



Dimensions of Social Capital - structural, cognitive, and relational

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Abstract

The distinction between structural, cognitive, and relational social capital was created by Janine Nahapiet and Sumantra Ghoshal and is the most widely used and accepted framework for understanding social capital. These dimensions are conceptual distinctions that are useful for analytic convenience but in practice social capital involves complex interrelations between the three dimensions. Structural social capital indicates the presence of a network of access to people and resources, while relational and cognitive social capital reflect the capability for resource exchange (Andrews 2010). Cognitive and relational social capital may seem similar however cognitive relates to the subjective interpretations of shared understandings whereas relational is feelings of trust that are shared by the many actors within the social context (group, organisation, community). Thus, a simplified view of high levels of social capital would be strong connections, high levels of trust and a shared sense of mission. Or put another way we can understand social capital by the level of interconnectedness, quality and nature of these connections, and extent of common shared vision (Akram et al. 2016). This relates to social capital as structural (connections among actors), relational (trust between actors) and cognitive (shared goals and values among actors) dimensions.

Keywords: social capital, theory, structural, cognitive, and relational

Introduction

The structural/cognitive/relational distinction builds on Granovetter's (1992) discussion of structural and relational embeddedness. It conforms to the prevailing view that social capital constitutes aspects of social structure, and the nature of social relationships, especially norms. Thus 'structural' and 'relational' social capital.

Structural social capital is tangible and can be readily observed by the existence of network ties (ie who knows who) as well as roles, rules, precedents, and procedures. The relational dimension however is intangible since it is what and how people think and feel. It is therefore 'cognitive' since it is a function of people's cognition and has regularly been termed as such. It is common in the literature to find reference to two dimensions: structural and cognitive eg (van Bastelaer 2001; Chou, Yuan 2006; Grootaert et al. 2003; Krishna and Shrader 1999; Uphoff 1999). Since approximately 2004 it has become much more common to find reference to the three dimensions, structural, cognitive, and relational, and this is now the mostly widely used and accepted framework.

Structural and Cognitive two-way distinction

If using a two-way distinction structural social capital is much the same as authors who use three dimensions but cognitive social capital is typically described as values, beliefs, attitudes, behaviour and social norms as well as trust, solidarity and reciprocity (Krishna and Shrader 1999). This represents the aspects of both cognitive and relational social capital as conceptualised under a three-way distinction. There are other variations in the literature, for example Krishna (2000) terms the first type of social capital as 'institutional capital' and the second as 'relational capital'.

Interrelationships and causality between structural, cognitive, relational

Previous studies have suggested that the three dimensions of social capital and their different facets are highly interrelated (Bond III, Houston, and Tang 2008; Tsai and Ghoshal 1998). The investigation of the links between them is essential for understanding social capital as a whole and the effects it can have in a given context (Lefebvre et al. 2016). In practice, the dimensions of social capital may be so intertwined that it is hard to dissect them. The dimensions are connected and mutually reinforcing (Uphoff and Wijayarathna 2000).

It is clear that the structural dimension is an antecedent to both cognitive and relational dimensions (Tsai and Ghoshal 1998) since social relationships and

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Structural	Cognitive	Relational
Social structure	Shared understandings	Nature and quality of relationships
<ul style="list-style-type: none"> • Network ties and configuration • Roles, rules, precedents, and procedures 	<ul style="list-style-type: none"> • Shared language, codes, and narratives • Shared values, attitudes, and beliefs 	<ul style="list-style-type: none"> • Trust and trustworthiness • Norms and sanctions • Obligations and expectations • Identity and identification

Table 1. Distinctions between structural, cognitive, and relational social capital

structures are essential for social exchange. Network ties facilitate social interaction, which in turn stimulates the development of the cognitive and relational dimensions of social capital. Thus a precondition for the development and maintenance of relational and cognitive dimensions of social capital is that of sustained social interaction (Gooderham 2007).

It is likely that cognitive and relational dimensions reinforce and encourage the development of structural social capital by providing the inclination to interact and form new relationships, roles, rules, and procedures. Thus, there is likely two-way causality resulting in a mutually reinforcing cycle.

In terms of the relationship between cognitive and relational dimensions some authors have found that the cognitive dimension is an antecedent of the relational dimension of social capital. The reason is that shared goals and narratives may lead to shared norms and obligations, as well as to enhance feelings of trust and identity (Rao and Gebremichael 2017). The same trust and identity can lead to increased interaction and sharing that can build cognitive social capital. The two are very closely linked and many authors, for example (Leana and Van Buren 1999; Uhlaner et al. 2015) to find that there is two-way causality.

It seems improbably that one dimension of social capital could exist without presence of the other forms as well, such is the interconnected nature of the dimensions. This supports Nahapiet and Ghoshal's (1998) observation that social capital involves complex interrelations between the three dimensions.

Does the level of investigation change how we conceptualise structural, cognitive, or relational social capital?

Some authors may place more emphasis on one or more dimension depending on their discipline and level of investigation. Investigators interested in social capital at the individual level may be more interested in the structural dimension, especially if they conceptualise social capital as a private good that is generated and owned by the individual. This is because an individual can have control over their investment in their social relationships but have limited control over the wider social environment within which their relationships are grounded. Even if this were the case researchers would be remiss to ignore the other dimensions since the dimensions of social capital are so highly interconnected.

Structural dimension of social capital

Structural social capital is a dimension of social capital that relates to the properties of the social system and of the network of relations as a whole (Nahapiet and Ghoshal 1998). The term describes the impersonal configuration of linkages between people or units. It is the configuration and pattern of connections between people and includes the roles, rules, precedents, and procedures that are expressions of this configuration (Uphoff and Wijayarathna 2000). Structural social capital is tangible and can be more easily observed than the other dimensions of social capital.

Structural social capital is the network of people who an individual knows and upon whom she can draw for benefits such as information and assistance. It is typically considered the density, connectivity, hierarchy and appropriability of the network of relationships in any given context such as a group, organisation, or community (Davenport and Daellenbach 2011). Important aspects of structural social capital are the number of ties a person has, with whom and how strong the tie is (Taylor 2007)

Structural social capital is normally studied using a network approach. In research using the network approach the frequency of contact and resulting social distance among actors in a particular firm or organizational field are plotted to form a web-like diagram illustrating actor interaction patterns (Edelman et al. 2002). It has been analysed from different perspectives that include tie strength and centrality, network stability and size (Lefebvre et al. 2016).

The structural dimension of social capital relates to the properties of the social system, the various forms of social organisation that make up society. It is the network relationships but not the quality of these relationships since the quality of relationships is the relational dimension.

Within the context of structural social capital many scholars have identified the distinction between bonding, bridging, and linking social capital (for example Putnam, 1995; Svendsen and Svendsen, 2003) to describe different types of network ties (Lee and Jones 2008).

Structural social capital facilitates conditions of accessibility to various parties for exchanging and transferring knowledge, and for increasing the exchange opportunity (Ansari, Munir, and Gregg 2012). It provides opportunities for people to gain access to relevant peers with desired sets of knowledge or expertise (Andrews

2010). It makes it easier for people to engage in mutually beneficial collective action by lowering transaction costs and improving social learning (Uphoff and Wijayaratra 2000).

Cognitive dimension of social capital

Cognitive social capital is a dimension of social capital that relates resources providing shared representations, interpretations, and systems of meaning among parties (Nahapiet and Ghoshal 1998). It is the cognitive schemes and systems of meaning as exhibited in common vocabulary and narratives (Davenport and Daellenbach 2011). Cognitive social capital is the shared language and codes that provide the foundation for communication (Gooderham 2007).

Nahapiet and Ghoshal (1998) had originally related cognitive social capital to shared language and shared narratives, but other authors have described it also through shared goals or vision, and shared culture (Inkpen and Tsang 2005; Tsai and Ghoshal 1998)

While the structural dimension can be observed in tangible relationships, roles, rules, and procedures the cognitive dimension is intangible as it relates to interpretations of a shared reality. It relates to Bourdieu's theory of habitus (Bourdieu 1986) – a set of dispositions, reflexes and forms of behaviour people acquire through acting in society. Or it relates to Habermas' theory of lifeworld (Sitton 2003) – the “background” environment of competencies, practices, and attitudes representable in terms of one's cognitive horizon.

Cognitive social capital is often manifested in the use of specific language and codes. For example, certain words within an organisation may have different, or no, meaning outside the organisation (Ansari et al. 2012).

Some authors conceptualise two (structural and cognitive) rather than three dimensions (structural, cognitive, and relational), for example (van Bastelaer 2001; Chou, Yuan 2006; Grootaert et al. 2003; Krishna and Shrader 1999; Uphoff 1999). These authors do not distinguish between cognitive and relational social capital and may use the term cognitive or relational. This has led to additional confusion in the literature about what is included in cognitive and what is relational social capital.

For example, Normal Uphoff (1999) stated that norms of trust and reciprocity are forms of cognitive social capital. However, he conceptualised social capital as only two dimensions: structural and cognitive. So, this may result in unwitting readers includes these factors as cognitive social capital even though under a three-way distinction these factors would be relational social capital.

This confusion is exacerbated by the similarity and overlap of cognitive and relational dimensions. Both forms arise from the mental rather than the material realm, so both are ultimately cognitive. The distinction between the two dimensions is that the characteristics

of the relational dimension they are embedded in, or relate specifically to, social relationships. This is somewhat different from cognitive social capital that describes the wider social context rather than being a characteristic of specific relationships.

Shared understanding within a group, organisation, or community is cognitive, whereas trust and norms of reciprocity is relational as it describes the quality of, or is embedded within, social relationships.

Cognitive social capital is shared values or paradigms that allow a common understanding of appropriate ways of acting. Thus, cognitive social capital provides a set of norms of acceptable behaviour (Anderson and Jack 2002).

Relational dimension of social capital

Relational social capital is a dimension of social capital that relates to the characteristics and qualities of personal relationships such as trust, obligations, respect and even friendship (Gooderham 2007). The key aspects of the relational dimension of social capital are trust and trustworthiness, norms and sanctions, obligations and expectations, and identity and identification (Nahapiet and Ghoshal 1998).

The relational dimension of social capital refers to the nature and quality of the relationships that have developed through a history of interaction (Lefebvre et al. 2016) and plays out in behavioural attributes such as trustworthiness, shared group norms, obligations and identification (Davenport and Daellenbach 2011).

Relational social capital is the affective part as it describes relationships in terms of interpersonal trust, existence of shared norms and identification with other individuals. The relational dimension deals with the nature or quality of networks or relationships (Cabrera and Cabrera 2005).

Nahapiet and Ghoshal (1998) identified that the key aspects of relational social capital are trust and trustworthiness (Fukuyama 1995; Putnam 1995), norms and sanctions (Coleman 1990; Putnam 1995), obligations and expectations (Burt 1992; Coleman 1990; Granovetter 1985), and identity and identification (Hakansson and Snehota 1995; Merton 1968).

The relational dimension encourages normative behaviour based on trust, reciprocity, obligations and expectations (Lee and Jones 2008). A core facet of relational social capital is associability - the willingness to subordinate individual goals to collective goals (Lazarova and Taylor 2009).

There is overlap between cognitive and relational social capital and this can cause confusion for some people. For example, trust and trustworthiness are typically described as parts of the relational dimension. Trust can be is an attribute of a relationship, but trustworthiness remains an attribute of the actors involved (Anderson and Jack 2002) so may be more appropriately conceptualised as cognitive social capital.

Both cognitive and relational social capital are intangible and stem from observation, perception, and opinion so are highly subjective and variable between individuals and contexts. Both forms arise from the mental rather than the material realm, so both are ultimately cognitive, leading some authors to conceptualise both dimensions together resulting in only two dimensions of social capital: structural and cognitive.

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