

Community as a Self-referential Social System: Measuring Social Capital

Preface (This applies to Question #1 and #2)

I have taken my conceptualisation of community to what I describe as the next level of analysis within complex systems thinking. Specifically, this follows Niklas Luhmann's theory of social systems as self-referential (i.e., autopoietic). I referred to this in my Qualifying Exam Paper. Adopting more of Luhmann's theory into my own work effectively advances the conceptualisation of community from a *complex* social system to one that is more accurately described as a complex *self-referential* social system. Within each of my responses to the questions, I will refer to my conceptualisation of community as a *self-referential system*. The effect of this name change is to focus upon the particular theoretical aspect that differentiates a (complex) self-referential view from a *complex* view. This, however, does not negate my previous work; rather, it remains within the realm of complex systems thinking and builds upon it. As will be revealed in my answers, Luhmann's theory encompasses ideas not shared in other complex systems thinking about social systems. At least two aspects of Luhmann's theory serve to distinguish it. First, social systems are not living systems. Second, the elements of a social system are not people or action; the elemental unit is communication. There are other theorists who also address autopoiesis within social systems, although I have not covered any of their work at this time.

Luhmann's intent is to provide a theory of social systems that can be used to examine social phenomena, but not to examine the phenomena himself (Knodt 1995). In this, he offers very few examples of his abstract concepts and does not refer to community. Several of his concepts are important to the discussion of both questions. I have provided brief descriptions of these below, beginning with a (work-in-progress!) definition of community.

Community: (a) common ties, locality, and social interaction; (b) a system of social interaction; (c) a self-referential, meaning-processing social system of communication distinguished by a temporal-spatial dimension of local/non-local that sustains a subjective/objective construction of the member's relation to the world; (d) actualised by communicative events; (e) constituted of a concentration of interaction (systems).

Self-referential (autopoietic) social systems: (a) meaning-processing systems of communication; meaning guides the selection process of each element of communication enabling the system to make distinctions; determines for itself what is information, how it may be acted upon, and how it may be interpreted; meaning processing creates difference, difference produces additional information, which re-produces communication.

Meaning: (a) the structure of consciousness that enables humans to make certain distinctions; (b) the process that guides selection from other possibilities; (c) the medium of communication; (d) a process of selection that makes possible both the reduction and preservation of complexity; (e) the function of meaning is to give order to human experience through the intake of information and conscious processing of experience.

Communication: (a) comprised of three elements: information (a selection from the repertoire of referential possibilities), utterance (a selection from a repertoire of intentional acts), and understanding (the observation of the distinction between utterance and information); (b) actualised in the present as a communicative event.

Event: a communicative act actualised in the present.

Social structure: (a) norms, values, expectations, roles, etc.; (b) objectified possibilities, wherein meaning exists in the things themselves; (c) expectations of expectations.

Question # 1

Can social capital both assist with social development and planning, and hinder it?

Understanding of Question

Note 1. The term *social development and planning* may be interpreted in several ways. Upon doing some literature searches, I suggest that it may be approached within the context of the question above in at least three ways. First, when *social development and planning* is taken as a phrase, as a single search category, the term appears within (1) international development within the scope of poverty alleviation. I did not feel that this was directly applicable to the question as I *could* respond to the question without any reference to community or complex systems thinking. I also searched for the term *social development*. This appears to cover a continuum of development topics, from (2) children to (3) society. The former may be categorised to include the study of instruction (Bruner) and cognitive structures (Piaget). This also includes Vygotsky's theoretical development of cognition. Although based on the role of social interaction in cognitive development, most of his work applies to language learning in children. His later work is broader, however, and may include social learning (I did not explore this any further).

Within the context of society, the third category, a *theory of social development* defines the scope of the work. In particular, this defines social development as “the increasing complexity of the social organisation that enables it to release, organise and express human energies and creativity more effectively to achieve the goals of the society – regardless of whether those goals are political, economic, social or cultural” (Macfarlane 1999:1). Although this quote is from an international development agency, the literature on this third interpretation of social development appeared to be more consistent with what I would describe as *community development*. In my opinion, this third area of thinking has some very interesting correlations with my conceptualisation of community. I will not, however, examine types of consciousness or stages of cognitive development within humans or society.

Question #1. Discussion

The ‘answer’ to the Question may be very quickly summarised. At a general level, social capital (as a measure of social structure) assists social development; it makes communication easier by setting out norms, values, expectations, roles, etc.. However, at another level of analysis, social capital may be seen to hinder social development when the social structure becomes inflexible, and unable to generate new ideas (innovate) or to adapt to changes in the system’s environment. At this level of analysis, one recognises that there is an ‘optimal’ range between too much and too little social capital. However, there is not enough information about the dynamics of the system to consider what level of social capital might be better. Hence, the Question could be re-stated as: “Does the amount of social capital assist/hinder social development?”

At the next level of analysis, the Question must be refined further. In addition to the amount of social capital, the Question must also consider the quality of the structure (or organisation) of the system. Hence, the Question could be re-stated as: “Does the amount of social capital *in conjunction with* the quality of organisation of the system hinder/assist social development?” Answering this question would require a measure of social capital that captures as much of the system’s complexity as (practically) possible.

This explanation may be considered as the ‘answer’ to the Question. What remains to be discussed is what framework guides one to formulate an answer. Most of the discussion below explores what this framework would look like. Such a framework requires an understanding of social capital, social development, and planning. In addition, the question infers social development and planning *of something*. Hence, that “something” must also be defined. I interpret “something” to mean community, as I have conceptualised it. It is the conceptualisation of community as a self-referential system that will provide the context for the framework. The line of inquiry will proceed as follows.

- 1.0 First, I will set out an understanding of social development (see Note 1, above).
I will then situate social development within my understanding of society as a self-referential system, as there are aspects of social development that appear in

the literature that contradict my conceptualisation of community. The contradictions render any mix of non-self-referential (conventional) understandings and self-referential understandings of social development or community meaningless. A conventional (or self-referential) understanding of one should only be applied to a conventional (or self-referential) understanding of the other. Within this section I will discuss how the principles and key concepts of social development may be re-formulated within a theory of self-referential social systems.

- 2.0 Social capital must also be situated within a self-referential framework. As will be discussed, many aspects of existing definitions and measurements of social capital remain applicable for my conceptualisation of community. Within this section I will discuss how social capital may be formulated within a theory of self-referential systems. Having set out a framework for answering the question, I will then address whether or not social capital assists or hinders social development (of self-referential community systems) in conjunction with a discussion of how it might be measured and applied.
- 3.0 I will reflect upon planning as a way of concluding.

1.0 Social development of self-referential systems

A 'conventional' (i.e., non-self-referential) understanding of social development is presented first. I will then address specific points within this understanding that are not consistent within a self-referential approach to social systems. This will lend itself to an alternative conceptualisation of social development.

1.1 'Conventional' view of social development

Several questions are central to social development, each focusing upon the role of the human being: "What is the essential nature of human development? By what process does it occur? What force accomplishes it? What factors propel and retard it? What conditions are essential or detrimental to it? Through what stages or phases does it pass?"

What is the source of the problems and failures that it generates?" (ICPD 1998). These may be considered as the enduring questions within this theoretical framework.

1.1.1. The meaning of 'social'

Macfarlane (1999:1) defines social development "as the increasing complexity of the social organization that enables it to release, organise and express human energies and creativity more effectively to achieve the goals of the society – regardless of whether those goals are political, economic, social or cultural." According to Macfarlane, the focus of development should be on "the internal consciousness and capacities of human beings" which, I infer, is what is meant by *social* within 'social development.'

1.1.2 The mode of operation/production

Human motivation and action are at the center of development; all aspects of development are the perspective of and in relation to human beings (Jacobs and Cleveland 1999); the hierarchy of social organisation rises from individual human acts (ICPD 1998).

1.1.3 Consciousness

Internal consciousness emphasises a learning process that creates social organisation, including social systems (Jacobs and Cleveland 1999). This process is continuous, learning from past experiences and then applying that learning in new activities. Social development is a progressive organisation of social existence, which is the essential character of development; it makes possible progressively higher levels of organisation (ICPD 1998).

1.1.4 Evolution of social organisation

Social development parallels biological development. That is, the evolution of society follows the same principles as the process of development from the atom and molecule to living cell and differentiated organs (ICPD 1998). Differentiated systems join together to create a higher level of complexity (Cleveland and Jacobs 1999). As such, "the evolution of larger, more complex social organisations occurs on the foundation of lower levels of organisation that serve as essential infrastructure for their emergence" (ICPD 1998:5).

1.1.5 Social differentiation

Social organisation evolves from primitive (bound to land; rigid; resistant to change; limited range of survival activities) to more mobile, more inventive, more flexible and adaptive, with more structures and a greater capacity for change. And on to states of higher mental attributes, such as science and education; competition matures into co-operation; surplus energy abounds to form “ever newer, more complex forms of organization (ICPD 1998:6).

1.1.6 Pattern of organisation

The social forms created as a process that parallels biological evolution are constituted as patterns of human activities, rather than patterns of material substances (ICPD 1998).

1.1.7 The social ‘force’

Energy is the ‘force’ responsible for social development. This, however, is not energy derived from material substances (e.g., light from the sun), but the “subjective human energy that comes from people, the collective energy of human aspirations in society” (ICPD 1998:2). This is also described as the psychological energy that is released for development of society by social processes. This includes the opinions, attitudes, beliefs, convictions, motives and values that direct individual and collective social activities. It is the surplus of this energy that is essential to social development (ICPD 1998).

1.2 *Self-referential conception of social development*

A self-referential conception of social development attempts to answer the same (or similar) enduring questions as the conventional approach outlined above. I would argue that, on this basis, it may be presented as one particular theory of social development. In particular, three aspects of Luhmann’s theory of social systems serve to distinguish it (Luhmann 1995). (1) There is no central body or organising force, therefore, there is no ‘subject.’ (2) Communication is the elemental unit in a social system, not action or human beings. (3) Social systems are not living systems; they are distinct from the psychic (conscious) and bodily (life) systems of humans. The following accounts for

how the self-referential theory of social development differs from the above
'conventional' theory. Each point will be addressed.

1.2.1 The meaning of 'social'

There is some overlap between the two approaches, and the difference may not be considered important *prima facie*. Although consciousness of human beings is the operative element of the psychic system, not the social system, the two systems are interdependent. A self-referential social system reproduces communication, which is comprised of information, utterance, and understanding. Meaning is the medium that brings consciousness and communication together. Thus, *social* development cannot refer to consciousness; it must refer to communication, and understood as the development of structures facilitating communication.

1.2.2 The mode of operation/production

Communication is the mode of reproduction in a self-referential social system, not action or human beings. Therefore, all aspects of social development are the perspective of and in relation to the processing of information through meaning.

1.2.3 Consciousness

Consciousness (thought) is the mode of self-reproduction of the psychic system. Because the psychic system and social system are interdependent, consciousness, communication, and learning are all actualised through meaning and may be considered inseparable. A self-referential social system learns from past experiences and then applies that learning in new communication. The "progressive organisation of social existence" develops within the social system (communication), but cannot be accomplished without consciousness.

1.2.4 Evolution of social organisation

Evolution of self-referential systems is a process of increasing complexity.¹ The structural changes of one system increase the complexity of the environment for other systems, and these may or may not react by adapting. It is the processing of

¹ Luhmann admits that his theory offers no explanation for the beginnings of evolution and only a little about individual historical sequences (Luhmann 1990:67).

meaning within each system (and between interdependent systems) that enables evolution (Luhmann 1990:67). Although Luhmann does not extend his explanation of evolution beyond this, new elemental units may emerge from the interpenetration of systems (e.g., organic-psychic of human beings). On this basis, one could develop a case for parallels between the evolution of biological and social systems, but in self-referential terms. Self-referential systems evolve from the whole, e.g., society (Luhmann 1995) to sub-systems, e.g., community.

1.2.5 Social differentiation

According to Luhmann: society has evolved through three forms of differentiation: segmentation (identical sub-systems, e.g., villages); stratification (societal hierarchy, e.g., nobility and peasants); and, functional (particular tasks, e.g., law, politics, economy). As a result, “society no longer has a center or controlling sub-system, but becomes the indeterminate outcome of the interactions among these independent but interdependent domains” (Mingers 1995:141).

1.2.6 Pattern of organisation

Patterns of organisation within social systems are patterns of communication, constituted as events, interactions, and structure (e.g., norms, values, expectations).

1.2.7 The social ‘force’

The ‘force’ responsible for social development is meaning. Meaning makes possible the “conscious grasp and reduction of high complexity”. It does this by giving order to human experience through the intake of information and conscious processing of experience (Luhmann 1990:43-44). The ‘energy’ for meaning processing is information. A system far from equilibrium has available to it a constant flow of information; this is the essential condition for social development. Meaning is ‘stored’ as social structure, such as expectations, that facilitate communication.

At a general level of inquiry, the self-referential view of social development is not substantially different from the conventional view. However, the differences in the

details, I suggest, are significant if one wishes to analyse social development with regard to social capital. Most importantly, all aspects of development being in the perspective of, and in relation to, the processing of information through meaning demands careful attention, as will be revealed in the discussion that follows.

In a self-referential social system, communication is comprised of three elements: information (a selection from the repertoire of referential possibilities), utterance (a selection from a repertoire of intentional acts), and understanding (the observation of the distinction between utterance and information) (Knodt 1995:xxvii). The medium of communication is meaning. With every communicative act a process of making sense of complexity (the necessity of choosing) takes place. Each selection, i.e., choice among the horizon of possibilities, also implies contingency, the necessity of accepting risks (Luhmann 1990:26). A special characteristic of this process is that, through the selection process, the world of complexity is preserved (rather than discarded); that is, every selection is both a reduction and preservation of complexity. In essence, meaning provides “a form of selection that prevents the world from shrinking down to just one particular content of consciousness” (Luhmann 1990:27). Meaning, however is both constrained and facilitated by social structures, such as expectations, norms, values, roles, codes, themes, and obligations. Structure is the accumulation of history or knowledge that can be uncovered in the future that functions as a constraint on possibilities. Stated differently, structure “consists in *how permissible relations are constrained within the system*” (Luhmann 1995:283), that is, structure provides an “internal guidance” in making decisions. This is the understanding of *meaning* within a self-referential system and the role of structure as it pertains to meaning.

2.0 Social capital and self-referential systems

An understanding of social capital is also influenced by differences that arise from the self-referential view of community. This difficulty, however, is added on to the application of social capital that already demands caution (Wall et al. 1998).

2.1 As wealth to be used for production.

According to Wall et al. (1998:304), the understanding of social capital within the mainstream of North American sociology is “the mutual relations, interactions, and networks that emerge among human groups, as well as the level of trust (seen as the outcome of obligations and norms which adhere to the social structure) found within a particular group or community.” This understanding will also apply to studying the social capital of self-referential systems. This understanding of social capital is a starting point for the discussion. However, further clarification is needed before it can be used as an analytical framework.

The way social capital is used depends upon the meaning adopted. For example, social capital has come to mean the ability to create and sustain voluntary associations (Portes and Landolt 1996) as well as “the glue that holds them together” (World Bank 1999a). Within the self-referential framework, I define social capital as *a measure of the social structure of a social system*. The focus upon structure derives from the definition of *capital*: “any form of wealth employed or capable of being employed in the production of more wealth” (Random House 1996:309). In social systems, “wealth” is anything that helps the system reproduce communication. Since the purpose of structure (such as expectations, norms, values, roles, codes, themes, obligations, etc.) is to make communication easier, structure is the “capital” capable of producing more wealth (communication). This emphasis upon production of wealth is consistent with (conventional) social development, wherein productive societies generate wealth from which the organisation of social forms is created (ICPD 1998).

Relative to other concepts of social capital, the self-referential view is similar in its focus upon norms and values. (It may also include networks and interactions, insofar as these may be constituted as structure.) In particular, self-referential social capital is similar to Coleman’s explanation that social capital “inheres in the structure of relations between and among actors” and made up of obligations and expectations, information channels, and a set of norms and effective sanctions that constrains and or encourages certain kinds of behaviour (cited in Wall et al. 1998:308).

Where this view of social capital differs, however, is in the way social capital is deemed productive. Other approaches to social capital used in the social sciences may be

classified into three distinct groups: strategies for maintaining or changing one's position in a hierarchical social structure, an implicit connection to economic rationality and human capital, and civic responsibility (Wall et al. 1998:306). As stated above, the productive attribute of social capital that resides in social structure of self-referential systems lies in its capacity to facilitate communications.

2.2 Social capital and social development

Common sense suggests that the higher the amount of social capital structure, the greater the level of social structure (the accumulation of history or knowledge that functions as a constraint on possibilities) available to the system to process information (i.e., to further develop). This quick assessment is misleading however because of the paradoxical nature of complex systems. Complex systems are systems poised at the "edge of chaos," an optimal state between too much structure (i.e., too much order or constraints to make sense of complexity, threatening stagnation) and not enough structure (i.e., not enough internal guidance or constraints to deal with complexity, threatening disintegration). Thus, the Question would be more appropriately stated as: "Does the *amount of* social capital hinder and assist social development?" This is consistent with how I have defined social capital as a *measure of* social structure.

Through the self-referential process, social structure serves to both guide and constrain possibilities; there is a trade off between the possibilities available and the risk associated with each selection. This leads to the paradox. The process of selection guided by social structure leads to increased complexity by supporting innovation; the better the guidance, the better the selection. At the same time, the history of past selections, of past reductions of complexity, leads to an increase in social structure. As such, social structure is required to both increase complexity and to reduce complexity. At the edge of chaos, there is a dynamic balance such that the system remains vital. Luhmann (1990:49) describes this as the "regulative premise for conducting our experience."

Based on this elaboration, what is needed (at least as the next step) is a better understanding of the organisational structure of the system itself in order to determine

whether or not more social structure would assist/hinder development. This, to some extent, is more easily explained within the context of community. In the meantime, this is where the Question needs to be revised again: “Does the amount of social capital *in conjunction with* the quality of organisation of the system hinder or assist social development?”

2.3 Social capital and development of self-referential community systems

Placing the discussion within the context of community offers one particular advantage for furthering the discussion. That is, it refines the purpose of social development to improve the functioning of the community system. But what are the functions of community?

It is within the context of functions that the social development literature and the theory of self-referential social systems share a common basis. The discussion of social functions illustrates how the broader conception of social development (see Note 1) shows signs of overlap. Jacobs and Cleveland (1997) state that social development functions as a process of self-conception through awareness, aspirations, attitudes and values. In their explanation, they make a distinction between the collective conscious (society) and the individual conscious. Society is a subconscious living organism that “evolves a conception of what it wants to become and ... seeks to transform its conception into social reality” (7). Individuals express conscious intention in their words and acts, “but these are only surface expressions of deeper subconscious drives that move the society-at-large” (7). The consciousness of society is not the sum of its individual parts. It acquires its own identifiable character and personality but has no direct means to give conscious expression to its subconscious collective aspirations and urges (Jacobs and Cleveland 1999).

The theory of self-referential social systems provides a theoretical understanding of how this process of social development may be operationalised. However, as noted above in section 1.0, several changes must be made to conceive of self-referential social development. To emphasise, the social system operates through the reproduction of

communication; the psychic system operates through the reproduction of consciousness (thoughts). The two are interdependent; it is through interpenetration of the systems that identity is formed, wherein identity may be seen as the “enduring nature of consciousness with respect to time” (Luhmann 1990:43). Within a complex world, it is not possible to process all possibilities. At some point, subjective reality must be changeable into objective reality in order to reduce complexity. In other words, “possibility must be objectified, i.e., it must be seen in the things themselves” (35). This is accomplished by means of *identification*. Meaning may then be referred to as a balance between the subjective and objective reality; a balance between reducing complexity and preserving it from which self-conception emerges. In a self-referential system the individual and the collective is not a dichotomy, but a duality (Luhmann 1995). This also explains how social structure takes ‘shape’ in a self-referential system. Social development of a self-referential system may be re-stated as the system’s ability to process the meaning of complexity to further its own self-conception. The primary function of a self-referential meaning system, then, is to make sense of the world. Within the community system, this function is further refined to *identifying* one’s place in society. This perspective is reflected in community theory. According to Konig (1968:4), community “is that point at which society as a whole, as a highly complex phenomenon, is directly tangible, whereas without exception all other forms of society rapidly become abstract and are never so directly experienced as in the community.”

The function of community may be understood within the context of social evolution. Community systems, I will argue, emerge as a particular type of sub-system through the evolutionary process of differentiation. The basis for this internal differentiation, according to Mingers (1995:146-7), is a binary code (good/bad or positive/negative) that denotes ‘membership’ for that sub-system. For example, the code for the law is legal/illegal, for the economy to pay/not to pay, for science truth/falsity, for politics the holding/not holding of office. And within my conceptualisation of community, I posit that the binary code for community is local/not local. Local identity becomes embedded within a community’s regulative structure. To use the terms introduced above, local is *identified* to facilitate communication by introducing local/not local code and thereby limiting the horizon of possibilities when people interact.

Labeling community (as local/not local) serves to reduce complexity; it is a way to make information processing easier and to make meaning of the social world around us. The emergence of community systems arose from the necessity to reduce complexity. The function of community carries on as a process of self-conception, i.e., identification of locality.

To extend this theory further, the identification of locality within community is reproduced so long as it remains useful, that is, so long as it facilitates communication. It is this aspect of autopoiesis within a meaning-processing social system (in co-evolution with the psychic system) that contributes to a sense of belonging and trust. Social capital refers to the social structure that takes shape within this process. The identity of community is one form of social capital.

Developing social capital as a measure depends upon what it means, as outlined above, and upon the level of analysis (Wall et al. 1998:318). Thus far, social capital has been measured at the region, community, family, and individual levels (Wall et al. 1998:314). The primary difficulty in developing the measure is the inherent complexity of a society that is becoming more internally differentiated, bringing a greater amount of structure to bear and a corresponding difficulty in processing information (Luhmann 1995).

A social capital measure of community needs to capture those factors that (1) support community functions, and especially self-conception, in conjunction with (2) an assessment of the internal complexity of the social structure. The latter attempts to ascertain whether the community is operating at the 'edge of chaos'. Although no existing measures are adequate for the second task, there are existing options to build upon. Roland Warren's locality-relevant functions (1978:170-212): production-distribution-consumption; socialization; social control; social participation; and, mutual support, illustrate possible measures of a functional dimension of social structure. Each function may be re-stated within the terms presented within this discussion. For example, the production-consumption-distribution function may be seen as the production of communication (rather than material goods and services).

Other aspects of the complexity of social structure are already embraced within applications of social capital. For example, the World Bank (1999) includes vertical as

well as horizontal associations between people, and includes behavior within and among organisations. Their aim is to include factors that integrate common purposes and a sense of identity, as well as account for isolated interests and poor access to information and material resources. Potapchuk et al. (1997) describe a 'ladder of community building'. This includes individual social interactions (e.g., bonds among individuals), and interaction between groups and individuals, interactions between organizations and groups (e.g., community organizations). It also includes factors that account for the structure (e.g., formal or informal) and function of organisations (e.g., internal or external focussed, providing services, planning), as well as strong and weak ties, and strength and density of network relations.

This combination of factors only begins to reveal the complexity of the community system. Social entropy is an emerging body of work that may contribute to the task of attempting to measure the level of complexity (Bailey 1990). According to Bailey, a measure of entropy uses both theoretical and statistical interpretations to assess system structure. Premised upon the assumption that the measure of the system as a whole is important, the aim is to assess the system's state of organisation (or lack of). A construct of relational space (see Question #2) may also lend itself to assessing the state of the community's system. The premise of relational space is to assess the behaviour and familiarity of interactions.

All these measures, however, may still not provide an indication as to whether or not more or less social structure assist/hinder social development.

3.0 Social Planning

Planning may be understood in a variety of contexts (Friedman 1987). Social planning, as a form of planning, also includes different contexts, e.g., as a scientific endeavour, as an instrument for economic growth, as a strategy for maximizing participation, and as an instrument of empowerment (i.e., social mobilisation) (Friedman 1987:7-8).

Social planning presented within the context of self-referential community systems is about facilitating the communication process. As such, planning plays a role

in 'managing' the relationship between social structure and the increasing complexity of the system's environment. Without a corresponding increase in social structure, the ability of a system to process information declines. Social planning has a role to play in building some of this structure, what Luhmann (1990:33) would describe as "institutional countermeasures." This could be in the form of communication plans and delivery systems for mass communication. In these forms, social planning is not about predicting the future, as it is about managing the balance between the reduction of complexity and preservation; between social structure and an increasingly complex world.

'Answer'

Does social capital assist/hinder social development? Assists.

Does the amount of social capital assist/hinder social development? Assists and hinders.

Does the amount of social capital in conjunction with the quality of organisation of the system assist/hinder social development? Yes, but don't know why.

The 'answer' to the question appears to become more determinate with each re-statement of the Question. There is little doubt that the amount of social capital affects social development when considered in conjunction with the quality of structure. However, the meaning of the answer becomes less determinate. Through the discussion above, I have looked at three components that constitute the Question, namely, social capital and social structure within the context of community. As I refined the meaning of each term, the possible interdependencies between terms increased. To address this I restricted social capital to being a measure of social structure. This demands other ways to incorporate this measure into further analyses, rather than re-inventing the term to account for alternative perspectives.

To clarify this distinction between social capital as a measure and its subsequent analysis, I will relate this situation to a business environment. In business, they have a simpler understanding of capital as it pertains to wealth. They also have a number of approaches to analyse capital. For example, they have a formula for *working capital* that is incorporated into additional formulae. This analogy, however, brings to the surface an issue about unit of measurement. In the business world capital may be measured in

dollars. There is no (or may not be) a corresponding unit of measure for social structure (e.g., how does one measure norms and values?). This limits the usefulness of social capital as a measure.

Another issue that arises in conjunction with a refinement of social capital as a measure is the construction of an analytical framework. This has been the focus of most of the discussion so far. The difficulty I introduced was the attempt to incorporate dimensions of complexity into the framework. The first step might be to focus on social structure in terms of organisations and stratifications, as many attempts to apply social capital already do (see above). The next step might be to conceive of relational aspects of social structure that reflect the behaviour of the community system. This latter aspect is explored in my discussion of Question 2.