

Given the relative differences in the conceptualization of social capital, a trajectory of the ideas comprised in its current discourse is best done following the main thinkers of the concept. Table 1 presents 17 definitions of social capital from a number of authors. (Coleman, 1990; Bourdieu, 1983; Loury, 1992; Putnam et al., 1993; Portes & Sensenbrenner, 1993; Burt, 1992; Fukuyama, 1995; Edwards, 1997; Woolcock, 1998; Midgley & Livermore, 1998; Paxton,

1999; Narayan, 1999). This should be of practical help while we trace the historical background, the different ideas embedded in the conceptualizations, the fields of scholarship and the ideological context of social capital. For the purpose of comprehensiveness, the table also includes authors who have introduced distinct definitions that have supplemented the primary concepts (see Table I).

Table I

<i>James Coleman (1990) (1988).</i>
Social capital is a variety of different entities having two characteristics in common: they all consist of some aspect of a social structure and they facilitate certain actions of individuals who are within the structure. Social capital inheres in the structure or relations between persons and among persons. It is lodged neither in individuals nor in physical implements of production. Two elements are critical to social capital: the level of trustworthiness of the social environment, which means that obligations will be repaid, and the actual extent of obligations held. Social structures differ in both of these dimensions, and actors within a particular structure differ in the second. As an attribute of the social structure in which a person is embedded, social capital is not the private property of any of the persons who benefit from it.
<i>Pierre Bourdieu (1983).</i>
Social capital is the aggregate of the actual or potential resources which are linked to possession of a durable network of more or less institutionalized relationships of mutual acquaintance and recognition – i.e., membership in a group which provides each of its members with the backing of the collectivity-owned capital, a “credential” which entitles them to credit, in the various senses of the word. These relationships may exist only in the practical state, in material and/or symbolic exchanges which help to maintain them. They may also be socially instituted and guaranteed by the application of a common name (the name of a family, a class, a tribe, a school, a party, etc.) and by a whole set of instituting acts.
<i>Glenn Loury (1992).</i>
“Now consider all of these processes associated with naturally occurring social relationships among persons, which promote or assist the acquisition of skills and traits valued in the market place. They constitute of an economic resource which I have called social capital, an asset which may be as significant as financial bequests in accounting for the maintenance of inequality in our society, especially inequality between ethnic groups.”
<i>Robert Putnam (Putnam et al., 1993) (Putnam, 1993).</i>
Social capital refers to features of social organization, such as trust, norms and networks, that can improve the efficiency of society by facilitating coordinated actions.
<i>Alejandro Portes (1995).</i>
Social capital is the ability to command scarce resources by virtue of membership in networks or broader social structures.
<i>Ronald Burt (1992).</i>
Social capital is at once the resources that contacts hold and the structure of contacts in a network. The first term describes whom you reach. The second describes how you reach.
<i>Francis Fukuyama (1995).</i>
Social capital is the component of human capital that allows members of a given society to trust one another and cooperate in the formation of new groups and associations.
<i>The World Bank (Edwards, 1997).</i>
The World Bank’s working definition: Social capital refers to the “glue” that holds societies together, being a composite of social networks and institutions, social norms (such as co-operation), and social values or attributes (especially trust).



trust). In this sense, it seems to relate to the importance of shared values and a social contract already highlighted by Rousseau (1993). Weber (1930) also emphasized the importance of trust, which according to him, grew out of religious habit. For example, the early puritans developed shared values that glorified hard work, thrift and honesty. According to Minkoff (1997), most discussions of civil society and social capital emphasize their local dimensions, drawing attention to the sustenance and growth of face-to-face social networks, voluntary associations and community institutions. Putnam argues that civil society is the main arena for producing the norms of trust and reciprocity that undergird civility, civic participation and (a liberal vision of) democracy. National social movements, however, (according to Putnam) lack the same social capital-generating qualities. Berman (1997) argues that current enthusiasm for civil society holds that political development is a function of societal and cultural factors, and de Tocqueville is seen as the guiding light of political analysis. The author contends that the study of societal and cultural factors needs to be married to the study of political institutions.

We can now return to the division among scholars who have a narrow or broader understanding of the arena of civil society. A central idea shared by the two main thinkers of social capital, Coleman and Bourdieu, was the need to integrate sociological and economic thinking to account for the structure and function of the social world. However, Putnam's development appears to have taken a "Tocquevillian" road (to be fair to de Tocqueville, the adjectivization of his name has the purpose of denotation, not of adequately describing his thinking²) whereas social capital is the "glue" of a civil society that does not clearly encompass both economic and political forces. Civil society, and consequently the "arena" of social capital, appears to be limited to face-to-face social networks, voluntary associations and community institutions. In our interpretation, this is not what Bourdieu and Coleman had in mind. In this sense, Portes (1995) is more consistent with their ideas when he inscribes the concept of social capital under the discipline of economic sociology, or what Woolcock (1998a) describes as "new economic sociology." The latter writer states that "the new economic sociology" – as opposed to the "old economic sociology" characterized by Talcott Parsons and Neil Smelser (1956), "is less deferential to formal economics, seeing little distinction between exchange that is otherwise deemed 'economic' or 'social'" (Woolcock, 1998a, p. 191). A central theme of Woolcock's development of social capital within the field of new economic sociology is that the latter is a field that seeks

to position itself between the traditional "oversocialized" and "undersocialized" approaches to understanding economic behaviour. This notion was introduced by Granovetter (1985), who further argued that all economic action was inherently enmeshed in social relations of one configuration or another. Consequently, it allows the analyst to overcome shortcomings of orthodox economics, which in the words of Bourdieu (Bourdieu & Wacquant, 1992, p. 119) "overlooks the fact that practices may have principles other than mechanical causes or the conscious intention to maximize one's utility and yet obey an immanent economic logic."

The statements of the following two authors help clarify the scope of the arena. Evans (1996) argues that social capital "inheres not just in civil society, but in an enduring set of relationships that span the public-private divide... it is social capital built in the interstices between state and society that keeps [economic] growth on track" (p. 1122). He is clearly arguing for a broader scope of the arena. Edwards (1997), on the other hand is somewhat ambiguous in his call for a broader scope. The author understands civil society as the space where the common goals, product of social capital, are formed and debated. He then adds "completing these visions... involves the state and the market too, but they are the servants of a true civil society and not its masters" (p. 11).

Putnam, in another sense to the above review, actually extends the notion of social capital when he postulates it as a "feature of social organizations." This refers to ideas behind the societal "levels" of social capital (which is different from the "arena"). Let us visit other authors for this discussion. Portes and Landolt (1996) argue that Coleman's concept of social capital has been stretched in questionable ways. Specifically, "in Putnam's hands, social capital has become a property of groups and even nations, rather than individuals" (Portes & Landolt, 1996, p. 18). We will then first explore the ideas behind Portes' understanding of the concept. Portes and Sensenbrenner (1993) contend that there are four different types of social capital corresponding to each of the major theoretical traditions. They argue that from Marx and Engels we can extract the notion of "bounded solidarity," i.e., adverse circumstances can act as a source of group cohesion. As well, that from Simmel we learn of "reciprocity transactions," the norms and obligations that emerge through personalized networks of exchange (e.g., favours between neighbours). Portes and Sensenbrenner (1993) explain that Durkheim and Parsons discuss the importance of "value introjections," the idea that values, moral imperatives and commitments precede contractual relations and inform individual goals other than the strictly instrumental. Finally, they argue that from Weber we discern



the idea of “enforceable trust,” that formal institutions and particularistic group settings use different mechanisms for ensuring compliance with agreed-upon rules of conduct –the former (e.g., bureaucracies) using legal/rational mechanisms, the latter (e.g., families) substantive/social ones. The societal levels of social capital aspects in the above review explains why Portes (1998) is uncomfortable with Putnam’s “stretch” in equating “social capital” with the level of ‘civiness’ in communities such as towns, cities or even entire countries. In his understanding, sociological analyses of social capital “have been grounded on relationships between actors or between an individual actor and a group” (p. 18). Sampson and colleagues (1999) exemplify empirical research that coincides with Portes in considering social capital as pertinent to the micro level (e.g., neighbourhood), and not at a more macro level.

Contrarily, Fukuyama (1995), whose notion of social capital centres on the trust component, talks about nations with “healthy endowments of social capital” and of “low-trust countries.” Arguably, Fukuyama’s understanding of the concept is at a macro level (although not exclusively). Quigley (1996) contends that both Fukuyama and Putnam demonstrate that social capital, especially trust, is accumulated through a time-consuming, primarily local process. Nonetheless, both tend to utilize social capital as a macrosociological phenomenon or a feature of society. On the other hand, Midgley and Livermore’s (1998) understanding of social capital as social infrastructure relates more to the micro level. Their conceptualization appears to be related to ideas such as that of community assets (Sherraden, 1991; McKnight, 1995a), spirit of community (Etzioni, 1993), community regeneration, and community power (McKnight, 1987; McKnight, 1995).

Woolcock (1998a; 1998b) is the author that most systematically integrates a broad “arena” as envisioned by Coleman and Bourdieu, while including the possibility of studying social capital at different societal levels, in line with Putnam’s submission. Woolcock seeks to apply the concept of social capital to the analysis of national and community development in Third World countries. He argues that any synthesis of social capital as it has developed at the micro and macro levels may have to integrate distinct forms. Recently, several scholars introduced terminology that reflects distinct dimensions (World Bank, 2000), bonding, bridging, and linking social capital. These developments signal the need to pursue the issue of dimensions of social capital, where both the arena and the levels are accounted for. The distinction between bonding, bridging and linking social capital (Woolcock, 1999; Narayan, 1999; Woolcock &

Narayan, 2000) has been incorporated in many of the more recent conceptual developments.

In summary, social capital, to the extent that it is a property of the social environment, takes the form of a relational resource. A common understanding amongst most authors is that social capital is a resource composed of a variety of elements, most notably social networks, social norms and values, trust, and shared resources (Bourdieu & Wacquant, 1992; Bourdieu, 1983; Loury, 1992; Putnam et al., 1993; Putnam, 2000; Woolcock, 1998b; Woolcock, 1998a; Woolcock & Narayan, 2000; Narayan, 1999; Schuller et al., 2000; Lin, 2001). Its function appears to be related to the enabling of some societal good within the boundary of that specific societal level (Coleman 1988; 1990). It is mostly considered an aggregate feature that can aid in the characterization of a social system. For Bourdieu, (1983), social capital relates to actual or potential resources within a social structure that collectively supports each of its members, and is linked to the possession of a durable network of relationships of mutual acquaintance and recognition.

Areas of study where the notion of social capital has been applied to

Among the main areas in which the concept of social capital has been applied to are: community governance and political participation; knowledge and innovation; firms; labour markets; public services and the welfare state; education; and health. Although many more could be included, this list alone helps capture the variety and extent of fields. Given the striking expansion of the use of social capital in numerous areas of study, this review does not seek to be detailed nor comprehensive. What follows is a brief examination of some representative studies that exemplify the use of social capital in distinct fields.

In particular, social capital has been studied in relation to education (Munn, 2000), immigration (Portes, 1995), local economic development (Midgley & Livermore, 1998), microfinance (Rankin, 2002), sustainable community development (Dale, 2005), economic performance (Casey & Christ, 2005), health (Kawachi et al., 1997; Gooden, 1998; Veenstra, 2000; Rose, 2000b; Campbell et al., 2002; Bolin et al., 2003), identity, transition to work (Fevre, 2000), and information and communication technology (Huysman & Wulf, 2004; Norris, 2003; Steinmueller, 2004), among numerous other fields.

In relation to education, social capital has been examined for its link to educational achievement (grades and test scores), educational attainment (graduation and



college enrollment), and psychosocial factors that affect educational development (engagement, motivation and self-concept). For instance, the notion of social capital has been used to understand school practices particularly those aimed at tackling social exclusion (Munn, 2000). Findings from this particular study suggested that if schools are aware of the advantage which social capital confers on middle- and upper-class children, then schools can compensate for this by developing their own support mechanisms to help poor children achieve.

Among the literature of successful rural development is a study of six localities in the Ecuadorian and Bolivian Andes, four of which were characterized by a successful sustainable intensification of rural land use and livelihoods (Bebbington, 1997). Dimensions of social capital, such as organizations and networks, were deemed to play a critical role in helping these localities renegotiate relationships with the market, state and other civil society factors.

A more recent study on regional economic development suggested that social capital helps explain regional differences in economic development (Rutten & Boekema, 2007). The case study demonstrated that technology is a necessary but not sufficient condition for regional economic development. Also, that regional social capital originates from the embeddedness of firms in regional webs of social relations, and the norms, values and customs of these networks facilitate collaboration for mutual benefit.

Studies specific to social capital and information and communication technology (ICT) have begun to appear. A recently published multidisciplinary volume (Huysman & Wulf, 2004) compiled a series of articles that examined this relationship from the fields of computer sciences, sociology, communication studies, business economics, and management studies. One of these papers (Quan-Haase & Wellman, 2004) argued that the effects of the internet on social capital can be conceptualized from three broad approaches. First, “the internet transforms social capital” meaning that it leads to major transformations in social contact and civic involvement away from local and group-based solidarities, and toward more spatially dispersed and sparsely knit interest-based social networks (Barlow et al., 1995; Wellman et al., 2001). Second, “the internet diminishes social capital” through its entertainment and information capabilities it draws people away from family and friends (Nie 2001; Nie et al., 2002). Third, “the internet supplements social capital” because as another means of communication it facilitates existing social relationships as well as helps build patterns of civic engagement and socialization (Quan-Haase & Wellman, 2002; Chen et al., 2002). Among the initial studies that had specifically looked

at the impact of ICT on social capital, one of them (Norris, 2003) concluded that the internet seems to widen the experience of community and the other (Steinmueller, 2004), that social networks are influenced by (and influence) ICTs.

The health field has been particularly prolific in studying social capital and its potential relationship with health and well-being. Early empirical research into the association between social capital and health were those of Kawachi and colleagues (1997), Gooden (1998), Kennedy and colleagues (1998), Wilkinson and colleagues (1998), Veenstra (2000), Rose (2000b), Subramanian et al. (2001), Veenstra (2002), Campbell and colleagues (2002), and Gold and colleagues (2002). The results of these empirical inquiries provided some support for considering social capital as a health determinant. However, both conceptual and measurement issues hindered the strength of the findings. As Muntaner and colleagues (2000) indicate, the evidence is scant or ambiguous depending on the definition that is used.

More recent developments have studied social capital as a factor related to access to health care (Hendryx et al., 2002) and as a requirement for health promotion programs (Clutterbuck, 2001; Sapag & Kawachi 2007). Other studies have looked at social capital in relation to improved self-rated health (Sirven, 2006), as a predictor of coronary heart disease (Sundquist et al., 2006), as associated with population health (Folland, 2007), adult health (Carpiano 2007), mental health (de Silva et al., 2007), and enhanced health and well-being (Yip et al., 2007) to mention a few.

The above review suggests that social capital has been increasingly used to seek understanding of societal factors as they affect different outcomes of interest. As well, the impact on societies and communities of certain developments and initiatives has also been examined through the lens of social capital. Although the number of studies utilizing social capital to examine such a variety of fields is ever increasing, this should not translate into an a critical assessment of the usefulness of the concept. As the final section of this review will identify, there are valid critiques to consider.

Social Capital and Aboriginal communities

It was not until the year 2000 that research concerning social capital and Aboriginal peoples picked up pace. The First Nations Social Cohesion Project of the Population Studies Centre at the University of Western Ontario was one of the first attempts to examine social capital in First Nations communities in Canada. This group contributed several papers and pursued a research agenda to address the ways in which variations among forms of capital and cohesiveness within First Nations communities generate different



outcomes at a population level (White et al., 2000; Maxim et al., 2003). A study by Mignone and colleagues developed a conceptual framework of social capital in First Nations communities and validated a tool for its measurement (Mignone, 2003a; Mignone et al., 2004). As well, Levitte (2004) researched social capital in the context of Aboriginal economic development in Canada. Social capital has been used to analyze traditional forms of indigenous governance (Hunter, 2000; Schwab & Sutherland, 2001), sustainable development (Altman, 2001), welfare reform (Smith, 2001), and indigenous learning communities (Schwab & Sutherland, 2001). Social capital has also been used as a means to better understand the disconnect between the management of waste in nine First Nations communities in Northwest British Columbia and their traditional relationship with the land (Moody & Cordua-von Specht, 2005).

In the Aboriginal health field, First Nations planners have indicated that “analytical frameworks that attempt to associate factors such as poverty with health outcomes are insensitive to the complex socio-economic conditions that exist in First Nations communities” (O’Neil et al., 1999). In other words, there may be features of the communities, above and beyond individual level characteristics, that are impacting health, well-being and other outcomes but are not being measured by current research. In fact, an Assembly of First Nations document on holistic health policy (Reading et al., 2007) has incorporated the notion of social capital as a potential determinant of health. This also relates to what Memmott and Meltzer (2005) suggest when they state that “Indigenous people actually invest significant time and energy into building social capital, but that it often manifests in ways that are not registered in terms of ‘economic development’ or that do not match the mainstream criteria of ‘good governance.’” A clear description of Aboriginal communities that could be understood as possessing high stocks of social capital can be found in the following quote from the Royal Commission on Aboriginal Peoples. Describing Aboriginal societies of the past it states:

The economic relations embedded in traditional cultures emphasized conservation of renewable resources, limiting harvesting on the basis of need, and distributing resources equitably within the community, normally through family networks. Since families and clans owned rights to resources and since everyone was connected in a family, no one was destitute and no one was unemployed (Royal Commission on Aboriginal Peoples, 1996, p. 658).

It is under this light that the notion of social capital may be of potential usefulness if properly conceptualized for Aboriginal communities. The fact that social capital is a concept heavily embedded in cultural understandings (Brough et al., 2006) must be addressed “if it is be of value in understanding, and most importantly taking action to improve, Indigenous health status” (Baum, 2007a, p. 121). A rigorous examination of Aboriginal communities requires a historical understanding of the many factors at play. Factors that impact the well-being of populations are a result of historical socioeconomic, political and cultural forces. The history of the relations between First Nations peoples and European nations and their descendents is paradigmatic in this regard. The notion of social capital can offer a lens that takes into account these historical factors as they are embedded in current societal features, consequently having the potential to offer a richer understanding of these factors as determinants of well-being. To exemplify from a historical perspective of First Nations peoples, the loss of a significant number of population in Aboriginal communities due to disease in the early years of colonization³, the loss of traditional lands, the policies of assimilation and residential schooling, the loss of political autonomy, etcetera (Royal Commission on Aboriginal Peoples, 1996b; Dickason, 1997; Galewicz, 1997), can also be interpreted as having had a potentially negative impact on the stocks of social capital. However, this interpretation cannot be made mechanistically, because the ongoing struggles to counter these forces may also have had the potential of generating stocks of social capital. An interesting depiction of the latter is offered in an article describing the native initiative for self-government of Ka Lahui, Hawaii (Trask, 2000).

Among different fields of study, social capital in Aboriginal communities has been discussed as associated with economic development. The relationship between social capital and entrepreneurship has been explored by scholars (Portes & Landolt, 2000) who have pointed to the ability of social networks to pull together financial and other material resources for business development on the one hand, and to apply pressures on entrepreneurs on the other. Social networks have been highlighted as of importance in overcoming challenges to entrepreneurship, such as access to training, access to markets and the negotiation of community values and norms. (Levitte, 2004). Gertler and Levitte (2005) show that to be innovative and commercially successful, Canadian biotech firms must reach out to both their local and global networks to access both knowledge and capital. The same has been said of Aboriginal businesses. Woolcock (1998) asserts that strong relationships with formal institutions are instrumental in that they allow



The first level of the framework (the distinction between three dimensions of bonding, bridging and linking) captures the social reality of Aboriginal communities in terms of their intra and inter-community and institutional interactions. Social capital, understood as a relational resource, cannot truly characterize a community if it only captures community interactions. Communities do not exist in isolation and their potential stocks of social capital must express this reality because, as Woolcock (1999) indicates, “different combinations of these dimensions might yield different outcomes” (p. 7).

Does the notion of social capital include the term “social” because “capital” is collectively owned, or is it because “social” assets are constituted as “capital”? This is not a rhetorical question, it is central to the meaning of what constitutes social capital. There is a difference between capital that consists of social relations (i.e., investment in social relations) and capital that is social because it is a collective investment. The evidence backs an interpretation of social capital that would need to include both meanings. Social capital appears to be relevant both as a relational investment and as a collective asset.⁵

This three-dimensional model considers social capital as a feature of communities, with the caveat that the community of which it is a feature must be clearly delimited. Aboriginal communities in both rural and urban areas can be understood as communities of identity, of place and of interest. It is the communities themselves that implicitly or explicitly provide the delimitation. As such, this understanding of social capital is of potential use for First Nations, Métis and Inuit communities both in rural and urban settings. Ultimately, these notions of social capital relate to ideas around power relations. Bonding and bridging social capital are particularly related to the power of the collective, whereas linking social capital suggests power relations with formal institutions.

Critique of social capital

As should be expected, the notion of social capital, both as a conceptual tool and for the use it is given, is not without its critics. As Schuller and colleagues (2000) indicate, it is important “to distinguish critiques which seek to explore and develop its (social capital) potential from those which imply a rejection of the concept’s utility” (p. 23). They further state that a main criticism of the concept has been its “over-versatility” but that the criticism “relates more to the ways the concept has been applied than to its intrinsic quality” (p. 26).

Among the critics of the first type are Arrow (2000) who maintains that he finds no consensus for adding

something called “social capital” to other forms of capital, as well as Solow (2000) who indicates that so far he has “seen only vague ideas and casual empiricism” (p. 6). Both scholars argue that despite the intention of those who write and talk about social capital to get at something difficult but important, namely the interaction between society’s institutions and shared attitudes with the way the economy works, there is no value added with this conceptual tool. Fine (2000, 2001) is an author who figures prominently among those rejecting the concept’s utility. His two central arguments are that “capital” is inherently social and thus there is a redundancy in a notion such as social capital. More importantly, he argues that by trying to formulate and apply this concept, we are taking the economics out of the study of society. Fine not only sees no need for this idea, but states that the versatility suggests how the concept is serving no real purpose in social sciences.

Another author (Labonte, 1999) also points out that the concept of social capital may be just fad in social sciences. If, as Saul (1995) suggests, “fashion is merely the lowest form of ideology” (p.19), the question to answer is if this concept has brought new theoretical tools to enhance our analytical leverage and further understanding of the social environment, or is it (in Labonte’s words) a “Trojan horse” for colonization from any side of the ideological spectrum. The above review of ideas that have led to the current notion(s) of social capital, suggests that there is an element of repackaging. Notwithstanding, the same can be said of any theoretical construction. As a novelist expressed it “the present, want it or not, never ceases to agglomerate history” (Casullo, 1989)⁶. A variety of earlier ideas are present in the current formulations of social capital, of which the main ones appear to have been brought together from the need to examine society with the combined lenses of sociological and economical thinking. In this sense, Bourdieu (Bourdieu & Wacquant, 1992) insists that a general science of economy of practices “that does not limit itself to those practices that are socially recognized as economic must endeavor to grasp capital, that ‘energy of social physics’ in all of its different forms, and to uncover the laws that regulate their conversion from one to another” (p. 118).

The ideological context or purpose associated with the conceptual representations of social capital was not always apparent in the previous review section. The visibility of the ideological background increases however, when considering the use to which it appears to be put to. According to Baum (1997), a contentious area is that of the role of the state in the creation and maintenance of civil society and social capital. The author identifies two fundamentally different positions on this role: libertarian and communitarian.



Attempts to measure social capital have substantially increased in the last decade. These attempts have taken several routes, in part related to differing theoretical frameworks, in part related to the confines of existing data. What follows is a review of measures used to date and a brief critical appraisal.

Putnam (1995) considers citizen engagement in community affairs as social capital and specifies three of its features as networks, norms and trust. His measures were derived from the U.S. General Social Survey (GSS).⁷ Several epidemiological studies (Kawachi et al., 1997a; Kennedy et al., 1998; Wilkinson et al., 1998; Kawachi et al., 1999; Subramanian et al., 2001; Gold et al., 2002), have essentially followed these measurements. Narayan (1997), in a study on poverty and social capital in Tanzania, developed a Social Capital Index inspired in part by Putnam's work in Italy. The Index is an arithmetic average of both the number and characteristics of groups to which a person belongs. The survey queried household respondents about three dimensions of social capital: their membership in groups; the characteristics of those groups; and individual values and attitudes. The study does not provide reliability or validity information about the tool.

An Australian study (Bullen & Onyx, 1998) piloted a questionnaire and by using factor analytical tools sought to identify underlying dimensions of the set of questions by locating clusters of questions that were related to each other. The results suggested eight distinct elements that define social capital: participation in local community; pro-activity in social context; feelings of trust and safety; neighbourhood connections; family and friends connections; tolerance of diversity; value of life; and work connections. The study did not conduct reliability analyses. Further factor analytical analyses from samples of five Australian communities (two rural, two outer metropolitan, and one inner-city) revealed three specific factors: community participation, agency and trust (Onyx & Bullen, 2000). Veenstra (2000) explored, in a cross-sectional study, the relationships among individual-level social and human capital attributes and self-rated health status in Saskatchewan. The specific constructs of social capital chosen for the study essentially follow Putnam, although the survey contained questions specifically developed for this inquiry.⁸ In a study looking at the relationship between the civic nature of a community and effective political governance by regional health boards in Canada, Veenstra and Lomas (1999) identified three community/aggregate level constructs and two individual level constructs. The former three were: civic participation; opportunities to experience (and abilities to exploit) collaborative problem-solving; and associationalism. The latter two were: trust and commitment.⁹

Knack and Keefer (1997) identified the constructs of trust and civic norms for their cross-country investigation of possible economic payoffs of social capital. They used data from the World Values Surveys from 29 market economies.¹⁰ This study has been critiqued as an example in which single questions about trust levels are used as indices of social capital, "and then linked through sophisticated regressions to very broad measures of national economic performance, with conclusions drawn to several decimal points" (Schuller et al., 2000, p. 27). Roche (1998) investigated how neighbourhood socio-demographic attributes and extra-familial social capital modified the association between parenting and behavioural precursors to violence among adolescent males. The dimensions of social capital of this study were: organizational or institutional involvement, neighbourhood informal control and neighbourhood social cohesion.¹¹ A 1998 study (Doebler, 1998) on adolescent and young adult outcomes, delimited social capital based on two dimensions: family-based social capital and community-based social capital. The former was measured by family structure, mother working outside the home, number of siblings and family relations. The latter was measured by family mobility, church attendance, and participation in extra-curricular school activities, vocational activities and volunteer activities. Paxton (1998, 1999) explored the relationship between social capital and democratic society. The study delimited two dimensions of social capital, trust and associations. The author's model incorporates a variety of measures of group membership, friendship and trust.

A study on children who prosper in unfavourable environments (Runyan et al., 1998) provides an example of measurements of social capital without a proper construct definition. The investigators presented a broad and brief definition of social capital, "benefits that accrue from social relationships in communities and families" (p. 12) and proceeded directly to the creation of an index of social capital using scores from 0 to 5. Their indicators were: presence of two parents residing within the home; social support for the primary maternal caregiver; presence of no more than two children in the home; neighbourhood support; and attendance to church or religious services by maternal respondent. There is no clear linkage between these measures and the concept of social capital. Similarly, the measures used by Gooden (1998) in a study on social capital, stress and the health of rural African-Americans in central Virginia appear quite questionable. The study used frequency of church attendance, community organization membership, employment outside of home, marital status, and telephone in home as social capital measures.



Brehm and Rahn (1997) argued that social capital manifests itself in individuals as a tight reciprocal relationship between levels of civic engagement and interpersonal trust. These two dimensions were measured in their study using data from the GSS.¹² Buckland and Rahman (1999) considered social capital as civic engagement, and measured it by the total number of civic organizations to which households report involvement, and the total reported number of civic organizations' meetings per year.

Comprehensive undertakings related to the measurement of social capital have been the "Barometer of Social Capital" from Colombia (Sudarsky, 1999), designed to measure social capital and citizen participation, and the development and validation of a social capital inventory by Narayan and Cassidy (2001). The former study built a conceptual space to be measured, and pre-tested a questionnaire to validate its diagnostic capacities in a variety of social formations. The conceptual space was composed of ten dimensions and two main factors were isolated.¹³ The second study factor analyzed dimensions of social capital such as group characteristics, generalized norms, togetherness, everyday sociability, neighbourhood connections, volunteerism and trust.

Krishna and Shrader (1999) described the development of a Social Capital Assessment Tool (SCAT), a field-tested set of indicators and methodologies that measure levels of cognitive and structural social capital in communities designated as beneficiaries of development projects funded by the World Bank. The SCAT included three components: a community profile, a household survey and an organizational profile. Nonetheless, the researchers did not provide information related to the reliability and validity of SCAT.

Krishna (2002) later proceeded to develop locally relevant measures of social capital for Indian villages in the states of Rajasthan and Madhya Pradesh. The study distinguished structural and cognitive features of social capital, developing distinct measures for each. For the former, the indicators chosen were membership in labor-sharing groups, dealing with crop disease and dealing with natural disasters. For the latter, the indicators were trust, public spiritedness and solidarity.

A study in poor communities in Nicaragua (Mitchell & Bossert, 2006) used a similar distinction between a structural dimension and cognitive dimension of social capital in seeking to analyze measures of social capital. The study analyzed relationships between membership density, social trust and a comprehensive set of household-level social capital indicators. The structural measures were found to be more strongly associated with positive community outcomes.

Inkeles (2000) proposed four component elements of social capital at the community level, social institutions, culture patterns, modes of communication and association between individuals and between collective entities, and psychosocial characteristics of a given community or population. He suggested the development (but did not offer a precise plan) of a social capital index that would provide a single number, comparable to the Gross Domestic Product, summarizing the grand total of social capital available to any group, community, people or nation.

Rose's (2000b) study on social capital and individual health was among the few that used a special-purpose questionnaire designed to measure social capital in a multiplicity of forms, "thus avoiding the risk of 'retrofitting' social capital labels to available survey data collected for other purposes" (p. 1425). The New Russia Barometer was administered to a full-scale multi-stage randomly stratified sample covering the whole of the Russian Federation, urban and rural. 1904 Russians age 18 or over were interviewed face-to-face in 191 widely dispersed primary sampling units. The questionnaire included multiple indicators of social integration, an individual's cumulative use of networks and situation-specific networks, aside from indicators of human capital. This survey was developed drawing on the experience of six previous New Russia Barometer surveys. However, neither reliability nor validity information was reported by the study.

Other studies have developed indices of social capital at the national or sub-national levels. In the United States, The National Commission on Philanthropy and Civic Renewal (Barry & Manno, 1998) has developed a Nation's Index of Civic Engagement based on a sample of 1000 respondents. This index includes five dimensions: the giving climate, community engagement, charitable involvement, the spirit of voluntarism and active citizenship. Robert Putnam's Saguro Seminar has launched the Social Capital Community Benchmark, a comprehensive survey of social capital in the United States (Putnam, 2000).

To balance the pre-eminence of psychosocial forms of social capital, it has been advocated that social capital should be measured in terms of structural and cultural/cognitive components (Krishna & Shrader, 2000; Harpham et al., 2002; van Deth, 2003). Structural aspects of social capital refer to social structures such as networks, associations, institutions, institutionalized relations and connections. Cognitive forms relate to the more subjective or intangible elements such as trust, obligations, values, support, sharing and norms of reciprocity.



of explanation and prediction can be based on context-independent theories as they are in the natural sciences (Flyvbjerg, 2001). In relation to measurement tools, they are by necessity culturally bound. This is so because to tap into any aspect of the construct, a necessary condition is that items be relevant to respondents and that the terminology used be culturally appropriate. Interestingly enough, these issues have not received much attention in the literature on social capital.

As a general statement, it can be argued that it is more scientifically sound to commence the study of social capital within the context of the communities for which the concept will be hypothesized as a determinant of specific societal outcomes. That was the idea behind a study that developed a social capital framework for First Nations communities in Manitoba and a tool for its measurement (Mignone, 2003). Although assuming a level of universality of the concept of social capital, it sought to capture specific elements relevant to the meaning of social capital in these particular communities.

The instrument that was developed in Manitoba (Mignone et al., 2004), a survey questionnaire, was composed of three scales, each tapping into a different dimension of social capital, Bonding, Bridging, and Linking. The instrument evidenced fewer limitations for the Bonding scale and more for the Bridging and Linking scales. Within community issues (bonding) seemed to relate more to individuals' day-to-day experience, whereas intercommunity and institutional topics (bridging and linking) somewhat less. The differential rates between the Bonding scale and the other two scales were consistent with this expectation. The main consequence appeared to be that the use of individual survey data should be supplemented with other sources of evidence to improve the measurement of social capital as conceptually specified in the study. In this sense, further social capital measurement tools would benefit from the development of composite measures, where aggregate data from this questionnaire would be combined with what could be called ecological level data.¹⁵ The latter could come from two sources, from key informant surveys, and from community level data. These sources would constitute a structural scale.

The conceptual framework would again be the basis from where to develop the measures. The measurement of the Bridging and Linkage dimensions in particular would benefit from this supplementary information. Because these dimensions are about interactions with other communities and institutions, and many of these interactions are at an institutional level, individuals

involved on a more frequent basis with these issues would be particularly suited to provide this information. These key informants (e.g., band administration staff, band council, chiefs, agency staff, informal community leaders, challengers to current band officials) could be surveyed using existing and new questionnaire questions. Given that they would be surveyed based on their role, this data would be considered community level and not individual level. Albeit within another context, this idea was also introduced by other authors (Flora & Flora, 2000), who suggested the development of "group-level indicators" via questionnaires to elected and appointed officials of communities. The other source would be community level indicators. There are some examples within social capital research, as well as ideas that come from related areas of study.¹⁶ Specifically, the instrument should address the three dimensions (bonding, bridging and linking) and their respective components, and should be composed of measures derived from the aggregation of individual questionnaire scores, measures derived from key informant surveys, and measures derived strictly from community level data.

Krishna and Shrader (1999) raise a key point related to the measurement of social capital. They ask if a measure of social capital can be found that is universally valid across countries and cultural contexts. This in fact relates both to the cross-cultural validity of the concept and to the cultural appropriateness of measurement tools. They argue that to retain social capital as a useful concept, we need to empirically test whether social capital is a universally measurable phenomenon, or whether we have to restrain its usage and make comparisons only among social units that are culturally not too dissimilar. Interestingly enough, this is an issue that has not received much attention in the literature on social capital.

Before proceeding with the next section, we need to clarify the meaning of degree or stocks of social capital. The question is if we can differentially describe Aboriginal communities according to degrees of social capital (i.e., one community having more social capital than the other), what does it mean that one community has more social capital than the other? Understanding social capital as a feature of a community implies that each community can hold differing stocks of social capital. Nonetheless, given that social capital can be measured at different levels, it may not have positive effects for all members of a community. For instance, social capital within a single group of a community need not be positively related to social capital at the community level. While social capital within a particular group may be expected to have positive effects for the members of that



opportunities to adapt to urban life through social capital networks. These are described as networking opportunities to build new friendships, human capital and linkages to community resources. Among other expected impacts, one is the reduction in youth crime and certain adult crimes by reducing isolation and social disorganization.

Two of these papers (Lévesque, 2005; Keating et al., 2005) centre their analyses of impacts on the social capital of individuals, Kunz's (2005) article essentially focuses on the family level, while the other two documents (Corrado, 2005; White et al., 2005) basically understand social capital at the community level. Lévesque (2005) uses a network-based approach to social capital, where it is considered "a resource that stems from participation in certain social networks that possess specific characteristics which open up access to resources of varying value" (p. 5). It is the participation of individuals in certain social networks that Lévesque studies, and as such it is about the social capital of individuals (as the author rightly acknowledges). Keating and colleagues' (2005) view of support networks and care networks is located more on the intersection between individual social capital and community social capital. They review research linking these networks with aging well, and the results are somewhat mixed in relation to positive outcomes. Nonetheless, the main implications of their paper relate more to programs and policies that seek to engage individuals to networks than to community-level social capital interventions.

Kunz's (2005) focus is on social capital at the family level as it relates to immigrant settlement and integration in Canadian society. The author's main conclusions are that social networks play an important role in immigrant integration and also to some extent to better settlement and integration outcomes for immigrants and for society in general. The evidence supports the relationship between networks and job attainment but not whether networks result in better jobs.

White and colleagues' (2005) adopt a "structural approach" to the concept of social capital, defining it as "the networks of social relations within the milieu, characterized by specific norms and attitudes that potentially enable individuals or groups access to a pool of resources and supports" (p. 67). They conclude that understanding social capital is important in promoting educational attainment but that "it has moderate influence and rarely acts alone" (p. 77). The authors argue that social capital influences outcomes for Aboriginal educational attainment in conjunction with other resources (human and economic/physical capital). Corrado (2005) reviews initiatives aimed at building community (or neighbourhood) level social capital

as a means of crime prevention. He concludes that there is sufficient research evidence "to be optimistic about the relevance and importance of social capital" (p. 129) in the prevention of crime.

The next set of studies are earlier "illustrative fields" that Putnam (2000, p. 290) provides as "measurable and well-documented", suggesting that social capital (from a community level perspective) makes a difference. The review uses both Putnam's evidence and that of other researchers. Scholars argue that child development is powerfully shaped by social capital (Putnam, 2000) citing a body of research over the last several decades suggesting that trust, networks and norms of reciprocity within a child's family, school, peer group, and the larger community have wide-ranging effects on the child's opportunities and choices and, hence, on his or her behaviour and development. For instance, a strong convergence was found between state-by-state (in the United States) Social Capital Index and a measure of child well-being, the Kids Count indexes of the Annie E. Casey Foundation. Even when holding constant numerous other factors, social capital appeared second only to poverty in the effect on children's lives. Similar conclusions have been reached by scholars studying family life at the level of the neighbourhood. For example, in a study of two neighbourhoods (Garbarino & Sherman, 1980), one with a high child maltreatment rate and the other with a low rate, social capital turned out to be the main factor that distinguished the two communities. State-level measures of higher social capital have been found to be correlated with higher student scores on standardized tests in elementary school, junior high and high school, as well as with the rate at which students stay in school (Putnam, 2000). These apparent beneficial effects of social capital persist even after accounting for a number of other factors such as racial composition, affluence, economic inequality, adult educational levels, poverty rates, educational spending, teacher's salaries, class size, etc.

In relation to crime, numerous studies have also found a connection between higher levels of social capital and lower crime rates. A state-level analysis of homicide statistics in the United States consistently found proportionally fewer murders in states with more social capital (Putnam, 2000). A thorough study by Sampson and colleagues (1997) of Chicago neighbourhoods found that two characteristics -mutual trust and altruism among neighbours, and their willingness to intervene when they see children misbehaving- went a long way to explain why some neighbourhoods are less crime prone than others. According to this study, a neighbourhood's "collective



efficacy” was a better predictor than was its poverty or residential instability of whether a person is likely to be victimized in the neighbourhood. A study by Sampson and Groves (1989) analyzing British crime data found that in areas where people are connected through tight bonds of friendship and looser yet more diverse acquaintanceship ties, and where people are active in local committees and clubs, there are fewer muggings, assaults, burglaries, auto thefts, etc. In line with the notion that impacts of social capital may not necessarily be seen as positive, Putnam (2000) points out that inner-city gangs may be seen as attempts at neighbourhood-based social capital building in areas where constructive institutions are lacking.

As Putnam (2000) explains, economists have developed an impressive body of research suggesting that social ties can influence who gets a job, a bonus, a promotion and other employment benefits. However, this is at the individual level. The question about the potential positive effect of community social capital on economic well-being is somewhat more complicated. At a neighbourhood level, a Pittsburgh study (Temkin & Rohe, 1998) found that, other things being equal, neighbourhoods with high social capital were far less likely to decline than were low social capital areas. A study in poor communities in Nicaragua (Mitchell & Bossert, 2006) analyzed relationships between membership density, social trust and a comprehensive set of household-level social capital indicators. The structural measures were found to be more strongly associated with positive community outcomes.

In relation to the health field, numerous studies have been published after 1997. The earlier studies were that of Kawachi and colleagues (1997). These researchers carried out an ecological analysis of social capital indicators across the United States in relation to state-level mortality rates. The results suggested, for instance, that per capita group membership in each state was strongly inversely correlated with age-adjusted all-cause mortality (after adjusting for household poverty rates). Also, lower levels of social trust were associated with higher rates of most major causes of death. In 1999, Kawachi and colleagues reported on a multilevel study of the relationship between state-level social capital and individual self-rated health. As expected, they found strong associations between individual risk factors (e.g., low income, low education, smoking, etc.) and poor self-rated health. However, even after adjusting for these variables, individuals living in states with low social capital were at increased risk of poor self-rated health (the odds ratio for fair/poor health associated with living in areas with the lowest levels of social trust was 1.41). Already in 2001 Health Canada sought to clarify the place of social capital

among the social determinants of health (van Kemenade, 2001). The report presented some of the initial studies of Kawachi and Putnam suggesting positive effects of social capital on health. It also provided a brief review of the various methods used to measure social capital, as well as the indicators commonly used in research on the subject.

A Finnish study (Nieminen, 2006) explored associations between social capital and health, from a national survey of adult population. Using factor analyses, the researcher identified three dimensions of social capital, social support, participation, and trust. Each dimension was studied separately in relation to perceived health. The results suggested a clear association of each dimension of social capital with perceived health, even when controlling for age, gender, chronic illness and the two other dimensions.

Yip and colleagues (2007) empirically examined the relationships between social capital and health and well-being in rural China. The researchers measured social capital adopting a structural/cognitive distinction, whereby structural social capital was measured by organizational membership and cognitive social capital was measured by a composite index of trust, reciprocity and mutual help. The outcome measures included self-reported general health, psychological health and subjective well-being. Results indicated that cognitive social capital (i.e., trust) was positively associated with all three outcome measures at the individual level and psychological health/subjective well-being at the village level as well.

Folland (2007) sought to extend the body of research of Putnam in relation to social capital and health using United States data from 48 states from 1978 to 1998. He did so by challenging the association hypothesis in several ways: seven different health measures were studied; the 48 contiguous states were observed at six points in time from 1978 to 1998 over four year intervals; multivariate tests featuring economic variables from the production of health literature; and a statistical method (instrumental variables) was applied to account for the possibility that omitted variables are confounding the social capital estimates. The results found cases for which social capital and health hypothesis performed only weakly, but for the most part the hypothesis was remarkably robust to the variations. Although correlation does not establish causation, the study provides further evidence in a direction consistent with the hypothesis that social capital improves health.

A follow-up study (Sundquist, et. al., 2006) of 1.4 million men and 1.5 million women in Sweden for 1998 and 1999 assessed the association between linking social capital and coronary heart disease (CHD). Neighbourhood linking social capital was conceptualized as proportions



of individuals voting in local government elections at the neighbourhood level. The neighbourhood- and individual-level factors were analysed within a multilevel framework. Linking social capital was associated with CHD in both men and women. In neighbourhoods with low linking social capital, the odds ratios were 1.19 and 1.29 for men and women respectively, after adjustment for age, country of birth, education, marital status and housing tenure.

A study analyzing *Los Angeles Family and Neighborhood Survey* data (Carpiano, 2007) linked with tract level census data tested a conceptual model of neighbourhood conditions and social capital. It assessed the relationships between neighbourhood social capital forms (social support, social leverage, informal social control and neighbourhood organization participation) and adult health behaviours (smoking, binge drinking) and perceived health. The results suggested that specific social capital forms were directly associated with both positive and negative health outcomes.

Cross-sectional data from the Young Lives study with information across 234 communities in Peru, Ethiopia, Vietnam, and Andhra Pradesh (India) were used to assess the association between common mental health disorders (CMD) of mothers of one-year-old children and individual and ecological (community-level) social capital (De Silva, et al., 2007). Multi-level modelling was used while adjusting for a wide range of individual and community level confounders. The analysis showed that individual cognitive social capital was associated with reduced odds of CMD across all four countries. The results for social capital were more mixed and culturally specific.

Another study (Lofors & Sundquist, 2007) examined the association between linking social capital and hospitalization due to depression or psychosis in the entire Swedish population aged 25-64 (4.5 million men and women) from 1997 to 1999. Small area neighbourhood units were used to define neighbourhoods. The definition of linking social capital was based on mean voting participation in each neighbourhood unit. Multilevel logistic regression was used to estimate odds ratios and neighbourhood-level variance. The results showed associations linking social capital and hospitalization due to depression or psychosis for both men and women even after adjustment for age, housing tenure, education, employment status marital status, and country of birth. However, neighbourhood deprivation did eliminate social capital as an explanation in the case of depression, but not in the case of psychosis.

The state-level association between social capital and rates of gonorrhoea and syphilis were examined analyzing data from the 48 contiguous states of the United States

for 1990, 1995 and 2000, while controlling for regional variation in STD rates, poverty, income inequality, racial composition, and percentage aged 15-34 years (Semaan et al., 2007). Regression analysis showed that states with higher social capital had lower STD rates. However, social capital was not associated with STD rates when state variation in racial composition was included in the regression analysis.

Specific to Aboriginal communities, research into the impacts of social capital is scarce. Among the few recent studies is one that examined body mass index (BMI), income and social capital in a Native Amazonian society (Brabec et al., 2007). The research found evidence that village social capital and village income complement each other and are associated with higher BMI.¹⁷ Another study (Memmott & Meltzer, 2005) discusses the application of the social capital construct to indigenous communities in Australia. These authors report on a community that moved from a state of social stress and violence to one of social prospering and creative achievements. The change was largely achieved by drawing on traditionally derived networks and norms, and applying them to the more formal "whitefella style" networks. Also in Australia, Baum (2007a) provides a case study of relationships between Australian Aboriginal and non-Aboriginal peoples. He provides some evidence suggesting that low linking social capital may be part of the explanation for poor health status among Aboriginal peoples. A very relevant study examined cultural continuity and its role as a protective factor against suicide (Chandler & Lalonde, 1998). Although this paper is not strictly about social capital, several of the factors analyzed are clearly related to social capital within communities. The authors reviewed the notions of personal and cultural continuity and their relevance to understanding suicide among youth in nearly 200 First Nations in British Columbia. The authors found that the rates of suicide were related to the degree to which these First Nations were engaged in community practices that showed a collective effort to rehabilitate cultural continuity. Communities that have taken active steps to preserve and rehabilitate their own cultures were shown to be those in which youth suicide rates are dramatically lower. In Manitoba, a study was published formulating plausible mechanisms linking social capital to suicide risk factors among First Nations youth (Mignone & O'Neil, 2005). Nonetheless, these researchers are yet to provide empirical evidence. Currently a research program using data from the Manitoba First Nations Regional Health Survey is testing a number of hypotheses in relation to bonding social capital and several health and well-being outcomes (Elias et al., 2007).



is also discussed in relation to democratic practices... [S]ocial cohesion is sometimes interpreted in terms of society's capacity to mediate conflict over access to power and resources, to accept controversy without trying to shut it down (p. 17).

This brief review of social cohesion suggests both overlapping aspects and distinctions with the understanding of social capital formulated in the previous sections. Social cohesion closely approximates the dimension of bonding social capital in particular the trust and association components. However, it does not refer to socially invested resources and networks. In this sense, social cohesion can be considered a concept with overlapping aspects to social capital, or a subset of social capital. The latter perspective would locate social cohesion mostly, though not exclusively, within the dimension of bonding social capital.

Finally, there is a distinction from a theoretical perspective that might be the strongest in favour of social capital. The description of a community from the level of its cohesiveness conveys a closed system's perspective of societies. At the very least, it does not include in its construct the interactivity with other communities or institutions. A multidimensional notion of social capital articulates the reality of communities as open systems and takes into account the consequent dynamics.

Another term frequently found in relation to social capital is social support. The main difference between social support and social capital relates to what they each characterize. If we consider social capital as an attribute of individuals or families, then there can be some significant overlapping with social support. Social support shares with social capital the notion of resources and networks (more so than with social cohesion). However, contrary to social capital, social support is not a notion that has been formulated as an attribute of a community. The availability of social support appears more individually or family based and proximal, than social capital. As Kawachi and Berkman (2000) state "social cohesion and social capital are both collective, or ecological, dimensions of society ... to be distinguished from the concepts of social networks and social support, which are characteristically measured at the level of the individual" (p. 175).

Again, as with social cohesion, most of the conceptual overlapping would be related to bonding social capital. However, an interesting parallel can also be formulated for the other dimensions of social capital. If we look at the community as an individual or family, both the bridging and linkage dimensions of social capital would correspond to

social support functions. In particular the "assistance and/or information one receives through formal and informal contacts" (Wallston et al., 1983, p. 369).

Finally, the term "social networks" is intimately linked to social capital. According to Berkman and Glass (2000) "Barnes (1954) and Bott (1957) developed the concept of social networks to analyze ties that cut across traditional kinship, residential, and class groups ... The development of social network models provided a way to view the structural properties of relationships among people with no constraints or expectations that these relationships occurred only among bounded groups defined a priori" (p. 140). Wellman (1993) identifies an "egocentric network approach to social network analysis in which the structure and function of networks are assessed from the perspective of an individual" (p. 424). In the words of Berkman and Glass (2000), "the strength of social network theory rests on the testable assumption that the social structure of the network itself is largely responsible for determining individual behavior and attitudes by shaping the flow of resources which determine access to opportunities and constraints on behavior" (pp. 140-1).

Wellman (1988) argues that the essence of community is its social structure, not its spatial structure. By assessing actual ties between network members, one can empirically test whether community exists and whether that community is defined on the basis of neighbourhood, kinships, friendship, institutional affiliation or other characteristics.

The concept of social networks presents several common notions with social capital. First, "network" is a component of each dimension in some of the formulations of social capital. In this sense, the idea of social networks fits well within social capital. Second, the concept of social networks shares with social capital the double capacity of being an attribute of individuals and families (the "egocentric network approach"), and of being an attribute of a society. The main distinction between social capital and social networks is that the former includes a resources component. The concept of social networks focuses on "the medium," whereas social capital is composed of "the medium and the message" (Woolcock, 1998b). More so, social capital encompasses the possibility of the medium being the message. As Burt (1992) states, "social capital is at once the resources contacts hold and the structure of contacts in a network. The first term describes whom you reach. The second describes how you reach" (p. 12). This notion is further pursued by Lin (2001) when he postulates, within the theory of social capital, that in social networks interacting actors carry varying types of resources, and that



or stored and do not create new resources. However, the main policy and programmatic puzzle relates to the type of investments needed. The above cases suggest that the investments are necessarily of different and various natures, and although not all may be possible, they do need to be considered as options.

The evidence

There is very little empirical evidence related to the results of programs and policies influencing social capital. To our knowledge, the above cited South African case description (Pronyk et al., 2008) is the only intervention embedded with a research design that allows for some clear evidence in this respect. The empirical evidence they provide suggests that “an intervention group-based microfinance with gender and HIV training has the potential to catalyze shifts in multiple dimensions of social capital” (p. 1566). They further indicate that the effects on “structural social capital appeared large, with evidence of expanded social group membership” (p. 1567). Pronyk and colleagues (2008) also provide some evidence that suggests “effects on cognitive social capital... particularly solidarity and collective action” (p. 1567). Another scholar (Herrerros, 2004) analyzed country-level data to assess the potential role of the state on impacting social capital, and provided evidence to its effect on several measures. There are also a number of writings that offer some degree of evidence, as well as possible explanations, about potential ways of influencing levels of social capital.

Kawachi and Berkman (2000) state that “there is an asymmetry to our state of knowledge of social capital; regrettably, we have a far better understanding of the forces that tend to destroy social capital, but rather few notions of what kinds of interventions help to build it” (p. 188). They indicate that one lesson is clear, that social capital requires stability of social structure. Disruptions of social organization or of social relations can be highly destructive to social capital. This follows Jane Jacobs’ (1961) ideas that a basis of social cohesion must be a continuity of people who have forged social networks. “These networks are a city’s irreplaceable social capital. Whenever the capital is lost, from whatever cause, the income from it disappears, never to return until and unless new capital is slowly and chancily accumulated” (p. 138).

Putnam (2000) also indicates that “creating (or re-creating) social capital is no simple task” (p. 402). In relation to the United States as a whole, he identifies six spheres that deserve special attention to renew stocks of social capital: youth and schools; the workplace; urban and metropolitan design; religion, arts and culture; and politics and government. Putnam argues that “a mounting body of

evidence confirms that community service programs really do strengthen the civic muscles of participants, especially if the service is meaningful, regular, and woven into the fabric of the school curriculum” (2000, p. 405). Volunteering in one’s youth is the strongest predictor of adult volunteering. Participation in extracurricular activities (both school linked and independent) is another proven means to increase civic and social involvement in later life. Putnam also indicates that there is some evidence that community- and family-oriented workplace practices benefit the employer as well as the employee. Consequently, ways to reward firms that act responsibly toward their employees’ family and community commitments and ways to encourage other employers to follow their example have to be formulated. Putnam also argues that it is plausible that urban design innovations like mixed-use zoning, pedestrian-friendly street grids and more space for public use should enhance social capital. He also mentions that the internet can reinforce real, face-to-face communities, not merely displace them with a virtual community. “Computer-mediated communication also opens opportunities for forms of democratic deliberation and community building –like citywide citizen debates about local issues or joint explorations of local history or even announcements of a local ultimate Frisbee tournament” (Putnam, 2000, p. 411). Consequently, he argues that the digital divide can and must be addressed by public policy. Finally, Putnam insists that social capital is often a valuable by-product of cultural activities whose main purpose is purely artistic.

Furthering Putnam’s above argument, Hall (1999) states that “social capital...turns primarily on the degree to which people associate regularly with one another in settings of relative equality, thus building up relations of trust and mutual reciprocity. Therefore, it may be created via formal or informal patterns of sociability...” (p. 420). After analyzing the development of social capital in Britain, he concludes that “governments can and do affect the levels of social capital in their nation...[In] the British experience... through both their educational policies and social policies, it seems that government can have a significant effect on levels of social capital...” (p. 458).

Herrerros (2004), despite building on the position that views social capital essentially as a by-product of other activities, emphasizes other sources, in particular the role of the state. Based on his analyses comparing countries in relation to welfare state interventions he argues that “The Welfare State social policies distribute resources (financial and cognitive) to individuals that enable them to participate in associations, and social policies (education, pensions, health) create interests around which people organize” (p. 87).



the strengths and limitations, social capital as a concept may help better understand the dynamics of societies and communities and may help guide programmatic and policy interventions. This has clearly captured the imagination of a large number of scholars. The verdict in relation to its impacts is still out, and will remain as such for the foreseeable future. Nonetheless, this is no excuse for inaction in either the research and policy fields.

In relation to plausible mechanisms linking social capital to health, Kawachi and Berkman (2000) formulated three options at the neighbourhood level. They argue that “one possibility is by influencing health-related behaviours in two ways, by promoting more rapid diffusion of health information or increasing the likelihood that health norms of behaviour are adopted (e.g., physical activity) and by exerting social control over deviant health-related behaviour” (pp. 184-5). Another option “is by influencing access to services and amenities, for instance, more cohesive neighbourhoods more readily and together to create social organizations that may increase the access to services such as transportation, community health clinics and recreational facilities” (p. 185). Finally, that “neighbourhood social capital could influence the health of individuals via psychosocial processes by providing affective support and acting as a source of self-esteem and mutual respect” (p. 185). At the level of the state, the explanation linking social capital to health could be that the more cohesive states produce more egalitarian patterns of political participation that result in the passage of policies which ensure the security of all its members (Kawachi & Kennedy, 1997; Kawachi et al., 1997b).

Other scholars (Folland, 2007) have suggested other avenues by which social capital might affect health: reducing stress, social ties as buffering of stress; coaching, sympathetic relationships might serve in urging healthful practices; providing information, a social network expands one's knowledge base from which to improve health; increasing responsibility, one's role in the community develops a sense of responsibility for the well-being of others. Costa-Font and Mladovsky (2008) consider that an important influence lies in the social formation of health preferences and constraints individuals face in determining their life-styles and in using health care.

Specific to mental disorders, Lofors and Sundquist (2007) suggest that poor social networks result in a lack of social support, isolation and powerlessness, which in turn increase the individual's vulnerability. Mignone and O'Neil (2005b) hypothesized plausible mechanisms linking social capital to suicide risk and protective factors among First Nations youth. They argue that inclusive, flexible and diverse

networks may have an impact on sense of belonging, support from peers, and family and community support. Also, that collective action, norms of reciprocity and participation may positively impact sense of belonging and better coping with distress.

Szreter and Woolcock (2004a) summarize three perspectives on the efficacy of social capital as explored in the public health literature. One is a ‘social support’ perspective that argues that informal networks are central to objective and subjective welfare. Second is an ‘inequality’ thesis that states that widening economic disparities have eroded citizens' sense of social justice and inclusion, which in turn has led to heightened anxiety and compromised rising life expectancies. Third, a ‘political economy’ approach that sees the primary determinants of poor health outcomes as resulting from socially and politically mediated exclusion from material resources. They then present a “grounded theory of social capital... that develops a distinction between bonding, bridging and linking social capital” (p. 650), arguing that this framework reconciles the three above mentioned perspectives. Their approach is debated by Muntaner (2004) who argues that in order to provide an accurate account of how society affects health, “a historical and structure-less psychosocial constructs” such as social capital, should be replaced with less ideological, and more historically specific models. As well, Davey Smith and Lynch (2004) debate the interpretation of the evidence provided by Szreter and Woolcock in relation to age-specific mortality trends. They state that the social capital mechanism proposed by those scholars is an incomplete explanation. A final paper in this discussion (Szreter & Woolcock, 2004b) states that the argument is not “that social capital, however conceived, is or should be the sole or even primary variable used to explain all public health outcomes” (p. 700). They argue that social capital adds to “social theory for public health policy” in a way that “is not constrained to think in terms only of socio-demographically similar or dissimilar group affiliations... [or to] see all outcomes as inherently the manifestations of individual choices at one extreme or class contests at the other... but that one can integrate a range of group and network memberships into a broader, integrated theory of agency and structure” (p. 704).

A final issue examined in the review was about the ways that social capital can be influenced. It is interesting that so much has been written about social capital, but so few case examples of how it is generated and how it operates has been published in the literature. The review suggested that there is very little clear-cut empirical evidence in relation to actual ways of influencing social capital. Nonetheless, there



is a gamut of data that points to programmatic and policy choices that can be taken into account in the formulation of interventions.

Two issues were identified as relevant to consider when assessing how to influence social capital. First, that social capital is a notion that allows us to organize the reality that we may be trying to influence and to consequently have better tools for interventions. Further, it enables us to develop more reliable ways of measuring potential impacts. Precisely for those reasons, what may be understood as social capital of a community requires careful consideration and definition, and should not be thought of as an entity that can be tangibly distinguished without proper examination. The second issue to influence social capital implies taking into consideration other highly relevant aspects of community that are not discretely separate. The commonalities and distinctions with notions of social cohesion, social support and social networks, make the case for taking these aspects of community into account when assessing ways of influencing social capital.

The development of policies and programs to influence social capital also requires a number of precisions related to the particular realities of the societal context to which they are addressed. The importance of not presupposing a common understanding of what is meant by social capital has clearly emerged. Without specific formulations of what is considered social capital for that particular reality, there is no clear guidance for the object of interventions or policies. Simultaneously, even somewhat differing notions of social capital have to some degree been shown to be affected positively or negatively by interventions and policies. As the previous sections have explained, the identification of the levels of community that are to be addressed is of crucial significance in this respect. Further, the distinction between bottom-up and top-down approaches to building social capital may be useful, while at the same time considering that complementary approaches may be the best. Specific to Aboriginal communities, many of the reviewed ways of influencing social capital seem quite pertinent and promising. However, both in urban and non-urban settings, it is especially relevant to recognize the particular realities of Aboriginal communities and to formulate social capital policies within their specific perspective. If social capital can be a source of inquiry, then the effects of policy on the social capital of communities could and should be monitored, if not considered from the start. The reviews suggest that policy decisions from different levels of government, corporations and Aboriginal leadership, may intentionally or unintentionally impact community social capital stocks for better or for worse.

Where from here?

Sampson (2003) has argued that the consideration of the collective properties of community environments promises a deeper theoretical understanding of the aetiology of health outcomes. He believes, for instance, that the field of public health can also capitalize on sociological theory in a pragmatic fashion by designing prevention strategies from the perspective of collective efficacy. The argument is that traditional thinking about disease has emphasized behavioural change among individuals as a means to reduce disease risk. For instance, smoking interventions have targeted smokers and include hypnosis, smoking cessation programs and nicotine patches. Environmental approaches look instead to macro-level factors such as taxation policies, regulation of smoking in public places and restriction of advertising in places frequented by adolescents. Such approaches appear to have yielded notable reductions in aggregate cigarette consumption in the United States. The evidence suggests that community-level prevention that attempts to change places and social environments rather than people (e.g., building community, targeting hot spots) may yield similar payoffs that complement traditional individual and disease-specific approaches (Sampson, 2003).

As Mechanic (1993) noted in relation to health-related behaviours,

there is little appreciation of the extent to which life imperatives and social opportunities and constraints either enhance or inhibit harmful personal behaviours. Relative to personal behaviour change, such alternatives as the improvement of living conditions, the development of new technologies, regulatory incentives and environmental modifications receive little emphasis (p. 97).

Among the environmental modifications that Mechanic mentions, the social environment is of central relevance. The notion of social capital allows for a better understanding of how to develop and implement interventions for improved community outcomes. Social capital appears to be a useful lens to guide policy and programmatic interventions at the community-level that may have positive impacts on health and well-being.

Nonetheless, there are three main challenges that still require attention: first, the universality of the notion of social capital; second, the evidence at a local level of how to influence social capital and of the impacts of social capital; third, the development and implementation of tangible ways of influencing social capital in Aboriginal communities.



It is a losing cause to expect a universal notion of social capital. Although it apparently complicates matters, it does not truly undermine the usefulness of the concept. From both a research and a policy perspective, we should work with a definition that makes sense to the particular reality we want to deal with. A reasonable expectation is to present an internally logical construct of social capital with clearly identifiable dimensions, which will agree to varying degrees to that of other authors. Essentially however, that it be relevant to the particular societal or community context where it is applied to (context-dependent). For instance, the distinction of bonding, bridging and linking seems to fit well with First Nations communities (geographically delimited, community membership relatively well determined, relations with other First Nations, existence of Tribal Councils, relations with government and corporations, etc.). The review presented a conceptual framework developed among Manitoba First Nations that for now appears to be useful to capture important aspects of community dynamics.

As already mentioned, two areas of research require more development. One is further studies such as that of Pronyk and colleagues (2008) that include in the interventions themselves, a research design that may produce strong empirical evidence. Another area is to conduct more in-depth case histories, analyzing past and current communities' experiences evidencing increased or decreased social capital. The importance of context cannot be overestimated when seeking to understand the role and the generation of social capital, and case histories offer the possibility of capturing the actual context. Social capital is a concept that although requiring thorough theoretical formulation, also needs tangible illustrations for it to be useful for programmatic and policy purposes. As Abbott (1992) has rightly observed, a social science expressed in terms of typical case narratives would provide "far better access for policy intervention than the present social science of variables" (p. 79.). Although the study of social capital based on large random samples or entire populations using for instance questionnaire surveys is important, the current study of social capital is biased in that direction vis-à-vis case studies. As Flyvbjerg (2001) indicates, "a discipline without a large number of thoroughly executed case studies is a discipline without a systematic production of exemplars, and that a discipline without exemplars is an ineffective one" (p. 87). At this point, the study of social capital may be more relevant not essentially to develop theory, "but to contribute to society's practical rationality in elucidating where we are, where we want to go and what is desirable according to diverse sets of values and interests" (Flyvbjerg, 2001, p. 167).

This is the direction that may help better capture why and how social capital may be of use for programs and policy. Further, studies should also focus on seeking to assess the impact of any policy or program on the social fabric, such as environmental impact assessments conducted. For this purpose, the notion of social capital may be particularly useful.

Nonetheless, the review of the literature also showed a number of gaps particularly in relation to Aboriginal communities. For instance, there are no studies that talk about issues within communities related to division that can occur between two or three dominant families who compete to control the position of Chief and Band Council and how this affects the social capital of the community. Further, ways that First Nations communities have dealt successfully with these issues would be very valuable to study as a way for other communities to increase their social capital. Similarly, issues related to more traditional forms of governance as opposed to those who follow the Indian Act provisions would be important to understand in relation to its impact on social capital. Another major gap that merits full attention is the contribution of indigenous knowledge and ways of knowing to the discussion of social capital. For social capital to be more relevant to Aboriginal communities, this is a direction that needs to be pursued.

Specific to Aboriginal communities, participatory action oriented inquiries could be especially helpful. For instance, using rapid assessment designs (Beebe, 1995, 2001; Handwerker, 2001; Chambers, 1994a, 1994b, 1994c; Mignone, et al., 2008) to examine several community-level dimensions of social capital. This assessment would lead to the design and implementation of several community initiatives aimed at strengthening community life and well-being. One of the major reasons for using a rapid assessment design is that it would allow for research and action to be closely linked and compressed in time, thus making real community participation more feasible. Further, the fact that community members would see things happening (i.e., not merely another study with no tangible outcomes) would help sustain the interest and commitment. More so, the participatory rapid assessment itself would be an intervention that could play a social development role. As a broad statement, the objectives of this type of initiative would be to: assess the situation of the communities from a community social capital and well-being perspective; identify and develop intervention strategies to address the social capital and social development dimensions of particular interest; assess the impact of the interventions; and develop a model of community-level intervention



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END NOTES

1. Schuller and colleagues (Schuller et al., 2000) bring to our attention a little known work titled Housing and Social Capital, published in 1957 by the Royal Commission on Canada's Economic Prospects (Dube et al., 1957). Social capital in their formulation is "the public physical infrastructure of a nation".
2. de Tocqueville, "the master himself", in words of Berman (1997), "did not ignore the need to marry the analysis of societal and cultural factors to the study of political institutions."
3. A 2002 book (Hackett, 2002) offers a meticulous account of the diffusion of diseases from Europe through central Canada to the West between 1670 and 1846.
4. Although this definition was derived from an analysis that tested broad theoretical ideas against the specific ethnographic realities of First Nations communities, we believe it is arguably relevant beyond the specific communities from which it arose. This current definition includes minor revisions post publication of papers reporting on the above mentioned study.
5. This incorporates both "hard" and "soft" social capital, as termed by House and colleagues (1999).
6. "(N)unca deja el presente, lo quiera o no, de aglomerar la historia." Original in Spanish. Translation is mine.
7. His measure of trust is derived from the U.S. General Social Survey (GSS) question: "Generally speaking, would you say that most people can be trusted, or that you can't be too careful in dealing with people." Whereas his measure of civic engagement is derived from the GSS questions related to group membership: "Now we would like to know something about the groups and organizations to which individuals belong. Here is a list of various organizations. Could you tell me whether or not you are a member of each type?" No reliability information is provided. In terms of construct validity, Putnam acknowledges the important limitations of this survey because "the domains most central to our interests" are "largely confined to formal group membership, church attendance, and social trust." (Putnam, 2000)



