kwon (2002) provided three arguments for this 'mixed model':

- 1 the distinction between the external and internal views is a matter of perspective and analysis
- 2 the internal and external views are not mutually exclusive
- 3 the behaviour of a collective actor is influenced both by its external linkages and the fabric of its internal linkages; its capacity for effective action is a function of both.

### *2.1.1 Typology*

At this stage, a typology may be helpful, at least for heuristic purposes. Hence, Table 1 offers an overview of the used definitions on social capital theory. This scheme follows the description of bridging, bonding and a mixture of both, as stated in the previous paragraph (Adler and Kwon, 2002).

If there are different types of social capital, it seems that some types may be linked to particular forms of learning. Abstracted from what is known about these types of social capital and learning, it seems that bridging, bonding and a mixture of both contribute to learning; however, they seem to do so in a different and rather contrasting way. It is not at all easy to decide which is the most effective one; each has its own strengths and weaknesses (Field, 2005). For this reason, the next subsection presents an additional scheme to categorise the different perspectives on social capital and their contribution to the learning processes.

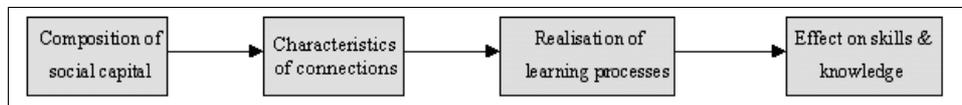
**Table 1** Classifying some definitions of social capital

<i>Views</i>	<i>Authors</i>	<i>Definitions of social capital</i>
Bridging views: social network (external) Structural element (embeddedness)	Bourdieu (1986)	Social capital is the sum of the resources, actual or virtual, that accrue to an individual or group by virtue of possessing a durable network of more or less institutionalised relationships of mutual acquaintance and recognition (p.248).
	Burt (1997)	Social capital is a function of brokerage opportunities and draws on network concepts and the structural autonomy created by complex networks (p.340).
	Portes (1998)	The ability of actors to secure benefits by virtue of membership in social networks or other social structures (p.6).
Bonding views: Linkages among people (internal) Opportunity and action-oriented element (access and use)	Coleman (1988)	People's ability to work together voluntarily. Social capital is defined by its function; it is not a single entity, but a variety of different entities having two characteristics in common: they all consist of some aspects of a social structure and they facilitate certain actions of the individuals who are within the structure (p.S101).
	Fukuyama (1995a)	The ability of people to work together for common purposes in groups and organisations (p.10).
	Putnam <i>et al.</i> (1993)	Social capital means the features of social organisations, such as networks, norms and trust, that facilitate action and cooperation for mutual benefit. Working together is easier in a community blessed with a substantial stock of social capital (p.167).
Double view: views are not mutually exclusive Structural element (embeddedness) and opportunity and action-oriented element (access and use)	Nahapiet and Ghoshal (1998)	Social capital is the sum of the actual and potential resources embedded within, available through and derived from the network of relationships possessed by an individual or social unit. Social capital can be seen as the source of organisational advantage (p.243).
	Leana and Van Buren (1999)	Organisational social capital is defined as a resource reflecting the character of social relations within a firm. It is realised through members' collective goal orientation and shared trust, which creates value by facilitating successful collective action (p.538).
	Kostova and Roth (2003)	The potential value arising from certain psychological states, perceptions and behavioural expectations that social actors form as a result of both their being part of social structures and the nature of their relationships in these structures. High levels of social capital are reflected in a motivation to maintain those relations, to reciprocate and having a physic comfort in asking for resources and by providing them (p.301).

2.2 Learning as a social process

When trying to link learning to social capital, the literature is scarce, mainly because this is a relatively new field (Kessels and Poell, 2004). From a social constructivistic approach, learning is described as an active process of knowledge creation of individuals. Knowledge in this respect is the continuous result of social interactions at a specific time and location (Lowyck, 2005). This view on learning reveals many similarities with social capital theory. Social capital theory is built on the notion that individuals connect with each other based on a perceived level of trust, norms, reciprocity and trustworthiness of other actors. In this respect, the composition of social capital within a group or organisation affects the process of knowledge creation for individuals via the quality of connections, as depicted in Figure 1.

Figure 1 Social capital and its effect on learning skills and knowledge



In Table 2, the classifications of social capital are combined with the possible effects on learning within an organisational setting.

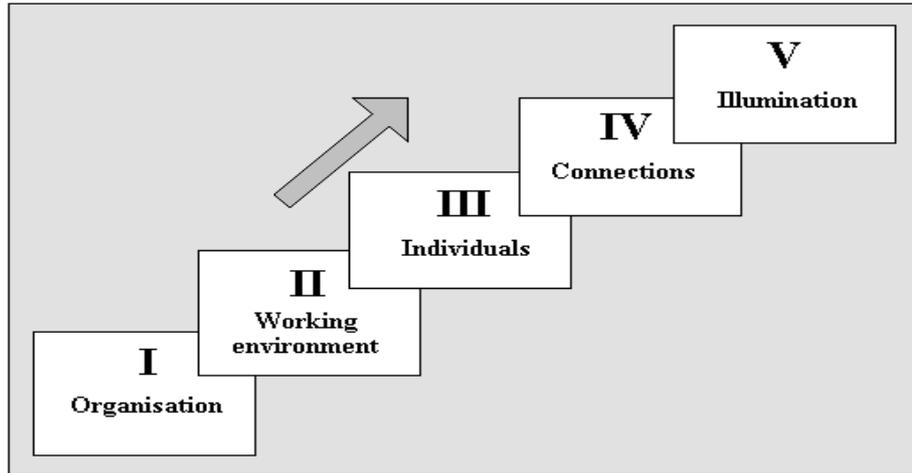
Table 2 The types of social capital and its possible effects on learning

<i>Types of social capital</i>	<i>Possible effects on learning</i>	<i>Characteristics</i>
<p>(1) <i>Network-oriented: bridging</i></p> <ul style="list-style-type: none"> <li>- Shared norms and common goals</li> <li>- Reciprocity and trust are limited</li> <li>- Mutual attractiveness plays a dominant role</li> </ul>	<p><i>Intracontact learning: level <math>\alpha</math></i></p> <ul style="list-style-type: none"> <li>- Relatively free exchange of skills and knowledge</li> <li>- Knowledge sharing is highly context dependent (risk for the individual)</li> </ul>	<ul style="list-style-type: none"> <li>- Unstable connections: searching for balance</li> <li>- Trust influences the reciprocity of information</li> <li>- Norms of reciprocity are unstable</li> </ul>
<p>(2) <i>Relation-oriented: bonding</i></p> <ul style="list-style-type: none"> <li>- Dense and bounded network</li> <li>- Homogeneity of membership</li> <li>- Reciprocity and trust are high</li> </ul>	<p><i>Intracontact learning: level <math>\beta</math></i></p> <ul style="list-style-type: none"> <li>- Free exchange of skills and knowledge</li> <li>- Trustworthiness is created via reciprocity and trust</li> </ul>	<ul style="list-style-type: none"> <li>- Stability</li> <li>- Strong norms of reciprocity</li> <li>- Vision and identification play dominant roles</li> <li>- Group thinking</li> <li>- Danger of limited access to new and varied skills and knowledge</li> </ul>
<p>(3) <i>Cross-oriented: linking</i></p> <ul style="list-style-type: none"> <li>- Reciprocity and trust are context-dependent</li> <li>- Loose and open-ended networks</li> <li>- Connections are based on urgency or curiosity</li> </ul>	<p><i>Intercontact learning: level <math>\gamma</math></i></p> <ul style="list-style-type: none"> <li>- Connections outside the organisation or paradigm</li> <li>- Leveraging a far wider range of resources</li> </ul>	<ul style="list-style-type: none"> <li>- Possible rebalancing of existing interrelationships</li> <li>- Provides a rich set of additional meaning and sense-making to actors</li> </ul>

Note: See also Field (2005, p.24).

Figure 2 provides a starting point in developing a conceptual lens to investigate social capital theory in relation to learning.

**Figure 2** The model of individuals as connecting actors in an organisational setting



### 2.2.1 Organisation

The organisation is the starting point of this scheme; hence, it reflects the first substance in which individuals operate on a daily bases. Based on the central questions posed in the Introduction, this study focuses on social capital in relation to the individual acquisition of skills and knowledge.

### 2.2.2 Working environment

The working environment is a result of main organisational components as the strategy, structure and culture of an organisation. It follows from organisational choices and can be described as the qualities of the environment to operate.

### 2.2.3 Individuals

The individual can be seen as ‘the connection of the world’ (*copula mundi*) because of its unique ability to connect the social context and the organisation to a higher goal. Individuals are the connection between the explicit world of the organisation and its context in which the individual operates and the tacit world of connecting with others in order to learn and reach enlightenment.

### 2.2.4 Connections

The basic idea in this level of analysis is that the architecture of people’s relationships with one another and the quality of the learning they undertake are fundamentally linked and that the two can be harnessed to one another in a mutually beneficial manner (Field, 2005). The perception is that connections generate learning. However, there are different

kinds of connections, each with its own learning outcomes and attributes of social capital. The multidimensionality of the different types of connections will receive attention in the dynamic scheme.

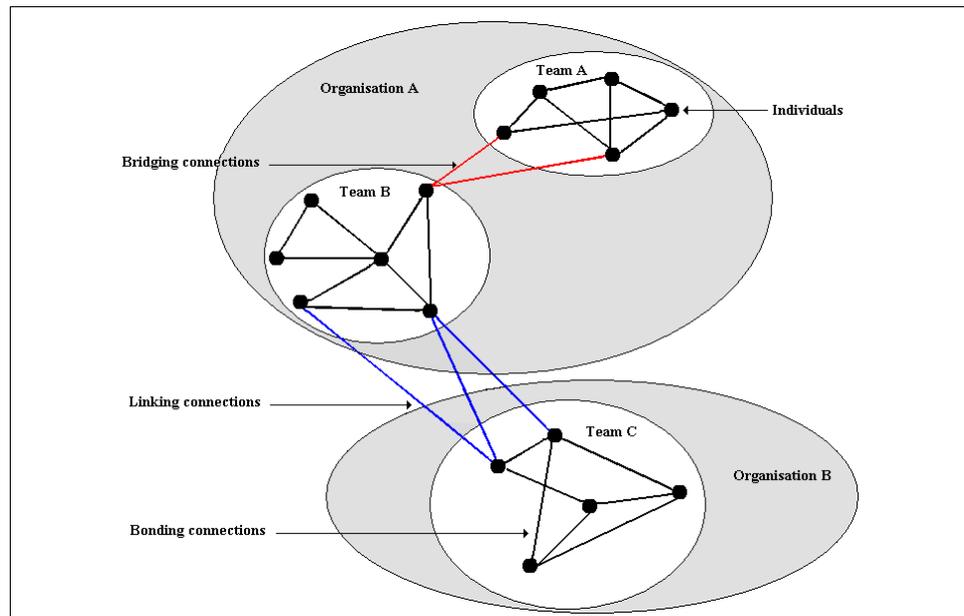
### 2.2.5 Illumination

The illuminated level in Ficino's model can be conceptualised as enlightenment (*illuminatio*). It stands for the perfect team or the perfect group and is thus highly subjective and bound to individuals. All the other layers desire to reach this level of interaction, mainly due to humankind's natural desire to reach illumination.

### 2.3 Dynamic model

As described in Figure 2, there is a hierarchical path leading up to enlightenment via connections of individuals. This point of reference is depicted as the static perspective on connecting. Figure 3 provides an open model in which different types of connections are displayed. These connections facilitate the acquisition of skills and knowledge as conceptualised in Table 3.

**Figure 3** A dynamic model of social capital: the different types of connections (see online version for colours)



The dynamic perspective, as presented in the overall scheme, will be investigated when conducting the empirical research. The five layers of Ficino (1469), as presented in this study, is a prototype instrument. It tries to strike a balance between a conceptual rigour and gaining an in-depth understanding of its levers between the layers. The scholars in conceptual traditions agree that it is important to recognise that social capital is not a single entity, but is rather multidimensional in nature (Grootaert *et al.*, 2004). Given that

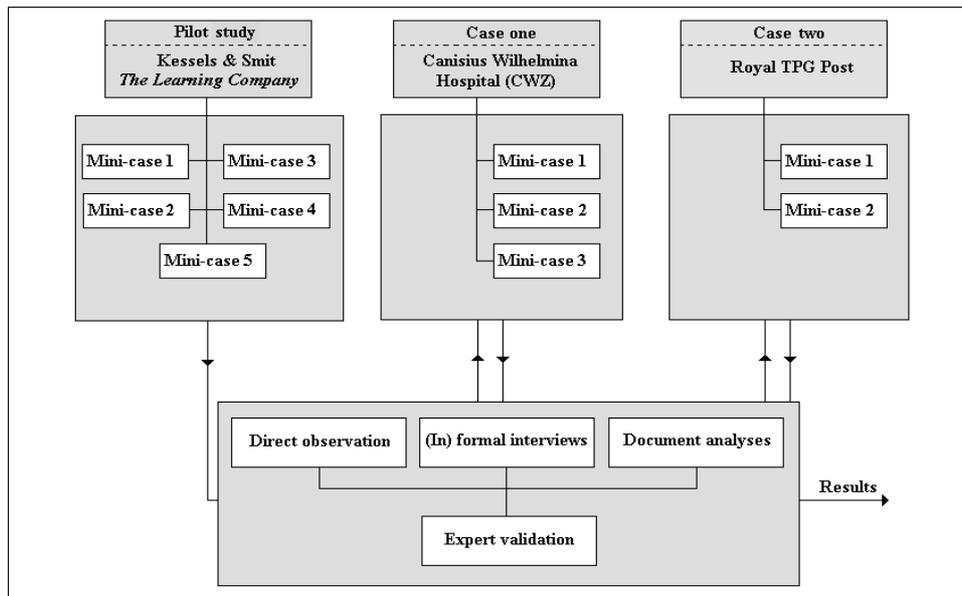
social capital is most frequently defined in terms of networks, identification, norms of reciprocity, trust and trustworthiness, the dynamic model in this study is designed to capture this multidimensionality.

The following section offers some insights on the empirical research findings on the aspects of the relationship between social capital and learning.

### 3 Multiple case study research

This section elaborates on the methodology of this research. The main objective of this study is to provide a detailed understanding of the dynamics of social capital in relation to learning processes. This study investigates a contemporary phenomenon (social capital) within its real-life context, wherein the boundaries between phenomenon and context are not (yet) clearly evident (Yin, 1994, p.13). This study started with formulating some preliminary research questions. These research questions are derived from the business practice and the observations of existing theories that have provided unsatisfactory explanations for these problems (for instance, Kessels and Poell, 2004). Based on the research questions, theories were selected that could contribute to the construction of a theoretical framework and accordingly create a conceptual lens. The primary concern is not what social capital adds in understanding learning processes, but in what manner it facilitates and organises action in groups. To put it bluntly, how does social capital work and in what manner does it relate to connections and the facilitation of learning processes? For this reason, a multiple case study design is actually embedded in nature (Yin, 1994, p.41; Boer, 2005, p.150). Based on this notion, a multiple case study was conducted. The data analysed in this paper came from one pilot case study and two multiple case studies.

**Figure 4** An overview of the case selections



## 4 Results

In the following subsections, the empirical findings are presented. In this respect, it is the objective to move beyond the data and sketch the learning components in relation with the three different connections (bridging, bonding and linking). In addition, the connections, in relation to the acquisition of skills and knowledge, are described and deepened. Consequently, the empirical data will be compared with the created conceptual lens and its selected viewpoints. It can be derived from both case studies that sharing experiences in order to acquire or develop new skills and knowledge is a necessity. Some concrete examples of reflection on specific individual acquisition of skills and knowledge are depicted in this paragraph. Reflection on the acquisition of skills and knowledge reveals the individual learning process. Once recognised, the learning process reveals specific characteristics of the relevant connections between individuals in the organisational context, as schematically visualised in Table 2 and Figure 3.

### 4.1 Bridging connections

According to Bourdieu (1985, p.248), “social capital is the sum of the resources, actual or virtual, that accrue to an individual or group by virtue of possessing a durable network of more or less institutionalised relationships of mutual acquaintance and recognition”. This definition focuses on the social network: tying one individual to another (Burt, 1992). The findings of this study revealed these bridging views. Remarkably enough, the participants expressed that a previous connection (in time) with a specific individual or group did not take place, simply because they were unaware of each other’s presence. Individuals did not connect with each other and share skills or knowledge. This unfolds an interesting perspective when referring to the definition of Lin *et al.* (2001, p.21). By this definition, social capital contains three ingredients: “(1) resources embedded in a social structure, (2) accessibility to such social resources by individuals, (3) and the use or mobilisation of such social resources by individuals”. The individuals did not gain access to the social resources of organisational members. The bridging view, as described by Adler and Kwon (2002, p.19), Field (2005, p.34) and Kessels and Poell (2004, p.152), sketches these connections as ‘already existing’, each scholar with his/her own tinge on the concept of trust and norms. When an individual engages in making a meaningful connection with another individual, the level of trust and trustworthiness is relatively low. However, the level of mutual attractiveness is relatively high in this respect. The exchange of specific skills within a bridging connection started instantly. Knowledge exchange based on bridging connections did not take place frequently. Although the sharing of skills and knowledge can be context-dependent, it does shed an interesting light on the perceived difference between skills and knowledge for individuals in an organisational setting. Based on these findings, bridging connections facilitate the creation of tacit intellectual assets, specifically skills. The findings presented no empirical evidence that knowledge is translated via bridging connections in an organisational setting.

#### 4.2 Bonding connections

The sociological analyses of Putnam *et al.* (1993) and Putnam (2000; 2004) are grounded on the relationships between individuals or between individuals and a specific group. This viewpoint focuses on the internal characteristics of connections (Fukuyama, 1995b). From this angle, Putnam *et al.* (1993) made the following contribution: “social capital is a feature of successful communities, reflected in trust, reciprocity, and strong social norms that facilitate integration and cooperation and provide effective regulation of social behaviour” (pp.35–36). Based on this theory, trust, reciprocity and norms facilitate cooperation and provide the regulation of social behaviour. In this study, the definition of Putnam *et al.* (1993) is categorised alongside bonding connections, which focus on the internal characteristics of specific interactions. The empirical findings portray that group or team norms affect the exchange of skills and knowledge. The constructivistic approach to learning entails that individuals are constantly creating and recreating the social structures, institutions and practices in which they find themselves (Field, 2005). The dense and bounded networks of bonding connections facilitate the homogeneity of membership via norms between individuals. In this respect, bonding connections are characterised by norms that provide the regulation of social behaviour. Consequentially, the empirical findings suggest that the reciprocity of skills and knowledge heavily depend on these interpersonal norms. On the other hand, the created interpersonal norms make the constant use, creation and application of new information difficult, consequently having an effect on the reshaping of the social arrangement. Within bonding connections, the social context is very stable and the individuals who operate in this context experience difficulty in making meaningful, different connections within this paradigm specifically based on skills and knowledge exchange. Instead, the perceived personal contact is meaningful due to unquestionable interpersonal norms and a standard level of reciprocity. Within these dense groups, exchanging information and knowledge remains relatively free. On the contrary, these groups have difficulty in exchanging specific skills. The initial danger of a limited access to a varied set of skills and knowledge (see Table 3) caused by these dense groups mainly finds empirical body in the limited exchange of specific skills, not knowledge. The analyses of Nahapiet and Ghoshal (1998) on social capital specifically focused on the creation of new intellectual capital. In their discussion and implications, they recognised that social capital may also have negative consequences, for instance, specific antagonistic norms. The study findings underline that specific norms in dense networks with bonding connections facilitate supportive cooperation, but block a leveraging of a wider spectrum of specific skills and their consequential exchange. Moreover, “these groups or teams may become ossified through their relatively restricted access to diverse sources of ideas and information” (Nahapiet and Ghoshal, 1998, p.260). The general point of this study is that these dense groups facilitate *a priori* norms that have a significant influence on the forms of exchange and combinations of skills and can subsequently limit their learning opportunities.

#### 4.3 Linking connections

Linking connections are based on the double view of social capital theory that combines the network and relation-oriented perspectives (Leana and Van Buren, 1999). A useful definition of this viewpoint was provided by Kostova and Roth (2003, p.301):

“Social capital is defined as the potential value arising from certain psychological states, perceptions, and behavioural expectations that social actors form as a result of both their being part of social structures and the nature of their relationships in these structures. High levels of social capital are reflected in a motivation from to maintain those relations, to reciprocate, and a physical comfort in asking for resources and provide them.”

In this line of thinking, it is important to note that when relationships are poor in reciprocity, these attitudes and expectations may not simply cease to exist, but may actually take on negative values and result in active resistance towards cooperative behaviour. Based on the empirical findings, some similarities emerge with the bonding connections, for instance, depicted in Section 5.5.2. Within dense groups, cooperation seems to be superficial and is not focused on the specific exchange of skills and knowledge. These dense connections are based on norms and beliefs and play an interesting role in the analysis of social capital and learning not only because they function as a source of social capital, but also because the norms and beliefs in the surrounding environment influence the value of social capital (Adler and Kwon, 2002). When these dense teams or groups are encountered with a linking connection that, in turn, confronts them with new insights (skills) or knowledge, several participants expressed that these shared learning revenues are not (yet) established norms of reciprocity. Moreover, the participants considered a third party from outside the organisation necessary to facilitate this process. These interpersonal norms determine the effectiveness of being a successful broker of one’s skills and knowledge and, thus, affect the ability (and even willingness) to connect outside the bounded organisational setting.

#### *4.4 Overlap between the different connections*

The case study findings reveal specific institutional norms that affect the relationships between organisational members. Moreover, institutional norms hinder the transfer of experiences or skills between organisational members (Nahapiet and Ghoshal, 1998). Therefore, institutional norms affect the three different connections and contain the characteristic of hindering or stimulating learning potential. In this study, the participants were more willing to connect in social exchange when there was a high degree of trust and safety, which presumably are strongly interrelated (Fukuyama, 1995b). The participants indicated that relations grounded on trust serves a vigorous starting point to learning. On the other hand, hierarchical trust, being the level of trust expressed via working with a direct superior, revealed a lack of cooperation to express vulnerabilities. The risk to expose doubt regarding skills or knowledge to a superior enables the possibility to exploit this personal vulnerability (Barney and Hansen, 1994). Hence, the empirical findings are in accordance with the theory of Putnam *et al.* (1993), being that trust itself facilitates the level of reciprocity and cooperation between individuals. Furthermore, each connection thrives on the embedded willingness of the individual to connect. During the case study, several participants stressed that making meaningful connections is difficult when one does not display the willingness to invest in the relation. Since social capital theory has not exposed this willingness as a condition to connect, this reveals an interesting perspective for future research.

#### 4.5 *Illumination*

The static model depicted in Figure 3 portrays five different layers in which individuals are the connecting actors in an organisational setting. In Figure 3 and Table 3, different interpersonal connections were identified, each with its own social capital and learning characteristics. This viewpoint entails that social capital is not considered a single entity, but is rather multidimensional in nature (Leana and Van Buren, 1999; Adler and Kwon, 2002; Kostova and Roth, 2003; Grootaert *et al.*, 2004). The highest level of the static model envisions illumination. The empirical findings of this study suggest that bonding connections are in accordance the most with the example of Senge (1990, pp.4–5). For instance, the participants who largely operate in dense groups described how they naturally know and are aware of each other's strengths and weaknesses. Within such groups, trust and trustworthiness are high, as well as interpersonal norms. Safety plays a dominant role within these groups or teams. Overall, dense groups with bonding connections construct a stable learning environment. In previous paragraphs, the different connections were deepened. Bonding connections facilitate the flow of information and knowledge, but can hamper the flow of skills. Consequently, bonding connections provide a realistic danger to a limited access to new and varied skills and knowledge. Derived from the empirical findings, bridging connections facilitate the flow of specific skills. Linking connections provide access to a varied set of new skills and knowledge outside the organisational paradigm. In addition, linking connections provide the opportunity to leverage a far wider range of resources. In the end, each connection separately has a detailed complexity which influences the acquisition of skills and knowledge. One experiences illumination when the three connections coherently blend together; after all, the strength of connecting lies in experiencing the whole rather than the sum of its parts (Senge, 1990). Utilising all three connections actively enables individuals to leverage a wider spectrum of skills and knowledge.

#### 4.6 *Overview of the characteristics and interaction of the different type of connections*

This paragraph visualises the case study analyses in a coherent framework. Table 3, based on the work of Field (2005), presented social capital connections and its possible effects on lifelong learning. Based on the findings of this study, Table 3 is tested empirically, resulting in the following framework in which the main findings are highlighted.

**Table 3** Social capital and its effect on learning based on the synthesis

<i>Types of social capital</i>	<i>Possible effects on learning</i>	<i>Characteristics</i>
<p>(1) <i>Network-oriented: bridging</i></p> <ul style="list-style-type: none"> <li>– Mutual attractiveness plays a dominant role</li> <li>– Level of trust plays a dominant role</li> <li>– Norm of reciprocity is limited</li> <li>– Moderate degree of shared vision</li> </ul>	<p><i>Intracontact learning: level <math>\alpha</math></i></p> <ul style="list-style-type: none"> <li>– Free exchange of skills (exchange of experiences)</li> <li>– Knowledge exchange is limited</li> </ul>	<ul style="list-style-type: none"> <li>– Instable connections</li> <li>– Bridging enables individual access to a ‘new’ social network</li> <li>– Level of reciprocity is unstable</li> </ul>
<p>(2) <i>Relation-oriented: bonding</i></p> <ul style="list-style-type: none"> <li>– Dense and bounded network</li> <li>– Homogeneity of membership</li> <li>– High interpersonal norms</li> <li>– High level of interpersonal trust</li> </ul>	<p><i>Intracontact learning: level <math>\beta</math></i></p> <ul style="list-style-type: none"> <li>– Free exchange of information and knowledge</li> <li>– Skills exchange is limited</li> </ul>	<ul style="list-style-type: none"> <li>– Stability</li> <li>– Group thinking</li> <li>– Strong norms of reciprocity</li> <li>– Limited access to new skills and knowledge</li> </ul>
<p>(3) <i>Cross-oriented: linking</i></p> <ul style="list-style-type: none"> <li>– Loose and open-ended network</li> <li>– Based on urgency and relevance</li> <li>– Reciprocity and trust is context-dependent</li> </ul>	<p><i>Intercontact learning: level <math>\gamma</math></i></p> <ul style="list-style-type: none"> <li>– Connections outside the organisational paradigm</li> <li>– Leveraging a wider range of resources</li> </ul>	<ul style="list-style-type: none"> <li>– Provides a rich set of additional meaning and sense making to actors</li> <li>– Rebalances the existing interrelationships</li> <li>– Facilitates the process of reflection</li> </ul>

## 5 Conclusion and discussion

The overriding focus of this paper is to deepen the understanding of the concept ‘social capital’ and its effect on the individual acquisition of skills and knowledge in the organisational setting. Since knowledge sharing is considered fundamentally social (Boer, 2005), there is within organisational sciences a burgeoning interest in the way social capital can influence the flow of knowledge and skills within and between organisations. In order to study this interest, the following research question was formulated:

How does social capital, specifically trust and norms of reciprocity, facilitate organisational learning via individual learning and social networks?

### 5.1 Social capital as a learning landscape

The increasing economic pressure on organisations to fight for competitive advantage demands a capability to adapt to the changing environment by the continuous generation and application of new knowledge (Harrison and Kessels, 2004). Knowledge productivity

is a way of facilitating learning, embedded in the social context of organisational teams via meaningful connections between its organisational members. This study concludes that the acquisition of skills and knowledge can only be exploited effectively by embodying a social organisation. Successful linkages between the individuals in a social organisation is largely dependent on a favourable composition of social capital. In practice, reflecting on learning revenues reveals the usage of different connections in the organisational context. These different connections find its origin in the composition of social capital and determine the ability to share knowledge and skills. The acquisition of skills and knowledge largely depends on the joined ability to constantly define and recreate different connections. Individuals regularly reshape their social arrangements in order to optimise learning opportunities. Social capital influences this ability by affecting the realisation of meaningful connections due to the constructed levels of reciprocity, norms, identity, identification, trust and trustworthiness. The mobilisation of social capital involves reflection on past and future learning processes. Herein, learning processes are seen as an active and interactive process in which new meanings and understandings are constantly being produced and (re)created at the same time. In this sense, social capital is truly a landscape of learning opportunities; the richness of this landscape is nothing more than an individual's choice to connect, (re)define and (re)create. In doing so, individuals discover and construct their own learning landscape.

### 5.2 *The dynamic scheme: illumination*

In this study, illumination is illustrated by means of a quote from the book *The Fifth Discipline*, written by Senge (1990, p.4). The static model, based on Ficino (1479), transcends its way up to illumination. Herein the perfect team or group is represented in which they *together* construct their learning environment and realise the acquisition of skills and knowledge. Key to success here is 'a social gathering' realised via meaningful, different connections where none of the bridging, bonding or linking. The natural strive to realise individual learning opportunities is embedded in a favourable social context. Each connection has positive effects on learning and social capital, but the successful linkages of the different connections serve as the most powerful prerequisite of social capital for individual learning. Viewed in this light, individuals use the bonding connections to exchange ideas and information within the group. In addition, bridging connections provide the potential resources for individuals to share skills with other subgroups. Finally, linking connections serve as an open resource to support change and leverage a far wider spectrum of skills and knowledge. For this reason, *illumination* is the successful leveraging of bonding connections within a group, bridging connections, within the organisation and linking connections, outside the organisational paradigm.

### 5.3 *Getting connected*

The focal point of this study is straightforward: social capital and its consequential connections have a value and an impact on the learning objectives of individuals and, thus, the level of human capital. Human capital can be defined as the knowledge and skills of a professional in an organisation (Pennings *et al.*, 1998, p.426). The correlation between human capital and social capital is very close, not definitionally or tautologically, but empirically (Putnam, 2004). Opposite the mainstream of educational perspectives on learning, social capital and, more specifically, 'getting connected'

underlines the individuals' active engagement in the wider social context. Hence, it is distinctively different than the concept of education (Field, 2005). The acquisition of new skills and knowledge is formally obtained during the education of the individual. Besides the fact that social capital enhances the educational process (Putnam, 2004), connections within, across and outside the organisational paradigm prove to be a major vehicle in the personal acquisition of skills and knowledge. The benefits from social capital spill beyond the people immediately involved in the network and can be used for many purposes. Using the social capital lens reveals that 'getting connected' unleashes different learning outcomes. These different connections have one thing in common: they act as a learning landscape in which individual learning objectives can truly become stories that 'we' share.

#### *5.4 The three different connections*

The economy is rapidly transforming into a knowledge economy (Drucker, 1993). Organisations must learn quickly, drawing on information from many external as well as internal sources in order to be able to repeatedly improve and innovate (Kessels, 2004). This study provides empirical evidence that in order to realise the flow of skills and knowledge, three different types of connections can be identified, each with its own impact on the individual acquisition of skills and knowledge. The manifestation of these different types of connections is based on the social process of knowing and is fostered by the social context of an organisation. Hence, meaningful connections to share skills and knowledge heavily depend on social capital and are based on trust, the norms of reciprocity and the environmental awareness of the individual.

#### *5.5 Scaling up social capital*

Woolcock (2001) has emphasised the importance of linking connections. Herein, this study specifically dealt with the connections that stretch outside the community to leverage resources. The evidence that Woolcock (2001) presented focused on social and economical communities. This study provided empirical evidence that 'scaling up' social capital via linking connections generates relations of trust between these individuals and directly influences the acquisition of skills and knowledge. Consequentially, building connectedness between organisations, teams or groups supports the sharing of information, ideas, skills and knowledge.

#### *5.6 Dense groups*

The work of Field (2005) described different types of connections, each with its own particular form of learning. This study partly used Field's framework in order to conceptualise these connections in relation to different forms of social capital. Field (2005) described: "through the creation and internalisation of achievement norms, bonding social capital is likely to favour participation in formal education and training" (p.32). Although this is not based on the organisational setting but on education, this study makes a small theoretical distinction. Groups with bonding connections are based on high norms of reciprocity, interpersonal norms and high level of trust and trustworthiness. In effect, this study revealed that bonding connections do not facilitate a

wide spectrum of new skills and knowledge. The level of bridging and linking connections was relatively low in dense groups. On the other hand, Field (2005) made a strong contribution by stating that close ties favour informal learning with the immediate group. However, it may also limit the access to the skills and information not readily available to the group. The difference between this viewpoint is located in combining the different types of connections which was done in this study and gaining insight in the different types of connections individually (Field, 2005).

### *5.7 Limitations of the study*

The second subquestion aimed at understanding the specific identified connections in how they operate in an organisational setting. In this study, two organisational settings were investigated via two case studies consisting out of multiple subcases. Therefore, one can question whether the variety in organisational settings is sufficient. Since this study investigated the individual acquisition of skills and knowledge, it is not considered problematic. On the other hand, while interpreting the findings of this study, one has to be rather modest about making generalisations.

Construct validity refers to the operational measurement of the concepts being studied (Cooper and Schindler, 2003). In order to achieve this, observable phenomena that cover the theoretical concepts adequately (indexing) need to be identified up front and the right measurement instrument needs to be developed to determine these phenomena (Cooper and Schindler, 2003). Based on the work of Boer (2005, p.159), three ways have been found to improve construct validity: using many different sources of evidence, maintaining a chain of evidence and creating a case study database. These principles are also important for establishing the reliability of this study. Furthermore, using a multiple case design gives the opportunity to validate the stability of constructs across situations (Yin, 1994).

### *5.8 Directions for further research*

The findings broadly confirm that the acquisition of skills and knowledge of individuals is grafted by three different types of connections. They also indicate that networks consisting mainly of bonding ties release a more limited and less heterodox range of information, skills and knowledge. Viewed in the light of a wider context, future research should focus on the larger picture of social capital. Specifically, the influence of other connections such as family and friends upon learning should be taken into account. This is a very broad view of a learning society and takes HRD research into largely uncharted territory.

All the posed definitions of social capital in Table 2 have one point in common: the creation of social capital requires effort (investments) and allows their purposeful use. This study has not taken into account the role of information technology and its effect on the different types of connections. One can think of different roles that computer applications may play, for instance, e-mail, the internet, digital communication or videoconferencing. Further research ought to take these connections within groups, organisations and communities into account.

Longitudinal research concerns the collection and analysis of data over time. Longitudinal data are essential if the research purpose is to measure social change: they allow a diachronic analysis of the incidence of conditions and events (Cooper and

Schindler, 2003). In future studies, several types of data may be regarded as longitudinal. In this study, a cross-sectional study was performed; hence, in future research it could be suggested to repeat this cross-sectional study over time. The subjects or cases, when analysed, ought to be the same or at least comparable from one period to the next. Furthermore, the analysis should involve some comparison of data between or among periods. Insights into the processes of social capital can thus be greatly enhanced by making more extensive use of longitudinal data.

Whereas this study has been qualitative in nature, future research could focus on quantitative analyses as well. Since this study has contributed to a further operationalisation of the different types of connections, the role of social capital and its consequential effect on learning, this study provides directions in order to do so. In this respect, there are several possible directions for further quantitative research. Firstly, the different types of connections, with their unique social capital components and learning outcomes, can be quantified. Based on these insights, one can also count their occurrences in different situations, such as for interorganisational and intraorganisational cooperation. Secondly, it would be interesting to perform either qualitative or quantitative simulations in order to explore the dynamics of the different types of connections over time. A possible design of such a simulation could be based on the data collection instrument of this study, complemented with a survey. During this session, according to the data collection instrument, individuals are also questioned about the specific network in which they operate. Based on these findings combined with quantitative data concerning knowledge and skills exchange via different connections, new insights can be brought to light. Over time, this can be repeated, for instance, combining this with the measurement of the corporate curriculum in which the individual operates (Van Lakerveld, 2005) and their work-related learning and development (Van der Sluis, 2002).

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