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Social Capital in First Nations Communities: Concept and Measurement

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Introduction

Social epidemiology is motivated by the question “Why is this society unhealthy?” versus the traditional epidemiological question “Why did this individual get sick?”¹ These are two kinds of etiological questions. The latter question seeks the causes of cases, whereas the former seeks the causes of prevalence and incidence, and thus requires the study of population features—not so much the characteristics of individuals.² Compositional explanations for variations in health between different communities assume that these areas include different types of individuals, and differences between these individuals would account for the observed difference between places. On the other hand, a contextual explanation would consider that there are features of the social or physical environment that influence the health of those exposed to it (either in addition to or in interaction with individual characteristics). This derives in the key distinction between individual level determinants and ecological level determinants of health. The critical view held by the Royal Commission on Aboriginal Peoples (RCAP) on the individualistic analysis of socioeconomic determinants of health is aligned with this contextual explanation (Royal Commission on Aboriginal Peoples 1996a). It was with this perspective that the Health Information and Research Committee (HIR) of the Assembly of Manitoba Chiefs (AMC), together with the Centre for Aboriginal Health Research (CAHR) at the University of Manitoba, outlined a strategic program of research entitled “Why Are Some First Nations Communities Healthy and Others Are Not? Constituting Evidence in First Nations Health Policy” (O’Neil et al. 1999). The authors of this proposed program indicated that analytical frameworks that attempt to associate factors such as poverty with health outcomes are insensitive to the complex socioeconomic conditions that exist in First Nations communities. Nonetheless, they also suggested that

more recent developments in the population health model that include notions of social inequality, social cohesion, and social capital “appear to have more in common with Aboriginal health models.” To date, however, there is scarce research on the impact of the social environment on health status in First Nations communities in Canada that include these perspectives.

As mentioned, there are a variety of possible ecological level descriptors for these factors. Social capital is one of these descriptors. It is an elusive concept that, particularly in social epidemiological studies, appears to have been used with little theoretical examination. Thus, if this notion is to be used with any validity to empirically verify its potential as a determinant of health, a conceptual formulation of social capital and the development of culturally appropriate measures for First Nations communities are first required. In essence, this study resulted from the need to scientifically characterize and measure social capital in First Nations communities for subsequent theorization and empirical testing of its potential as a health determinant, as proposed by the research program of the AMC and the CAHR. This is the main contribution of the inquiry.

From the conception of the inquiry to the use of its findings (including all stages in between), the study is a product of the partnership between the HIR Committee of the AMC, three First Nations communities of Manitoba and the CAHR. The study was a team effort that involved numerous individuals in different capacities from these partnering entities. Finally, this research could not have taken place without the funding provided by the Canadian Population Health Initiative of the Canadian Institute for Health Information.

The following were the study’s main objectives, specific objectives and questions. The main objectives were to (1) formulate a conceptual framework of social capital for First Nations communities, and (2) develop an instrument, culturally appropriate to First Nations communities, for the measurement of social capital. The specific objectives were to (1) identify the dimensions and components of the concept of social capital in a conceptual framework for First Nations communities, (2) develop culturally appropriate items that capture the identified dimensions within the concept of social capital, (3) conduct pilot testing of the developed instrument to measure social capital in First Nations communities, and (4) conduct psychometric analyses of the social capital instrument and revise accordingly. The research questions asked were: (1) What are the dimensions of social capital in First Nations communities? and (2) What are the estimates of the psychometric properties of an instrument developed to measure social capital in First Nations communities?

Methodology

The study consisted of two phases and was conducted as follows. The HIR Committee chose three Manitoban First Nations communities to be part of the research from seven that had volunteered to participate.

The first phase of the study used ethnographic methodology with two aims: to contribute to the development of the conceptual framework, and to generate a list of survey questions. Over a period of approximately three weeks in each community, primary data collection techniques involved a combination of in-depth interviews, informal focus groups, participant observation, archival research and unobtrusive observations. The total number of interviewees reached 89 individuals. Based on a concept analysis and on the results of the ethnographic study, dimensions of social capital were identified for measurement and a list of questionnaire items was developed. After extensive feedback and seven drafts, a final version of the 137-item questionnaire was pilot-tested during the second phase of the study. A total of 462 randomly selected adults from the three communities were surveyed (Community A, 204; Community B, 135; Community C, 123). Community research assistants administered the survey. This large sample number allowed the study to conduct a series of psychometric analyses to determine how reliable and valid the instrument was. The questionnaire contained three separate scales, one for each of the three dimensions of social capital (bonding, bridging and linkage).

Findings

Study findings are reported in the following two subsections. The first one corresponds to the results of the concept analysis and the development of the conceptual framework that incorporates findings from the ethnographic study. It presents the conceptual structure on which the instrument was developed and addresses the first main objective of the study. The second subsection summarizes the results of the psychometric analyses that assessed the reliability and validity of the survey instrument and addresses the second main objective of the study.

Concept Analysis, Conceptual Framework and Ethnographic Study

An analysis of numerous definitions of social capital concluded that, to the point that it is a property of the social environment, it takes the format of a relational resource. It is a resource composed of a variety of elements, most notably social networks, social norms and values, trust and shared resources. Its function(s) appear(s) related to the enabling of some societal good within

the boundary of that specific societal level. A more in-depth analysis of the trajectory of the concept and its different interpretations was then performed.

First Nations Communities' Social Capital Framework

Based on the concept analysis and on results of the ethnographic study, social capital was formulated as constituted by three dimensions: bonding social capital, bridging social capital and linkage social capital. Each dimension was postulated as including three mutually dependent components: socially invested resources, culture and social networks. Is social capital “social” because “capital” is collectively owned, or is it social because the “social” is the “capital”? The identification in this model of “socially invested resources” (the first premise in the question) and of “networks” (the second premise in the question) in a mutually dependent relationship, via cultural enablers or inhibitors, arrives to an understanding of social capital that resolves this apparent ambiguity. This 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 (e.g., communities can be areal/spatial, of interest, etc.). This study centred its understanding of First Nations communities as those delimited by the political unity of a reserve, but including all inhabitants, both band members and non-band members. In this sense they can be considered communities of place (Flora 1997). However, this definition does not exclude those living off-reserve, but considers them part of the community through their connections with on-reserve community members.

Bonding social capital refers to that within community relations. It addresses the networks, culture and socially invested resources inside the particular society, community, or group in question (i.e., the intracommunity ties). Bridging social capital is essentially a horizontal metaphor, implying connections between societies, communities, or groups (i.e., the inter-community ties). Linkage social capital refers to a vertical dimension. In the words of Woolcock (2001), “the capacity to leverage resources, ideas, and information from formal institutions beyond the community.” Specifically to our study, bonding social capital refers to relations within each First Nations community. Bridging refers to horizontal links with other communities, be they other First Nations communities, or other communities of place (e.g., urban centres). Linkage refers to connections between a particular First Nation and institutions such as federal/provincial government departments and public/private corporations (e.g., Manitoba Hydro, banks).

Table 1 summarizes the social capital framework, showing each dimension as consisting of the three components and their descriptors. For Socially Invested Resources (SIR) the descriptors are physical, symbolic, financial, human, or natural. The central notion is that these resources be socially invested, in other words, that they be potentially accessed by, or of potential future benefit to, any member of the specific community. Each descriptor captures the resource investment at that specific stage of being a resource. Physical refers to tangible resources produced by human beings. Symbolic refers to resources that pertain to the identity of the community as such, and for the most part are intangible. Financial are monetary resources in its different forms. Human resources mean human capacity as a product of formal and informal education. Natural resources are those provided by nature, shaped with or without human intervention. Resources are essentially mutable, for example, a financial resource becomes a physical resource when money is used to build houses, or a human resource becomes a financial resource when income is earned due to an education degree. Consequently, these five descriptors seek to capture the different facets of socially invested resources at a given point in time.

Table 1

Bonding		
SIR*	Culture	Networks
Physical	Trust	
Symbolic	Norms of	
Financial	Reciprocity	Inclusive
Human	Collective Action	Flexible
Natural	Participation	Diverse
Bridging		
SIR	Culture	Networks
Physical	Trust	
Symbolic	Norms of	
Financial	Reciprocity	Inclusive
Human	Collective Action	Flexible
Natural	Participation	Diverse
Linkage		
SIR	Culture	Networks
Physical	Trust	
Symbolic	Norms of	
Financial	Reciprocity	Inclusive
Human	Collective Action	Flexible
Natural	Participation	Diverse

SIR* = Socially Invested Resources

The use of the term “culture” as a component of social capital has a particular, albeit related, sense from that of its more common use. It encompasses notions of trust, norms of reciprocity, collective action and participation. Trust is self-explanatory in that it means that community members trust one another as well as community leaders. Existence of norms of reciprocity, although feasible when considered a neutral notion, conveys for this framework the idea that the reciprocity is of a positive nature. Collective action represents the fact that community members may pursue actions that seek the benefit of the collective. Finally, a culture of participation implies the willingness of community members to be involved with others in common activities. The difference with collective action is that the main reason for participation is that of the individual’s interest, with no explicit purpose of a collective good.

Networks are understood as “structures of recurrent transactions” (Aldrich 1982), and are described according to their diversity, inclusiveness and flexibility. Higher degrees of these three characteristics would imply higher levels of social capital. Inclusiveness of networks refers to the notion that these structures of interactions are relatively open to the possibility of newcomers and to the exchange of information with newcomers. While there is room for subgroups with high levels of interaction (e.g., communities of interest within a community of place), communities require the existence of diverse networks for higher levels of social capital of the community as a whole. Diversity implies the co-existence of networks that differ from one another, composed of distinct elements or qualities, but that are capable of interacting in a meaningful way. Flexibility of networks implies a ready capability to adapt to new, different, or changing requirements.

Inclusiveness, diversity and flexibility are actually interrelated qualities. They are different aspects of a same phenomenon. In general, a correlation among these three descriptors of networks should be expected. Both bonding and bridging networks refer to horizontal relations. The idea is that lateral learning is critical in networks—communities learn best from each other. The difference between bonding and bridging networks is that the latter refers to those within community relations, whereas the former refers to those between community relations. Networks for the linkage dimension refer to the links of the community to provincial, federal government departments and public/private corporations. Though horizontal links (bonding and bridging) could acquire more or less vertical characteristics due to power inequality dynamics, they are still considered horizontal in nature, whereas linkage refers to relations vertically constituted because the power hierarchy is instituted as vertical (consequently it is possible for these linkages to be more or less horizontal, but from a given vertical nature). However, the same ideas apply in the assessment of the networks, whatever the dimension.

Valences³ are required to assess the stocks of social capital. These valences are what the framework calls descriptors (they should not be considered sub-components). In the case of culture and networks, they are straightforward in the framework. These descriptors are purposely positive valences. For example, in the case of culture, higher levels of trust would ultimately entail, *ceteris paribus*, higher stocks of social capital. However, this is more indirect for the descriptors of SIR, where the valence is actually the degree to which the resources are socially invested, and the descriptors are specifications of types of resources. Nonetheless, the combined degree to which each specification of SIR is socially invested speaks—other elements being equal—to higher stocks of social capital.

In summary, social capital would be assessed by the combination of its three dimensions, and each dimension by the combination of each component. This brings us to the operational definition of social capital for this study: *Social capital characterizes a First Nation community based on the degree that its resources are socially invested, that it presents a culture of trust, norms of reciprocity, collective action and participation, and that it possesses inclusive, flexible, and diverse networks. Social capital of a community is assessed through a combination of its bonding (within group relations), bridging (intercommunity ties), and linkage (relation with formal institutions) dimensions.*^{4,5} Table 2 illustrates these ideas with examples taken from community interviews.

Table 2

Bonding Social Capital

Socially Invested Resources – Symbolic

Cultural camps for children and youth held in one of the communities: “[T] hey’d show the kids how to snare, trap beaver, skin beaver, rats, muskrats, moose anything that tracks...they would always talk Cree....they would make bannock over the fire...you know, what the people used to do a long time ago, that’s what they did with the kids.”

Culture – Norms of Reciprocity

Illustrated by the following comment:

“There are norms in our community where people do things for other people. It’s not written down in stone anywhere, it’s just part of the culture. If someone is building a house and says, I need a screw-gun, yeah I have a box, go to my shed and get it. And that person later, the one who loaned the thing may say, I need to borrow an axe off him, and goes back to the guy that borrowed from him.”

Networks - Flexible

Families not interacting with other families because of old disputes illustrates lack of flexibility of networks, as per the following comment: “You hear a lot of animosities that are carried forward from years back...I’ve also heard so and so and his family did so and so to this family and so we are not talking to so and so. There is a lot that is carried on for quite a few years.”

Bridging Social Capital

Socially Invested Resources – Natural

An example is the existence of a Natural Resources Secretariat within a First Nations organizations in Manitoba that represents twenty-seven communities, to which two of the communities that participated in the study belong to. A particular illustration was the assistance provided by this First Nations organization to one of these communities in conducting traditional land use and traditional knowledge research and mapping, as well as supporting outstanding claims related to the environmental impact of hydroelectric development.

Culture – Trust

According to the band administrators of one of the communities, they have been for the most part successful in learning from some initiatives of other First Nations communities. “[O]ther [First Nations] communities, they are very open, but depending upon what issues it is...” The openness between First Nations communities in terms of exchanging knowledge and experience in dealing with common issues can be an expression of trust.

Networks – Diverse

A lack of diversity was expressed by an individual from one of the communities: “We have to learn how to network with one another... even network with our First Nations, even the ones that are the most successful, that have all those facilities in their First Nations. How did you do it? Can you lend us a hand over here. There is not too much communication with other communities.”

Linkage Social Capital

Socially Invested Resources – Financial

This observation made by one interviewee about the relationship with banks evidences difficulties in this area: “[W]ith the majority of native people I think its either you have poor credit, no credit or bankrupt... and because of that a lot of Band members have limited access or no access to funding to start their own businesses.”

Culture – Participation

The loss of participation at a linkage level was made graphic by this interviewee's statement: "Yes, I guess part of our practice, part of our culture is doing a lot of community consultation...and the federal government slashed that piece of it...we used to have community coordinators who would do the consultation, set up workshops to inform the people about the changes...the federal government argued what we were doing too much consultation."

Networks – Inclusive

Inclusiveness relates to interactions with institutions. An example of the former from one of the communities is the following statement from a band official: "So I contacted the company representing Indian Affairs ...so I dealt with...a gentleman by the name of...a really good guy to deal with...and he was extremely cooperative with all my ideas... providing very useful information that saved money and helped upgrade educational services."

Instrument Development Results

Primary analysis goals were to produce a measurement device that had good discriminatory power among First Nations communities, was made up of internally consistent scales, and had good construct validity. The results of these analyses reduced the number of items in the questionnaire to a total of ninety-nine. The internal consistency of each scale presented coefficient alphas of 0.84 (Bonding), 0.73 (Bridging), and 0.81 (Linkage). For a scale to be deemed internally consistent, 0.70 is the acceptable minimum.

After a number of consultations, the research team had hypothesized that one of the communities would be expected to perform better on the Bonding and Linkage scales, and another on the Bridging scale. If the results corresponded with these predictions it would provide some evidence of construct validity to the instrument. Ninety-seven percent of items from the Bonding scale, 95% of items from the Bridging scale, and 84% from the Linkage scale were in the predicted rank order, thus providing tentative evidence of the construct validity of the scales.

To examine whether empirical support could be found to justify the multi-component conceptualization of each dimension of social capital, factor analyses were run for each scale. Results justified the multi-component conceptualization of each dimension of social capital, but only to a relative extent as to what was predicted in the framework.

The final two steps of the analysis sought to determine if demographic characteristics of respondents accounted for the variance in social capital mean scores of the communities. Subgroup differences within communities were also examined. For these goals, stepwise multiple regression analyses were conducted. The results suggested that the characteristics of respondents, despite not being able to be totally ruled out as having some impact on scores, did not appear problematic in that the respondents' community was in most cases a better predictor. This was an important finding in that it validates the idea that social capital scores may vary over and above subgroup differences within communities.

A comparison between scales suggested that the Bonding scale performed the best in the above assessment, with better reliability and validity, followed by the Linkage scale and finally the Bridging scale.

Research Implications

The study resulted from the need to scientifically characterize and measure social capital in First Nations communities—for subsequent theorization and empirical testing of its potential as a health determinant. Both conceptual and measurement findings faced a series of challenges that require consideration. As well, numerous decisions were based on a series of assumptions. The main ones were that individual scores could be meaningfully aggregated to a community level score, that individuals' perception could be used as evidence, that social capital is a community trait (i.e., with temporal stability), and that results could be generalized to other First Nations communities.⁶ The study's conceptual formulation of social capital allowed for these assumptions. The instrument, a survey questionnaire, was composed of three scales, each tapping into a different dimension of social capital. Consequently, its psychometric qualities were assessed separately. After discarding unreliable and non-discriminatory items, the Bonding and Linkage scales evidenced good internal consistency while the Bridging scale showed acceptable internal consistency. This meant that the questionnaire developed on the basis of findings from the first phase of the study was reliable (although test-retest stability was not established due to sample limitations) and discriminated between communities. A further important result was that these differences occurred in the hypothesized order, providing good initial evidence for the construct validity of the instrument. The fact that these individual level data were expected to be aggregated to a community level variable (social capital) meant that we had to determine if individual characteristics of respondents accounted for the variance more than hypothesized community level characteristics. Despite some exceptions, the overall picture was clear that the respondents' community was a better predictor of scores in regression analyses than individuals' characteristics.

So much for the instrument—what did the evidence suggest about the multi-dimensional conceptual framework? The main question in this regard was to determine if there was empirical support to justify the multi-dimensional conceptualization. Results for the three scales had varying degrees of disagreement with this conceptualization. The main implication, from a construct perspective, appears to be that the framework's structure offers dimensional distinctions that are not as distinct as predicted. It raises questions about the validity of the components as formulated in the framework, although not enough to outwardly discard its usefulness. We are then faced with an instrument that appears to be reliable and valid, but at the same time with a construct that has been—only to some extent—validated, and with questions raised about its component structure. As is, the questionnaire can be used in further studies, but the confidence for this use varies between the three scales. This was particularly the case for the Bridging and Linkage scales.

We now have an instrument that evidenced fewer limitations for the Bonding scale and more for the Bridging and Linkage scales. A detailed analysis of non-responses and “don't know” rates demonstrated that they were closely linked to direct or non-direct experience of the respondent with the issue inquired by the item. Community issues would be expected to relate more to individuals' day-to-day experience, whereas intercommunity and institutional topics somewhat less. The differential rates between the Bonding scale and the other two scales were consistent with this expectation. The main consequence appears 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 our 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. The latter could come from two sources: key informants survey and community level data. These sources would constitute a structural scale.

Let us consider what the idea of social capital, formulated in this study, can add to the understanding of First Nations communities health determinants. It presents a dynamic way of characterizing communities that enables comparability based on features that encompass both internal and external relations. It captures social elements with varying degrees of tangibility, although all of them are of importance from a First Nations communities perspective. Finally, it offers a meaningful structure from which to hypothesize and empirically study potential pathways to health of social environmental factors. This is enabled by seeking to understand the social energy of communities, precisely because it is based on the assumption that communities cannot be understood as the sum of parts, but as entities that possess global dynamics, both internal and in relation to other social entities. Consequently, a First Nation community may assess itself, both internally

and in relation to other communities and institutions, by how well its resources are socially invested; by how good of a culture of trust, norms of reciprocity and collective action it possesses; and by how inclusive, flexible and diverse its networks are.

Two research implications emerge. The line of inquiry that leads to the theoretical development and empirical testing of population health determinants pathway models that incorporate ecological level factors requires precise conceptual formulations of social environmental variables and the use of valid measures. The present study has taken an important step in fulfilling these requirements for First Nations health research. Thus, the first implication is that we now have an initial tool with which to advance along this line of research.⁷ We are, to some extent, better placed to proceed, using a nature analogy, to theoretically formulate and empirically examine the ecology of the forest as a determinant of species health based on the understanding that the forest is much more than the sum of trees. Nonetheless, as was repeatedly reiterated throughout the study, construct and measurement validation are part of an ongoing process, which brings us to the second implication—the use of study findings to continue developing the construct of social capital (and maybe other constructs) and improving the tools for its measurement.

A research agenda that would continue this line of inquiry would require the following: First, one further round of measurement refinement and validation, as suggested in the measurement solutions section. Second, based on findings from our current study and from findings from a future study using the revised tools, further adjustments need to be made to the conceptual framework. Third, empirical inquiries need to be conducted to test the hypothesis of social capital as a determinant of health in First Nations communities. Notwithstanding, results from the current study allow for initial steps of the latter by using the current questionnaire in longitudinal studies, for example, with all the cautions already identified. This research agenda would continue to require an effective partnership between First Nations communities, First Nations organizations and academic centres in a research process that, on an ongoing basis, combines conceptual analysis grounded theory development and quantitative evidence.

Policy Implications

The warning that social capital could be a “Trojan horse” for colonization from any side of the ideological spectrum (Labonte 1999) has particular relevance within the First Nations’ context. Given the history of relations between First Nations communities and European descendents and their institutions, the risk of furthering colonization by new means merits careful attention. Consequently, policy implications of the study need to be

considered from three points of view. First is the innate political nature of the concept of social capital; second, the political utilization of the concept; and third, the potential of policy to impact social capital.

Inherent to the way social capital was conceptualized in our study is the notion of community as an entity of empirical inquiry and policy. The idea of higher or lower levels of community social capital is not value-free, given that it presupposes the good of the community, as a whole, as a base criterion. As an epistemologist argues (Demo 1985), social sciences are intrinsically ideological, meaning that ideology exists in reality itself because social reality is inevitably historical and political. The implication is that empirical inquiries that incorporate the construct of social capital need to make this fact explicit in interpreting their findings. Thus, studies using this construct require that both the methods and the findings be a product of First Nations communities' and organizations' interpretation. This also relates to the second area for consideration, the political use of the concept. The assumption is that findings in this area must be subject to First Nations community and organizations representatives' interpretation. Consequently, the policy decisions would derive from their interpretation of the findings. Lastly, 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 construct developed here suggests that policy decisions from different levels of government, corporations and First Nations leadership may intentionally or unintentionally impact community social capital stocks for better or for worse. In essence, it highlights the fact that policies that are in the hands of several parties can have profound impacts on First Nations communities, and, consequently, on the health and well-being of their populations.

Endnotes

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1. In the words of Kawachi (Kawachi 2002).
2. This paraphrases Rose's ideas (Rose 1985).
3. Valence: the degree of attractiveness an individual, activity, or object possesses as a behavioral goal. *Websters' Dictionary* (Merriam-Webster Inc., 1989).
4. A quote from the Royal Commission on Aboriginal Peoples, referring to Aboriginal societies of the past, offers a clear description of communities that could be understood as possessing high stocks of social capital:

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 1996b)

5. A major issue with the use of social capital in population health research has frequently been the lack of a clear distinction from related concepts, or of not identifying the areas where there may be overlaps. Social cohesion suggests both overlapping aspects and distinctions with the understanding of social capital previously formulated. Social cohesion closely approximates the dimension of bonding social capital, in particular, the culture and networks 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.

A 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, in some respect, shares with social capital (more so than social cohesion) the notion of resources and networks. 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.

The concept of social networks presents several common notions with social capital. First, as was examined in the concept analysis, “network” is a component of each dimension 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 (socially invested resources). The concept of social networks focuses on “the medium,” whereas social capital is composed of “the medium and the message” (Woolcock 1998). More so, social capital encompasses the possibility of the medium being the message.

6. Two further assumptions merit brief attention, that individuals understand the boundaries of community in the same way, and that all community members’ views should be weighted equally.
7. In fact, the 2002 wave of the Manitoba First Nations Longitudinal Health Survey has already incorporated a significant segment of the Bonding scale in their survey.

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