

Social capital and organizational practice.

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Abstract

There is need of a theory of social capital capable of informing practice in firms aiming to develop social capital. Nahapiet and Ghoshal's (1998) paper on the relationship between social capital and intellectual capital is analyzed to explore its promise in terms of providing a framework for such a theory. To this end the model presented in the paper is explored in terms of its levels of analysis and its explanatory meta-theory. It is demonstrated that Nahapiet and Ghoshal's theory is highly similar to complexity accounts of the developments of social phenomena and it is suggested that complexity perspectives on the development of social capital may follow naturally from, and be consistent with, the bulk of Nahapiet and Ghoshal's arguments and also that such perspectives may hold some promise when it comes to informing the practical development of social capital. **Keywords:** Social capital, intellectual capital, micro-macro problem, complexity theory.

Introduction

Kurt Lewin once said: “*there is nothing so practical as a good theory*” (Lewin, 1952, p. 169). Within the field of social capital one may be given cause to wonder if there are any such good theories. Thus Nahapiet (2008) has stated that in this area there is still much to be learned. In the present paper a definition of social capital close to Nahapiet and Ghoshal’s (1998: 243) definition is adopted. Thus social capital is seen as the actual and potential resources emerging from networks of social interaction, which is in line with the emerging consensus in social capital research. In my current research I am investigating tools and techniques for developing social capital in multinational enterprises (MNEs) and a particular concern is how various arenas in organizations, such as leadership development programmes, project groups and meetings, may involve the emergence of social capital.

In research on MNEs the practicality of social capital theory is important for several reasons. It is important for informing firms in the task of facilitating the sharing of knowledge across boundaries and borders in knowledge-intensive multinational corporations (Gooderham, 2007). There is also reason to believe that with increasing globalization the importance of social capital in this respect will increase (Nahapiet, 2008; Maskell, 2000). Foss has observed that knowledge has become “all the rage” in various areas of research during the last 10 years (Foss, 2007) and scholars have argued for some time that the importance of knowledge for firms may be increasing sharply (Clegg, 1996; Hansen, 1999). While sceptical voices have been raised with respect to the general importance of knowledge sharing as a road to success for all businesses (Alvesson, 2004) it seems clear that knowledge-intensive MNEs experience particular challenges seeking inter-unit knowledge integration in that their business units and key knowledge holders are separated by the size of the corporation, by geographical and cultural distance (Ghemawat, 2001) and also by varying

degrees of local embeddedness (Forsgren et al., 2005; Newburry, 2001). Thus MNEs would seem to be in particular need of knowledge and understanding which might inform attempts in everyday practice to develop and exploit social capital to further the sharing and creation of knowledge. My interest here is primarily how one might think about social capital, understand it and be guided by such understanding in action in researching social capital in everyday organizational life of MNEs. The broader issue is, of course, how social interaction may constitute a resource for firms, particularly when it comes to achieving competitive advantage through the sharing and creation of knowledge.

The structure and context of the paper

I will begin by sketching a context for the importance of practicality in theories concerning the development of social capital, both in general and in terms of current research in which I am involved. I will then proceed to analyze Nahapiet and Ghoshal's (1998) (N&G) paper, primarily with respect to the understanding of social capital and how N & G provide a framework for explaining its development. I will do this by presenting a reading of the paper which refutes recent critique that their theory assumes the independence of routines and organizational practices from individuals (Felin & Foss, 2005). I will relate N & G's theory to Coleman's (1990) framework for explanation and theory in the social sciences to clarify macro and micro levels of the dimensions and facets included in their theory. This is important because a key issue in social capital theory obviously is to understand and explain the emergence of the social as patterns and structures transcending individuals. Coleman (1990) provides a framework for the clarification of this key issue. I will conclude that Nahapiet and Ghoshal's theory is very close to practice in its co-evolutionary account of the development of social and intellectual capital. I also show how it is highly similar to a generalized complexity theory account of the emergence of social phenomena. I will suggest

that further research may benefit from exploring these similarities and from paying more attention to particulars and details in case-study research of the development of social capital. The main contribution of the present paper will, hopefully, comprise furthering the understanding of the practical processes involved in developing social capital in firms. The limitations will be that the space and the format do not provide adequate opportunities for sufficient depth and detail of analyses. For this reason providing practical guidelines for building social capital does not fall within the scope of the present paper. However, a return to practice is strongly advocated in the following.

The practicalities of social capital theory

Social capital theory and research point clearly to the importance of networks, relationships, trust, norms and identity as potential explananda for the creation and sharing of knowledge. Nahapiet and Ghoshal's (1998) paper theorizes how, and in which ways, social capital is important. However, while the demonstration of the importance of social capital is essential, it may not be sufficient to meet the criterion of a good theory in Lewin's terms. Gaining a more practical understanding of how the dimensions of social capital evolve and interact is of particular importance in this respect (Nahapiet, 2008). In general, better understanding of in which circumstances social capital may emerge and be appropriated may better inform practice and would thus come closer to Lewin's concept of a good theory. I will provide a very brief example from my own practice of a recent meeting between research and practice.

At present I am working as a researcher on a project called GOLD – Global Organization and Leadership Development – aiming at developing tools and techniques for

developing social capital in multinational enterprises (MNEs). One of the organizations studied is a Norwegian MNE, a food enterprise spanning 12 countries. The board of this enterprise has decided to initiate a large scale organizational change project which necessitates sharing and creation of knowledge across organizational and national boundaries. This project will involve reorganizing and integrating under one management all functions of procurement and production presently organized in 11 business units, several of which operate across the 12 countries. Thus this MNE is attempting to create an integrated multinational back-end in an otherwise multi-domestic enterprise.

The role of the researchers will be to study longitudinally the relevance of social capital in several arenas for the creation and sharing of knowledge, including the assessment of the effectiveness of attempts at developing capital. The basic assumption is that social capital will facilitate cooperation as well as the creation and sharing of knowledge between project workers and units as the project proceeds. The research method used is partly cross-sectional and quantitative and partly case-oriented through the utilization of semi-structured interviews. The interviews, however, often tends to evolve into conversations on work practices more resembling action research models (Revans, 1982), reflexivity (Woolgar, 1986) and participative type inquiry (Reason, 1994; Reason & Heron, 1996; Lave and Wenger, 1991).

When we introduced findings from social capital research to the members of the change project group, indicating that relationships and trust will probably be important for knowledge sharing, their immediate response was: *“Yes, of course! That’s absolutely correct! We’ve already experienced that.”* They had already discovered that in preliminary project meetings a pattern had emerged where people were not speaking very much, and they had

attributed this to lack of personal knowledge and relations and consequent lack of trust. For them this amounted to an obvious common sense type explanation and their next eager question to the researchers was: “*So what do we do to ensure that relationships and trust are developed?*” This is, of course, the main research question of the GOLD project and our present inability to provide clear answers places us in an awkward position, making us realize that Nahapiet’s recent statement “*we have much to learn about building social capital*” (Nahapiet, 2008) is probably an understatement.

However, as our conversations with the practitioners have evolved on this issue, it has been our distinct impression that the particularities of the individuals involved, the context, the complexity of the task at hand, as well as the history and the embeddedness with respect to collective practice and interaction, very quickly come to the fore. This raises the possibility that further research on the building of social capital should benefit from focusing such issues in terms of contributing to new knowledge and understanding. This would imply interacting and exchange knowledge with the members of the organizations in which we work as researchers; often focusing in great detail on their everyday practices.

It is my aim to explore the potential of Nahapiet and Ghoshal’s (1998) theory of the relationship of social and intellectual capital to provide the foundations of a framework for guiding attempts at developing social capital in practice. This is also what Nahapiet and Ghoshal suggest they have provided through their paper (ibid, p. 262). Before entering an analysis of this paper, however, I will situate the present paper and the issues it raises in a somewhat broader context to illustrate the possible contribution it may make.

The practicality of theory in a wider context

From the present author's perspective (as a former clinical psychologist and part-time organizational consultant) some aspects of economic theory do seem strangely impractical. In particular – and especially for a clinical psychologist by primary education - the mainstream insistence in neo-classical economics on individuals as independent and undifferentiated utility maximizing “social atoms” relating to another largely on the basis of rational choice (Fine and Green, 2000) does not seem strikingly practical. In addition, dominant economic theories seem to be explaining practical phenomena – for instance the existence and success of collectives like firms – in terms of non-market relations compensating for the imperfections in the market, compared to a perfect market, of which it seems exceedingly difficult to find examples (Callon, 1999). From my perspective this hardly epitomizes a practical orientation. So it would seem, then, that economy could be portrayed as persistently impractical in some very important respects but also as persistently dominant in organizational practice.

Economics has also been described as “fundamentally asocial” (Fine and Green, 2000, p. 78) and it seems that social capital is a concept which has been seen to hold some promise in terms of providing a missing link between economist's predictive theories and practical realities like the social (Fine and Green, 2000), in which both economics and firms are embedded. On this view bringing the social back into economics would seem to amount to a return to practice. On a more general basis several scholars also argue for a “Practice Turn in Contemporary Theory” (Schattzki et. al., 2001) and “strategy as practice” is emerging as a new tradition in strategy research (Jarzabkowski, 2005; Johnson et.al. 2007). Kilduff and Tsai (2003, p. 129) predict an increased interest, within network research, in individual attributes,

which would also seem to imply a practical turn. Finally, Felin and Foss (2005) have issued a call for capabilities-based scholars to pay more careful attention to their underlying assumptions, and to develop theoretical arguments which give primacy to individuals. The gist of their critique is that adopting methodological collectivism may obscure important micro-foundations for emergent phenomena on the social level. I will heed the call as – at least partly – a call for a return to practice, and I will try to show that Nahapiet and Ghoshal's (1998) paper is not subject to his critique; thus refuting at least one potential problem related to their model's capability of informing practice. Returning to the social practice of firms with a more practical perspective on the social and social capital in particular, would constitute the broader endeavour in which the present paper is situated.

Defining social capital

The first thing of importance in a theory capable of informing practice would be a clear definition and understanding of the subject of the theory. Put differently, being able to formulate clearly and consistently what one is speaking about is important. However, over the last 10 years reviewers of social capital research and theories have observed no emerging agreement on a precise definition of social capital (Nahapiet and Ghoshal, 1998; Schuller, Baron and Field, 2000; Field, 2002; Nahapiet, 2008). Mondak even saw a risk of the concept becoming muddled and deprived of any distinct meaning (Mondak, 1998). And in the middle of the period from 1998 to 2008 Adler and Kwon (2002) suggested that social capital might be seen as an umbrella concept, broadly understood as “*the goodwill engendered by the fabric of social relations, and that can be mobilized to facilitate action*” (ibid.: 17). There would seem to be reasonable agreement that social bonding, cohesion, integration, identification between individuals, trust, obligations and mutual expectations, developed through networks and interaction would constitute the essential facets of social capital as a resource (Baron et.

al., 2000). And further, that such resources may— to the extent that they are appropriable - constitute capital in the sense of facilitating the achievement of goals (Coleman, 1990).

While this understanding may well capture the essentials of social capital theory I would argue that it has little to offer terms of informing practical efforts at developing social capital. This would certainly be the case in terms of contributing beyond common sense in the context of the GOLD project in the MNE described above. And more generally; if social capital cannot be conceptualized and operationalized in a clear and consistent way there is a risk that the social will remain a fortuitous or happenstance resource in firms rather than a resource appropriable as capital. So I would argue that research and theorizing should proceed from the current general agreement towards greater specificity but I do have reservations. In a paper on social capital and its relation to economy Fine and Green (2000) write that the search for the “holy grail” is now on: *“a consistent measurement instrument that can be applied without major adaptation across a range of situations, for both research and policy purposes”* (ibid., p. 90). The problem with such a search would be the attempt to define social capital without reference to context. If social capital is intrinsically embedded in, and emergent from particular contexts a precise definition may not be possible. And my view is that the social can only be actualized as capital in particular contexts.

Accordingly I share Maskell’s (2000) and also Coleman’s (1990) view when they argue that relevant dimensions of social capital may not be wholly suitable for formal quantification. So in the following I am arguing for an understanding that is explicitly contextualized and situated with respect to practice.

Nahapiet and Ghoshal's conceptualization of social capital.

Moving on from these agreements, the terrain does get difficult when the question becomes how firms may develop and make use of the social as capital. The following are questions which I suggest need to be answered: What kinds of relationships, linking and bonding are beneficial for the firm in question; in and between which sub-units, and in which contexts would they be beneficial, and how could one go about helping such relationships and bonds form between the right people at the right time and in the right places?

I am arguing that a theory of the development of social capital must answer these questions to be a good theory in Lewin's sense. I'm also arguing that in answering these questions - within the context of development of social capital - it becomes necessary to be clear in terms of one's meta-theory in terms of assumptions of the relatedness of the social and the individual, and more generally: how phenomena on the social – or macro – level emerges from the interaction and relatedness on a micro level. This is not an argument for methodological individualism, but rather for clarification, for radical methodological individualism may not turn out to be adequate in this context at all. On the contrary, it may risk contributing to maintaining the split between the individual and the social by opposing them, at least if “homo economicus” is how one understands the individual.

I will explore the status of Nahapiet and Ghoshal's model of explanation with two questions in mind: first, with respect to their levels of analysis and account of the relatedness of micro and macro phenomena; is their model subject to Felin and Foss' (2005) critique? And second, does the model provide the foundations for a framework capable of informing practice aiming to develop social capital? Feline and Foss' recent critique (2005) argued that capability theorists, including Nahapiet and Ghoshal in their 1998 paper, assume the

independence of collectives and routines from individuals and further that employing methodological collectivism is an unsatisfactory approach, because it ascribes independent causal powers to collective entities, suppresses more “micro” explanatory mechanisms that are located at the level of individual action, and therefore also neglects the complicated processes of interaction between individuals . They also argue that with individuals as the locus of knowledge, the questions for capabilities-based work should shift to explicating how routines emerge from individual action, and how they dialectically evolve with the subsequent interaction between individual and collective (ibid., Foss 2007). It is obviously crucial for a theory which aims to inform practice that it does not risk obscuring this practice, so for the present purposes the status of Nahapiet and Ghoshal’s model will have to be explored with respect to the elements of this critique.

The levels of analysis

Confronted with the lack of a precise definition of social capital Nahapiet and Ghoshal (1998) chose to conduct an extensive review of the literature on social capital to identify facets or elements, which they then attempted to integrate into an operationalization of the concept. At that time they found no consensus on a precise definition of social capital and no agreed upon explanation of how social capital facilitates knowledge sharing. They provide this general definition of social capital as: *“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”* (ibid.: 243). In terms of a more detailed definition and operationalization they suggested that it might be useful, in their context of exploring the role of social capital in the creation of intellectual capital, to consider the different facets of social

capital identifiable in the literature. They identified three such clusters of facets, which they call: the structural, the cognitive and the relational dimension of social capital (ibid.). A further specification in terms of operationalization into facets is presented as follows:

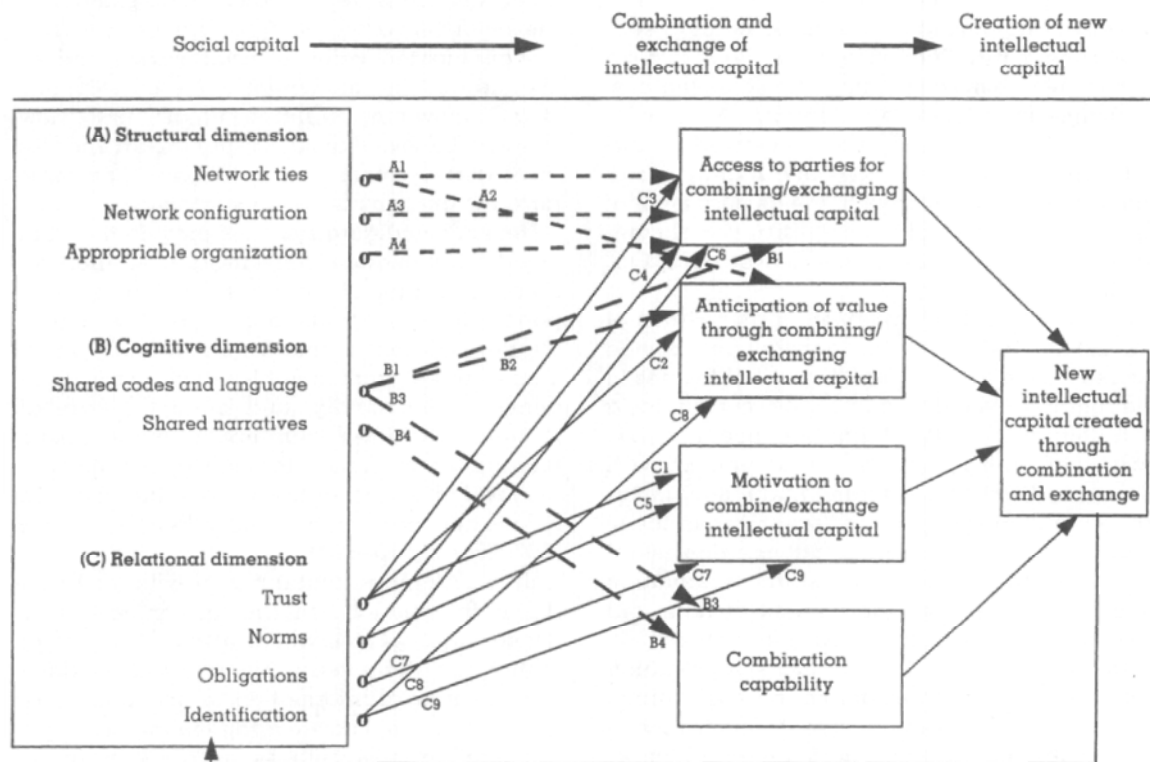
The structural dimension: Network ties, network configuration and appropriable organization

The cognitive dimension: Shared codes and language, shared narratives

The relational dimension: Trust, norms, obligations and identification
(ibid.:244).

Nahapiet and Ghoshal explicitly state that in their illustration of their theory they separate these dimensions (and therefore the facets) analytically “*for the sake of clarity of exposition*” but recognize that many of the features described are highly interrelated (ibid:243). The illustration of the model is reproduced below for easy reference (permission not yet granted for use).

FIGURE 1
Social Capital in the Creation of Intellectual Capital



The arrows in figure 1 illustrate influences; so that the dimensions and facets of social capital influence the conditions for exchange and combination – and exchange and combination in turn leads both to the creation of new intellectual capital and to increased social capital. This last arrow is meant to portray the co-evolution of intellectual and social capital.

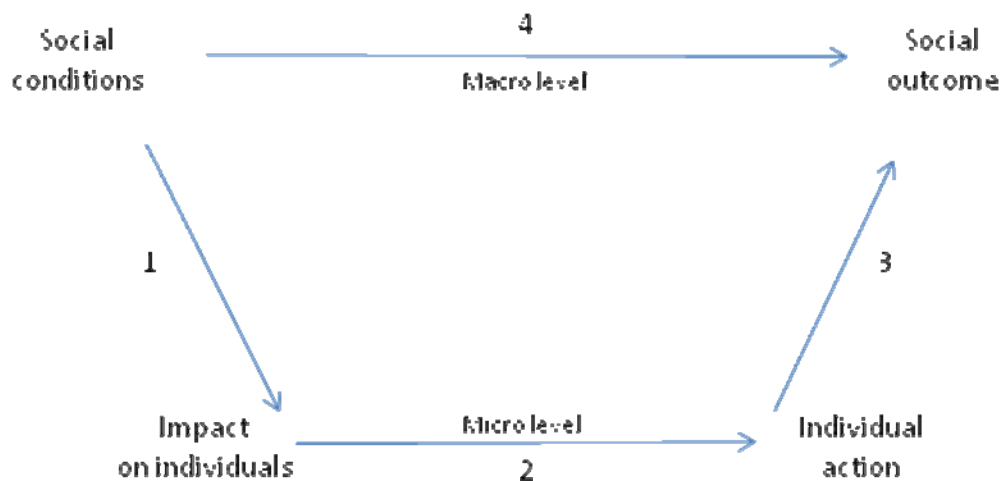
A meta-theoretical perspective on N&G's model.

Coleman (1990) has contributed a meta-theoretical framework for evaluation of the explanations used in theories of the social sciences. Foss makes use this framework when he criticises capability theorists of methodological collectivism from his stance of methodological individualism for assuming a causal connection between social conditions and

social outcome, without taking properly into account – and even obscuring - how this may be mediated by the micro, or here; individual level (Foss, 2007) (Coleman, 1990: 10). I stated in the introduction that I read Foss’ call for more attention to micro-foundations as a call for a return to practice and I now want to show how N & G’s paper is not subject to the critique of methodological collectivism. I will employ Coleman’s (1990) framework to do so and I will also attempt an analysis of the levels of analysis in Nahapiet and Ghoshal’s model.

In introduction I will briefly account for Coleman’s meta-theoretical framework by using a slight adaptation of Coleman’s own illustration (ibid.) (permission for use has not yet been granted for use of the figure).

Figure 2.



Very broadly Coleman’s contention is that social science and social theories are basically concerned with understanding and explaining social and collective systems, including phenomena on a macro level “above” the micro level of individual particulars (in terms of their “internal” functioning). Coleman’s own position is that such explanation should

be done in terms of the action and interaction of the individuals, not merely as the aggregation of individual actions (ibid., p.22). The arrows in figure 2 illustrate two different transitions between the micro and the macro level and one movement within each respective level, all integrated into a whole. One might observe that certain social conditions are related systematically to social outcomes, corresponding to the arrow marked “4” in the figure. However, these social conditions could be observed to have an impact in individuals, illustrated by the arrow marked “1”; and the arrow marked “2”, would correspond to this impact leading to individual action which would then result, via arrow “3”, in a social outcome. I take Felin and Foss’ (2005) point to be that Nahapiet and Ghoshal (1998) in their model assume direct causality via arrow 4, that is, between social conditions, like for instance capabilities, and social outcomes like new intellectual capital.

What seems clear from Nahapiet and Ghoshal’s paper is that the social capital of **firms** is conceived as a phenomenon on the aggregate level and in their model it is sub-divided into three dimensions and several facets, some on an aggregate, or macro, level and some on a micro level. In terms of Coleman’s figure Nahapiet and Ghoshal’s theory states that social capital on the aggregate level of a unit, or firm, influences the conditions for exchange and combination of intellectual capital on the collective level in a facilitating way, by influencing the conditions of combination and exchange of resources to take place, ultimately resulting in new intellectual capital. This new intellectual capital is then said to act back on the social capital, leading to its further development. In the text this is referred to as a representation of the co-evolutionary nature of social and intellectual capital. In order to be able to use Figure 2 it is necessary to analyse the level of analysis of the dimensions and facets in Nahapiet and Ghoshal’s (1998) model.

The levels of analysis of dimensions and facets

The structural dimension of social capital is to do with “*the overall pattern of connections between actors*” (ibid.), which implies resources inherent in a social structure on a macro level relative to individuals, and a micro level relative to the level of the firm since units are considered by Nahapiet and Ghoshal to be actors¹. The cognitive dimension, at least if considered as a discourse which is characteristic of a collective (Foucault, 2000), will also be at a macro level relative to individuals, either on the level of the firm or sub-units. If, on the other hand, it is considered as an identical understanding “inside the heads of individuals”, as it were, it will obviously be situated at the individual level. For the present purpose it could be placed at either level.

Concerning the relational dimension N&G state that it refers to “*those assets created and leveraged through relationships*” (ibid: 244). As they describe it, and referring to Granovetter’s (1992) distinction between structural and relational embeddedness, the relational dimension of social capital is to do with the personal and behavioural aspects of relationships rather than the structural – more impersonal – and connective aspects of networks and interaction. In my reading this implies that the assets of the relational dimension of social capital are situated at the individual level, or at least in interaction “in between individuals”, as it were. Perhaps “the interactional” or dyadic level” would be an appropriate term, but in any case, individual action and interaction is involved. Three facets of the relational dimension, trust, obligations and identification do not present problems in that respect. All of these could represent mutual individual relatedness on the dyadic level,

¹ This is indicated when they write about referrals under the heading of network ties (ibid.: 252).

emerging from and also leading to interaction. Norms could also be situated at the dyadic level, as two persons might share a norm for their relations. Coleman argues that norms can facilitate and constrain on the individual level (1990, p. 311) and I would argue that norms may also emerge as a social phenomenon on a more collective level, such as group norms identified and observed by non-members. To be sure Nahapiet and Ghoshal in their general definition of social capital imply that social units can possess networks of relationships, which may or may not be a valid statement; but it would not preclude the statement that the enacted personal relationships lead to this asset.

I will return, in passing, to this issue later. But for now I would argue that it seems that the facets of the three dimensions are situated at somewhat different levels of analysis; relational social capital would seem to be described and explained mainly on the individual and dyadic level while the two other dimensions would seem to refer to emergent or formal phenomena on a macro level relative to that of individuals. If this analysis is correct neither the three dimensions, nor the facets comprising the relational dimension are immediately additive, and as Nahapiet and Ghoshal have stated; they conceive of them as interrelated.

Based on my reading and my exploration of levels of analysis it is possible to suggest the following – if somewhat extended - account of the model in terms of Coleman's figure:

Figure 3.

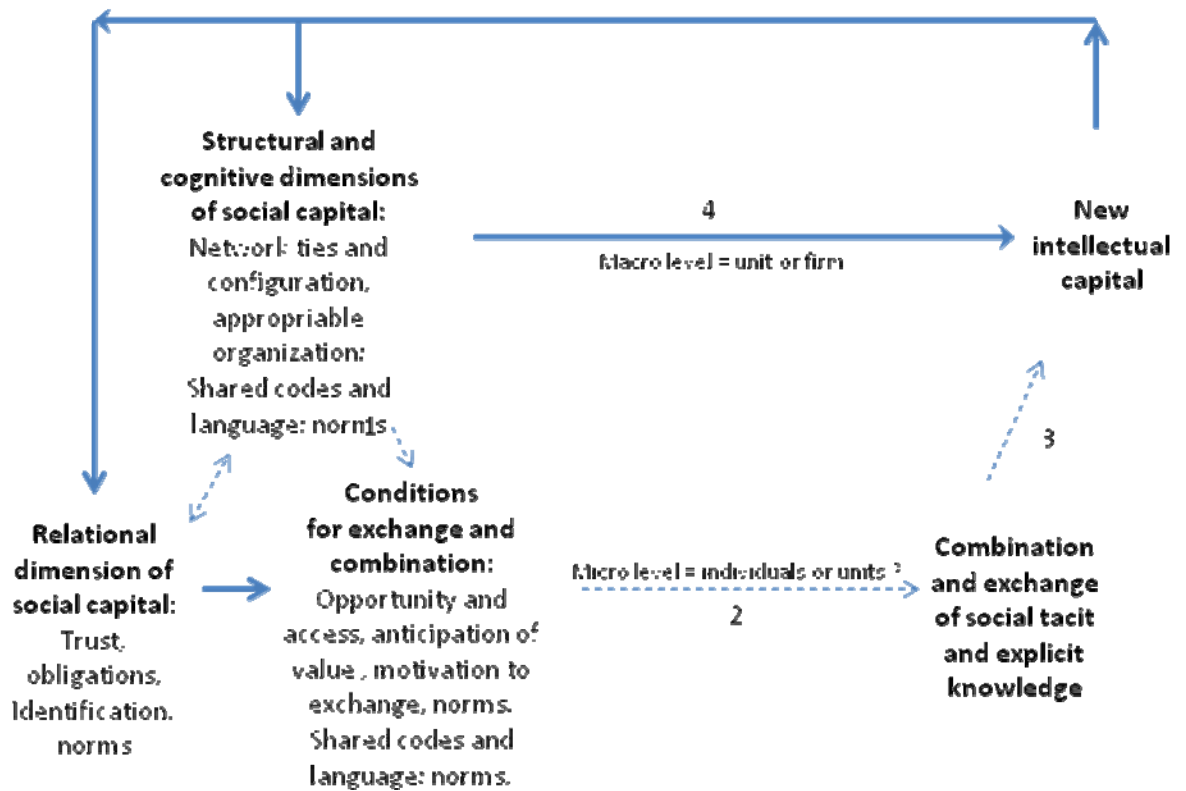


Figure 3 is my attempt to integrate Coleman's (1990) model and Nahapiet and Ghoshal's (1998) model. Briefly, social capital in its three dimensions are interrelated and represents both antecedents and conditions on the micro and macro level for the combination and exchange of social tacit and explicit knowledge. New intellectual capital evolves, or emerges, from such combination and exchange - and social capital evolves further through the same combination and exchange. Based on this illustration it would seem that N & G's theory is not necessarily a theory of methodological collectivism since they do indeed provide a mediating process on a micro level. Accordingly their model is not, in principle, subject to the critique of obscuring micro-foundations in terms of interaction. However, if the expository figure of Nahapiet and Ghoshal, which does not adequately represent interaction and co-evolution, is used in for example structural equation modelling (Kelloway, 1998), without interaction and analysis levels being properly attended to, this might involve the risk of obscuring micro-

foundations and interaction. And, indeed, this is one possible path which research based on Nahapiet and Ghoshal's model might take, which may indeed imply methodological collectivism. But I want to conclude that Felin and Foss' (2005) critique of Nahapiet and Ghoshal for methodological collectivism seems unfounded. In addition to the reasons given above it would seem from Felin and Foss' page reference (ibid:) that they have based their critique on a passage of N & G's paper where they make explicit the restricted scope of their analysis in terms of focusing their analysis on the social explicit knowledge and the social tacit knowledge at the expense of individual explicit and individual tacit knowledge (Nahapiet and Ghoshal, 1998, p. 247). N & G go on to say that this implies that they will be "*unable to capture the influences that explicit and tacit individual knowledge may have on the intellectual capital of the firm*" (ibid.). This does not necessarily imply, however, that all individual factors are neglected. Accordingly this restriction does not necessarily imply the exclusion of individual influence. I hope to make this clear in the next section that N&G's co-evolutionary account of social and intellectual capital point towards a more contextualized and situated path for understanding and research of the development of social capital

As stated above Nahapiet and Ghoshal's figure 1 is used for illustrative purposes and is not immediately compatible with their overall co-evolutionary and interactive theory. This is true to the extent that it implies reductionist sequential and linearly causal account of development, whereas co-evolution implies simultaneous and interactional development. It is true that Coleman's model also seems to imply linear causality, and for that reason other illustrations of the co-evolution of social and intellectual capital should be explored. I will return to this issue below.

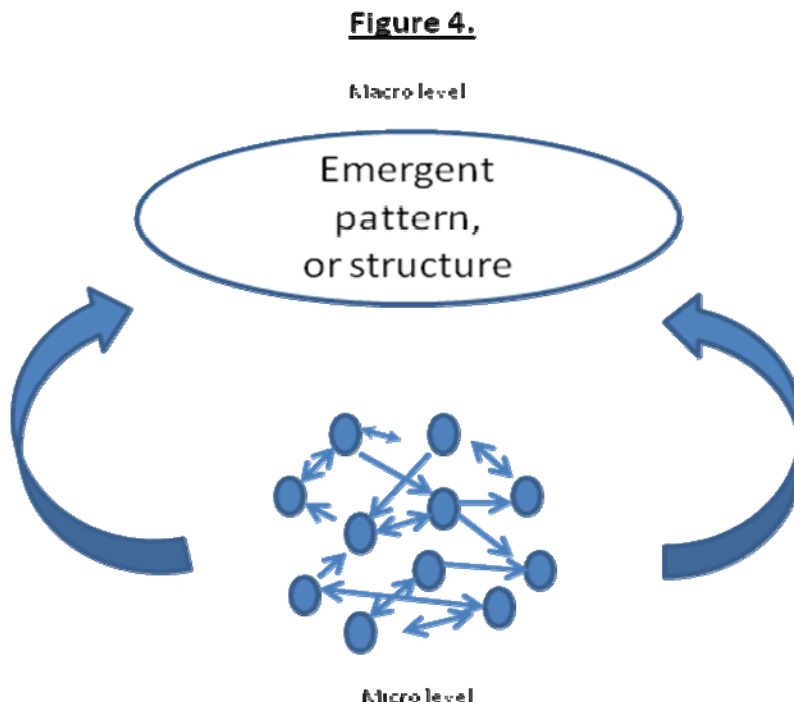
Complexity theory and Nahapiet and Ghoshal's account of the development of social capital

While a reading which focuses heavily on Nahapiet and Ghoshal's expository figure of their model may invite a linear, causal and sequential connection between facets of social capital and conditions for the creation of intellectual capital, their textual account of the same relationships are in terms of co-evolution and other related concepts. In terms of the overall theory they state that this co-evolutionary aspect of social and intellectual capital constitutes the gist of the organizational advantage (Nahapiet & Ghoshal, 1998:259-260). In other words; their main thesis is that differences in performances of firms may represent differences in their ability to create and exploit social capital (ibid.). In terms of their co-evolutionist explanation of this it would seem that organizing in firms – both formally and in terms of resultant opportunities for informal organizing – carries the promise of the emergence of social and intellectual capital, which may be mutually constitutive of each other – which is to say; dialectically related (Collinson, 2005).

Within this broader account the issue of the development of social capital is given considerable space (Nahapiet and Ghoshal, 1998:256-260), and as already mentioned N & G suggest in conclusion that their theory provide the foundations of a framework guiding the building of social capital (ibid., p. 262). From the practical perspective I announced initially I will now explore in more detail their framework for the development of social capital, and in so doing I will point out several similarities and parallels to complexity theory. I will start by giving an account of complexity theory.

Providing a comprehensive account of complexity perspectives on organizations and societies is well beyond what space will allow in this context. Such accounts are available

elsewhere (see for example: Marion, 1999; Sawyer, 2005). For the present purposes, and primarily to support the similarity I argued for above, it must suffice to say that, very broadly, the crucial and defining insight coming from the complexity sciences is that under certain circumstances interaction involving different interdependent “agents” entails a phenomenon called “emergence”, in which a global pattern emerges in the absence of agency, blueprint or plan. Further, such emergent patterns are irreducible to the individual actions of the agents but are still patterned interaction between the agents (see Kaufmann, 1995). Examples of social agents would be members of a group, or members of an organization such as a firm. Examples of emergent social patterns might be the strategy of a firm, organizational culture, a dominant discourse or norms. Figure 4 below is an illustration of emergence, depicting interaction on the micro – often called “local” – level, and emergent patterns, or structures on the macro, or “global”, level.



A crucial point to be taken in relation to complexity is that the emergent patterned interaction shapes and is shaped by interaction; in other words: interaction is self-organizing. Complexity accounts come very close to accounts of dialectic and co-evolutionary processes (see for example Varela et al., 1993; 1999) and a close reading of the N & G's paper reveals that embedded in their text one may find the following account of the development of social capital which corresponds closely to what an account given in complexity terms would look like². I must stress that what follows is my reading, and that some of the concepts used in N&Gs text are in reference of other scholars. But here goes:

Interaction is the pre-condition for the development and maintenance of social capital (ibid., pp. 250,259), which emerges in a complex and dialectical process over time (ibid., pp.257, 258), often in the context of planned and unplanned conversations, in meetings and social events; and embedded within social structures and processes of organizational practice (ibid., p. 258). (We stress) *“the self-producing quality of these social practices”* (ibid. p.259), and their being shaped by and shaping the context in which they occur (ibid., p. 259).

Much the same account is given of the evolution and sharing of collective knowledge, or intellectual capital; and this is the foundation for the co-evolutionary perspective (ibid., pp. 246-247) on social and intellectual capital. There is one difference, however, relating to interdependence. In complexity theories interdependence would be a crucial aspect of interaction, but in a separate section on interdependence and the development of social capital Nahapiet and Ghoshal seem to treat interdependence, at least in explicit terms, as a “stimulus” for interaction and exchange (ibid., p. 257). However, when they write about routines and practices being shaped by and shaping the context of practice it is hard to understand this in

² For an account of the emergence of knowledge in complexity terms, see Stacey (2000))

any other way than as an account of interdependency. So I would suggest that it is not stretching things to far reading Nahapiet and Ghoshal's account of their co-evolutionary model as very close to a complexity informed account.

In my earlier analysis of N & G's model I argued that alternatives to Coleman's (1990) explanatory framework should be explored for the explanation of the development of social capital. The complexity, or emergence framework, may be a possible candidate. Coleman does indeed emphasize emergence when he states that "*the interaction among individuals is seen to result in emergent phenomena at the system level, that is, phenomena that are neither intended nor predicted by the individuals*" (Coleman, 1990: 5). What is not completely clear, however, is whether Coleman considers the mechanisms leading to the emergent phenomena as linearly causal or as emergent in the complexity sense described above. In my reading he does not see emergence in a complexity³ perspective but in a linear perspective.

Adopting a complexity perspective would be to say that there is a path between micro and macro; and that the emergent pattern is "path-dependent" (Marion, 1999), or dependent upon history. But this path may contain "bifurcations" – unpredictable jumps – or in other words: pockets of unpredictability, embedded within predictability as it were. Therefore linear causality does not apply. Two additional phenomena described by complexity theory are also important in this respect: "sensitive dependence on initial conditions" (the butterfly effect) and "resonance" between interdependent actors (Marion, 1999; Kaufmann, 1995; Holland, 1995). A detailed account is impossible here, but for the present purposes I will point out that some complexity theorists conclude that these two phenomena will render the development over time of complex interactions between interdependent actors unpredictable **in principle**

³ Complexity theories were also much more obscure 20 years, or more, ago when Coleman was writing

(Kauffmann, 1995). Applied to social phenomena this is to say that emergent patterns on the social level are “non-reducible” to events on, for instance, the individual level (Cilliers, 1998; Stewart, 1993), which would mean that a search for individual explanations, and linear causes, for social phenomena would be futile. This is consistent with Nahapiet and Ghoshal’s consistent stress on the non-reducibility and embeddedness of social capital. What it does not necessarily imply, however, is that social capital is not appropriable. The enactment of relationships between members of an organization, developed over time, could emerge as patterns also in interactive cooperation on tasks for which the organization was not originally set up. In a complexity account social capital would be portrayed as the emergent patterned interaction of individual agents. If social capital is conceived of as emergent in the complexity sense, however, it remains to be explored what the consequences and prospects are for the attempts of firms to plan the development of social capital. In a complexity perspective the prospects for designing social capital would seem to be slim because of the unpredictability I referred to, but this does not necessarily mean that planning is useless. An exploration of this issue lies beyond the scope of this paper and I will proceed to draw some conclusions in terms of the questions I posed as a starting point for the analysis of the practicality of Nahapiet and Ghoshal’s (1998) model.

Conclusion: re-turning to practice?

The preceding exploration allows me to conclude that:

1. Nahapiet and Ghoshal’s (1998) theory is not impractical in terms of obscuring processes and micro-foundations for the development of social capital but a

reductionist reading of the model may involve a risk of such obscuring. Nahapiet and Ghoshal's paper (ibid.) may be seen as somewhat ambiguous in that it presents a highly practical, situated and embedded theory of the evolution of social capital and an expository illustration of the model which sacrifices the interdependencies for the sake of exposition. The irony may be that this attempt to achieve a clearer, and perhaps more accessible explanation through sacrificing interdependency and interrelatedness, may yield the exact opposite result: an obscuring of the complexity of the very processes Nahapiet and Ghoshal so carefully point out the complexity of.

2. Nahapiet and Ghoshal provide the foundations of a framework for the development of social capital which seems well suited to the further development of a good theory in Lewin's sense of the word.

Thus I would argue that N & G's account of the development of social capital holds substantial promise for a re-turn to practice armed with the foundations of a good theory. However, I stress once again that I do not see this promise in terms of a highly precise, quantifiable and context-free definition of social capital; neither do I see the promise in proceeding with research within the framework of a reductionist reading of the model. I see the promise in terms of the embedded, evolutionary and contextualized framework they provide. I would argue that exploring the development of social capital in terms of complexity theories of the social is a promising path forward.

A contextualized and complexity informed approach to theory and research is certainly no guarantee for "an easy ride", however. One consequence of thinking in terms of complexity and embeddedness would be that the unintentional build up of social capital in one sub-unit of a firm may not at all be beneficial to the firm at large. Likewise, if the social capital of

networks with externals, like suppliers and customers, grows too strong this may impede the build-up of social capital in internal networks between units (Gooderham and Rønning, 2008).

In sum there is no doubt that a return to practice via a complexity perspective will almost certainly be messy. This is because it entails attention to particularities and detail, as well as attention to how processes evolve over time. But then, as most practitioners know, everyday organizational life is often very “messy” and the most valuable competence may be the ability to get by anyway (Shaw, 2002). Kilduff and Tsai (2003) have argued that there may be a need to search for another paradigm of research into issues related to networks, including social capital. They expect to see individual attributes assuming a more central role, and they expect to see more research of the ethnographic type (*ibid.*). Complexity theories are often mentioned as a possible new paradigm for the social sciences but I would strongly stress that the complexity sciences originated in biology and computer simulations and insights from these fields may not be transferred without reflection and modification to the social sciences (Sawyer, 2003; Stacey, 2003).

Concerning individual attributes, however, there is a considerable body of research related to individual variations in attachment behaviour, or – very broadly - the tendency to depend on and trust others. It seems that research have identified patterns which may allow for a typology to be developed (Feeney and Noller, 1996). On a speculative note; if the emergence of social capital in a complexity perspective is critically dependent on initial conditions such individual variations could certainly be relevant to Kilduff and Tsai’s (2003) suggestion. If the approach taken by Jarzabkowski’s “Strategy as Practice” (2005) heralds a new tradition in strategy research, as one reviewer claimed (Andrew Pettigrew, on jacket), it would be a tradition of strategy as a complex situated activity distributed among actors with potentially

diverse interests in a process of continual becoming, entailing managers shaping and being shaped by this activity (ibid., p. 37).

Accordingly, and based in these somewhat convergent accounts, I would argue that a practice turn in contemporary social capital theory would entail more emphasis on longitudinal studies of firms where practices and interaction is followed closely; not as a substitution for cross-sectional studies of firms but as a supplement. Wenger's (1998) and Lave and Wenger's (1991) account of situated learning and communities of practice are highly relevant in terms of providing a contextualized, situated and embedded perspective on the creation and sharing of knowledge, and also on the development of social capital. Thus, identifying and studying closely communities of practice with respect to how relationships are built and sustained would be a promising area of research. Further, Latour's account of networks related to Actor-Network-Theory would also seem to be highly relevant from a theoretical perspective (Latour, 1999) as it involves multi-causality and allows for the emergence also of individuals. All of these approaches would be broadly compatible with a complexity perspective and with Nahapiet and Ghoshal's account of the co-evolution of social and intellectual capital. They would also be highly practical.

With respect to limitations, inherent in the approach of this paper, I will say that attempting an in-depth meta-theoretical analysis of Nahapiet and Ghoshal's paper severely strains the boundaries in terms of space. The same would apply to the attempt to link Nahapiet and Ghoshal's (1998) model with complexity theories and attempting to present Coleman's (1990) framework. The consequence is that these attempts are lacking in depth. This might have been rectified by making these issues themes for two separate papers, but on the other hand it seemed necessary here to place these issues within one frame of reference. I hope, in

any event, that I have been able to point to the importance and relevance of these issues for the problem at hand. Finally, and not least important; the attempt to assess the practicality of social capital theory in terms of Nahapiet and Ghoshal's theory may have left less clarity than desired; particularly since introducing complexity theory would tend to complexify the issue, as it were. However, clarifying these issues once and for all could hardly be the aim of one paper. There will be others. What I hope I have achieved through the present "conversation" with Nahapiet and Ghoshal's account and the combination of theory from different areas, supplied by some anecdotal results from my own practice, is the emergence of some new insights, capable of affirming the foundations of a framework informing the development of social capital in my own, and perhaps others' practices. Still, I anticipate that the return to my own practice, and the question: "But how do we develop social capital?" may prove a very sobering experience, indeed.

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