CENTRE FOR
SOCIAL SCIENCE RESEARCH

Social Surveys Unit

MEASURING SOCIAL CAPITAL IN CAPE TOWN: PROVIDING A MORE NUANCED PERSPECTIVE OF TRUST AND NETWORKS

Tracy Jooste

CSSR Working Paper No. 140

December 2005

Tracy Jooste completed a masters degree in political science in 2005 at the University of Cape Town. She managed the 2003 and 2005 Cape Area Surveys.

Measuring Social Capital in Cape Town: Providing a more Nuanced Perspective of Trust and Networks

Abstract

This paper provides a critique of the dominant approach to the study of social capital in political science. Social capital is widely studied in terms of only two variables: general interpersonal trust and formal associational activism. This paper argues that social capital is a multidimensional concept. The measurement of social capital therefore requires a wider range of variables, especially ones that tap into neighbourliness and kin-based networks of association. Trust, especially, is a situational concept, and needs to be analysed in a more nuanced manner. In the South African city of Cape Town, the level of general interpersonal trust is low, but trust and networks between neighbours are relatively strong. Factor and reliability analyses are used to examine the validity, reliability and independence of different measures of social capital. The application of a multi-dimensional concept of social capital to exploratory data from Cape Town shows that 'bonding' forms of social capital appear more widespread than 'bridging' forms. This important nuance would not be evident if the standard two-variable approach to social capital was used.

1. Introduction

Social capital has generated as much excitement in the social sciences and policy environment as it has ambiguity. It is an exciting topic of study and analysis because it taps into simple facets of life which we can all relate to, such as trusting each other and interacting with others at a sports club or attending a meeting of the parent-teacher association (PTA) at school. Yet, as simple and everyday as these acts of social capital may seem, social capital is said to hold the power to change and sustain entire societies and regimes. The chain reaction argument in favour of social capital works as follows: the more we trust and actively engage with others, the more likely we are to co-operate, act tolerantly, embrace the fundamentals of democracy and display the type of civic mindedness which helps democratic institutions flourish and societies prosper. It

is the seemingly simple functioning of social capital that makes it equally as ambiguous. Because social capital tends to be vaguely described as something that is everywhere at all times, it is a hard concept to define which raises some very pertinent questions. How do we know social capital when we see it? How can we capture and understand social capital using quantitative research methods? How do we decipher between different types of social capital? Indeed, we need to be able to identify social capital in order to understand its relevance and impact. In the framework of political science, attempts have been made to narrow down social capital both in terms of conceptualisation and operationalisation of the concept, in order to simplify the analysis. The critique and discussions underpinning this paper is written in relation to these conceptual and operational understandings, which are briefly described below.

The dominant definition and measurement of social capital

What is social capital? Social capital is fundamentally and widely understood in terms of two key components: trust and networks of association (Norris, 2002). Trust and networks are the foundation for the creation and sustenance of co-operation, reciprocity and collective action (Putnam, 1993). Trust is conceptualised as the individual's general tendency to trust other people. Individuals are understood to possess one of two personality traits; either they are trusting of others generally or they are not. Networks are conceptualised in terms of voluntary participation in associational activity, which entails interaction with others in the formal context of a club, organisation or association of some sort.

This conceptualisation has fed into the operationalisation of social capital, where social capital is measured in terms of the level of generalised interpersonal trust and level of associational activism in society. The most widely used measurement instrument used to gauge the level of trust in society is derived from the World Values Survey (WVS) – see Box 1.

This measurement has been used by political scientists such as Inglehart (1990) and Putnam (1993)[1] to study the effect of social capital on democratic stability and economists such as Knack and Keefer (1997) in the study of social capital in relation to macroeconomic growth. Interpretations associated with this measure usually assume that it provides sufficient insight into the individual's propensity to trust others and that this information further informs us about the individual's

[1] Although Putnam uses Eurobarometer data in his study on Italian political institutions and social capital, the Eurobarometer makes use the WVS's measure to tap into general interpersonal trust.

ability to co-operate with others, reciprocate and engage in collective action. It is further assumed that the aggregation of responses to this question in a particular country or city tells us something about the extent of bridging social capital in that society i.e. the extent of interconnectedness and social engagement that occurs across certain social cleavages, be it racial, ethnic or religious (Stone and Hughes, 2000, 2001).

Box 1: World Values Survey (2000) measure of General Interpersonal Trust

"Generally speaking would you say that most people can be trusted, or that you can't be too careful when dealing with people?"

Response options are:

1) Most people can be trusted
2) You can't be too careful when dealing with people
3) Don't Know

The operationalisation of networks takes the form of questions asking the respondent how many organisations he or she formally belongs to, with respondents selecting from a range of organisations such as social welfare groups, religious organisations, political parties as well as sports and recreational groups. Box 2 shows the WVS measure of associational activism.

This question measures formal networks of association and assumes that membership in organisations opens up a range of opportunities for those involved because it requires active engagement with others. This engagement allows people to develop certain social skills such as tolerance, co-operation and habits of sharing and reciprocity (Putnam, 2000).

In this paper, I offer a critical perspective of these measures of social capital and discuss both theoretical and measurement issues related hereto. I begin with a critique of the theory and operational methods applied by the dominant political science approach to the study of social capital in relation to democracy. Following this discussion, the paper then focuses on the analytical interpretations of the Cape Area Study (CAS) 2003 data, which was designed to explore new ways of measuring social capital as a multi-dimensional and situational concept. The paper offers some descriptive insight into the stock of social capital in terms of general interpersonal trust, associational activism, neighbourliness and contact with neighbours as well as kin relations. In order to substantiate the claim that social capital is a multi-faceted concept, exploratory factor and reliability analysis are undertaken to test for dimensions in the data

such that we can speak about distinct facets of social capital observed in CAS 2003. The paper concludes with a summary of findings and suggestions for future research.

Box 2: World Values Survey (2000) Measure of Associational Activism/Networks

Please look carefully at the following list of voluntary organisations and activities and say... which, if any, do you belong to? (Code all `yes' answers as 1, if not mentioned code as 2)

		BELONG	NOT MENTIONED
V39	Social welfare services for elderly, handicapped or deprived people	1	2
V40	Religious or church organizations	1	2
V41	Education, arts, music or cultural activities	1	2
V42	Labour unions	1	2
V43	Political parties or groups	1	2
V44	Local community action on issues like poverty, employment, housing, racial equality	1	2
V45	Third world development or human rights	1	2
V46	Conservation, environment, animal rights groups	1	2
V47	Professional associations	1	2
V48	Youth work (e.g. scouts, guides, youth clubs etc.)	1	2
V49	Sports or recreation	1	2
V50	Women's groups	1	2
V51	Peace movement	1	2
V52	Voluntary organizations concerned with health	1	2
V53	Other groups	1	2

2. A Critique of the dominant approaches to the study of social capital in Political Science

Social capital inheres in the structure of relations between and among people (Coleman, 1990). It is the relational element of social capital that distinguishes it from economic and human capital: “to possess social capital, a person must be related to others, and it is the others, not himself, who are the actual source of his or her advantage” (Portes, 1998 cited in Narayan, 1999 : 6). Beyond this

relational element, social capital is a productive resource and the nature of human interaction has implications for individual and group well-being, be it beneficially or detrimentally so (Bourdieu, 1986; Putnam, 1993; Narayan, 1999)[2].

Social capital takes many forms and can be used to achieve a wide spectrum of outcomes. One such outcome is the strengthening of democracy. Social capital is a key variable in the study of the civic culture which is said to lead to the stabilising of democracy. [3] It is argued that social capital, in the form of general interpersonal trust and associational activism, produces benefits such as civic mindedness, co-operative behaviour and political efficacy which fortify democratic institutions (Putnam, 1993, 1995 & 2000 and Inglehart, 1990, 1997).

In this paper, I will critically assess the main approaches and most influential survey tools used in political science to investigate social capital and which have thus far informed our knowledge and understanding of this concept. Trust and networks of association are at the heart of social capital and my critique centres on the conceptualisation and operationalisation hereof. Firstly, I address the assumption that trust is a consistent and unvarying concept, which is captured in individuals' responses to a question testing whether or not they generally trust others. Secondly, I discuss the operational problems surrounding the generalised trust measure used in the World Values Survey (WVS), and adopted by other surveys. Thirdly, shifting to a focus on networks, I critique the assumed interconnectedness between the level of trust and the extent of formal associational networks in society. Further, I discuss the problems associated with measuring networks one-dimensionally, as the extent of the individual's formal associational membership. The paper concludes with a discussion of new approaches to the study of social capital.

---

[2] "It (social capital) is the product of investment strategies, individual or collective, consciously aimed at establishing or reproducing social relationships that are directly useable in the short or long term" (Bourdieu, 1986:251).
"Social capital here refers to features of social organization, such as trust, norms, and networks that can improve the efficiency of society by facilitating co-ordinated action" (Putnam, 1993:167).
Social capital refers to the "the norms and social relations embedded in the social structures of society that enable people to co-ordinate and to achieve desired goals" (Narayan, 1999: 8).

[3] Inglehart defines culture as: "the subjective component of a society's equipment for coping with its environment: the values, attitudes, beliefs, skills and knowledge of its people" (1997:55). As he explains, understanding democracy is not only about understanding the political institutions and democratic regime, but also people's responses and thoughts hereto, i.e. understanding the civic or political culture in society. One such cultural element, which together with a range of other cultural factors is said to promote the democratic culture, is social capital (Inglehart, 1990:24).

Interpersonal Trust: Is there more to the picture?

Trust is often seen as vital for ensuring that society functions like a finely tuned machine. As Newton (2000: 171) comments, "without trust in those upon whom we depend, daily life would be much more difficult, if not impossible for everyone but the lawyers who would make a lot of money". The importance of trust is echoed throughout the social capital literature. According to Almond and Verba (1963), trust is particularly crucial in the sustenance of a civic culture which is vital for democratic stability. The influential works of Putnam (1993, 2000) and Inglehart (1990, 1997) similarly place special emphasis on general interpersonal trust as a prerequisite for effective democratic regimes.

While I have no doubt that trust matters, I am sceptical of the usage of general interpersonal trust as an all-encompassing indicator of the propensity of humans generally to trust and co-operate with each other, to tolerate diversity and display a strong sense of civic responsibility. Indeed, trust is far more complex a concept than is readily assumed.

The dominant approaches to the study of trust and social capital in political science can be attributed to Putnam (1993, 2000) and Inglehart (1990, 1997). Both scholars have made important contributions towards the development of democratic theory using mass opinion data. Putnam's work draws on data from many sources and has been influenced by WVS operational approaches, while Inglehart makes direct use of the WVS data. Putnam and Inglehart are both proponents of what Rose (1998:7) calls the 'social-psychological approach' to social capital. This approach defines social capital in terms of a set of informally held attitudes and conventions which dominate society without having to be enforced by law or authority. Specifically, this approach focuses on the culture of trust, reciprocity and tolerance from which extensive networks and voluntary associations emerge (Rose, 1998).

What distinguishes the social-psychological approach is that individuals are perceived to be consistent in their tendency to trust others, even in a diverse range of situations. [4] Thus, the approach assumes that our ability to trust remains constant regardless of who we are dealing with and it does not consider that individuals may choose to trust people some of the time and not others or that they may trust some people more than others. The situational consistency of

[4] The other approaches which Rose (1998: 7 - 10) discusses is that of Coleman and Fukuyama. Coleman's political economy framework defines social capital as networks of relations, which are both instrumental and situational i.e. they are productive and functional to varied degrees and with varied purposes. Fukuyama asserts that culture is the source of trust and co-operation, which are the defining features of social capital. See also Hjollund & Svendesen (2000) for a discussion on theoretical approaches to social capital.

trust is an assumption that is similarly made in Fukuyama's approach (1995) to the study of social capital. [5] By implication, it is therefore possible to measure a person's stock of social capital by gauging his/her disposition to trust other people generally (Rose, 1998:9). The prevalence of this theoretical reasoning has shaped the main empirical approaches to researching social capital. Thus, social capital is predominantly defined and measured in terms of a generalised disposition to trust, which is believed to capture the individual's level of trust towards others in all circumstances and situations.[6]

The striking weakness of the social-psychological approach is that it relies on a constrained measure of social capital. By asking a single question about whether or not the respondent believes that other people can generally be trusted, it assumes that we gain sufficient insight into the complex decision-making process of individuals and their inclination to develop habits of reciprocity and co-operation with others. The utility of this measurement approach is that on gathering the data, society can be split -up into two groups, distinguishing the trusters from the non-trusters. This is useful for making very broad and rigid descriptions about the stock of social capital in a society. But the key assumption underlying this measure, i.e. that "general trust is an expression of an internal and unvarying personality trait" (Newton, 2001: 203), is a problematic one.[7] As Newton (2001:203) points out, when answering the question of whether or not others can generally be trusted, respondents are probably thinking about the changing external world around them and each person's answers are based on their most recent experience of trust or the first experience which they are able to recall. Newton (2001:203) continues that, "Different forms of trust do not form a single, unified syndrome, as the social-psychological approach suggests they should". It is entirely probable that no such thing as a general disposition to trust exists because people display variable levels of trust in each circumstance and engagement. Hardin (1993) expresses a similar sentiment, remarking that trust is based on the continual accumulation and updating of experience. This plausibly leads to changing patterns of trust

[5] The only variance which Fukuyama (1995) accommodates for is that trust varies by country. Similar to Putnam and Inglehart, Fukuyama hypothesises that our propensity to trust and co-operate is consistent from situation to situation within a country or cultural group, assuming that we will find homogeneity in social capital between individuals within a country, society or group (Rose, 1998:9).

[6] The WVS measure (see Box 2) is the most widely used measure to test general interpersonal trust and is the measurement which aligns with the social-psychological approach to the study of social capital.

[7] Inglehart (1997: 173) conceives of trust as a variable and not a constant in the sense that it is something that can increase or decrease over time and differs by society. But, he fails to apply the similar reasoning to the dimensions and variations in trust in terms of context and circumstances faced by individuals, because he assumes that general trust is an adequate indicator of the individuals' likelihood to trust no matter what situation they face.

over time but is also indicative of the fact that we trust differently depending on who we are dealing with.

It may be worthwhile to investigate and evaluate the individual's radius of trust, probing the distinct nature of various relationships. Is it not reasonable to expect that the trust which individuals invest in their loved ones and family members differs to the nature and extent of trust vested in strangers or acquaintances and that there are different benefits associated with each type of relationship? I would say it most certainly is. It is far too simplistic to analyse so complex a concept as trust by treating it as situationally consistent – in the manner that Putnam (1993), Inglehart (1997) and Fukuyama's (1995) approaches do. To speak about social capital as though it has a static and generalised value is to diminish its usefulness as something which is adaptable and which takes on various forms (Hardin, 2003). Social capital must vary, since its functionality is unique to circumstance and context.[8]

In our quest to understand the nature of social capital, we are, according to Coleman (1990), better equipped to do so if we design our research study to focus on particular circumstances, relationships and environments surrounding networks. By analysing social capital in this way, we might better understand people's ability to work together and co-operate (Paldam, 2000:635). Following this approach, the empirical path would necessitate an analysis of the different types of relationships people forge as well as different forms of trust and how these are of benefit or detriment to personal and societal well-being. Our analysis would, for example, entail looking at the impact of the domain in which people live as well as studying patterns of reliance and survival strategies, with the assumption that there is no such thing as a general disposition to rely on others, but that people instead use different strategies and display relative amounts of trust towards others, in each circumstance faced (Mattes *et al*, 2002:69).

Beyond these conceptual issues, there are a range of technical problems with the WVS measure of interpersonal trust. In terms of reliability, the question is double-barrelled and contains a double negative, making interpretation confusing for respondents. Moreover, the response options "Most people can be trusted" and "You can't be too careful when dealing with people" are not necessarily comparable opposites of each other. Perhaps if the second option were "most people cannot be trusted", we would then be offering the respondent a choice of two distinctly opposed response options, making analysis and interpretation more precise. Furthermore, the question has a forced-choice

[8] The study of networks (see for example Granovetter, 1973) places some emphasis on the manner in which people use different bonds to service different ends, depending on time and context specific needs.

structure, offering no scaled measure of trust. Thus, we are unable to test various strengths of inclination to trust others. Given that the WVS takes a cross-country approach, usage of the data assumes that general trust tells us the same thing and may have the same theoretical and practical consequences in each country. But the interpersonal trust question is not likely to have the same meaning in each country and this limits the interpretive and analytical value derived from the data. [9]

As social scientists, we need to be careful about how we interpret the meaning of people's responses to the interpersonal trust measure. We have no information about whom respondents are referring to when answering since the question tests attitudes to society generally, as though it were a homogenous group of individuals who are equally known to the respondent. In effect, when interpreting the data, we are working with a rather hollow set of responses; 'most people generally' is an invisible, non-descript group which we are expected to build our analysis and respondents perceptions of trust around.

Despite these problems, the WVS trust measurement and data remain widely used. This is probably because the WVS offers data on a host of political as well as socioeconomic variables which can be analysed in relation to social capital. It is also highly valued because it offers longitudinal data on over 80 representative democracies (Inglehart *et al*., 1998), enabling comparisons across countries as well as time. Logistically, surveys are expensive to implement and for researchers, the relative accessibility of the WVS data and the opportunity for comparative analysis is sufficient to justify the use of the WVS's generalised trust data. Certain independent, cross-country survey projects (such as earlier rounds of the Afrobarometer and the Eurobarometer)[10] have adopted this question item to ensure comparability with WVS results. Even in light of these benefits, I argue that the development of the field requires some evolution in how we approach the conceptualisation and operationalisation of trust. We cannot be content to rely on problematic measures for the sake of convenience and comparability alone. It is important that we expand on the range and depth of measures used to understand and analyse social capital in various contexts.

[9] It is very likely that in some societies, the statement 'you can't be too careful when dealing with people' is something of an ingrained and widely accepted saying, which very few people are likely to disagree with. Thus agreeing with this statement may be an automatic response to a common saying rather than a decisive response based on experience or actual beliefs.

[10] The Afrobarometer is a cross-country, comparative survey database comprising data collected across over a dozen democracies in Africa. The research project measures the political and economic climate in Africa and monitors changes over time (see : www.afrobarometer.org). The Eurobarometer performs a similar research function, but in the context of Europe.

Formal associational activism: an adequate indicator of networks?

Beyond the emphasis on trust and reciprocity, the study of networks is prioritised in the social capital literature. Networks are predominantly conceptualised and operationalised as associational activism, i.e. the extent of individuals' formal membership to organisations. Where trust is the attitudinal component, networks tap into what Norris (2002) terms the *structural component* of social capital. Networks of association are considered to be equally as important as trust for the survival of democracy. Widespread membership in organisations indicates greater interconnectedness which in turn positively impacts on social cohesion, habits of reciprocity and access to resources or support structures which are provided by fellow members (Putnam, 1995, 2000 & Frank, 2004). Together with levels of trust, the extent of associational activism in a society is said to provide us with a picture of the general level of social capital.

De Tocqueville, in his analysis of American democracy, argued that membership in voluntary associations was conducive to democracy because human engagement creates a sense of trust which strengthens political institutions (Newton, 2000). Taking the de Tocqueville approach further, both Inglehart and Putnam make claims regarding the relationship between interpersonal trust and networks as being "intimately intertwined and mutually supportive in any society that flourishes for any length of time" (Inglehart, 1997:188). By implication we should expect to find a generally strong and robust relationship between these two facets of social capital and democratic stability, since the approach hypothesises that networks lead to trust, the benefits of which flow upwards into civil society to strengthen the democracy (Paldam, 2000:636).

The direction of the relationship between trust and networks however, remains unclear. According to Inglehart (1997), networks occur as a result of trust and reciprocity, which are seen as crucial to political and economic co-operation. But according to Putnam, in *Bowling Alone* (2000:23), social capital is defined as 'connections among individuals – social networks and the norms of reciprocity and trustworthiness that arise from them'. Here it is networks which are given priority as the defining feature of social capital, from where trust and reciprocity are derived. Although Putnam and Inglehart have different perspectives on which is the cause and which is the effect, both advocate an interconnected relationship between trust and networks. However, evidence in support of their claims is decidedly lacking. In fact there is very little evidence to support either claim, that networks lead to trust or that trust leads to network formation. Indeed, 'survey research (in particular the WVS) shows no more than

a weak and intermittent association between membership in voluntary associations and a willingness to express trust' (Newton, 2001:204). Norris (2002) makes a similar observation about the lack of evidence supporting the claimed relationship between trust and associational affiliation at the macro-level and Mattes *et al* (2002 : 71) making use of Afrobarometer data, found no relationship between trust and network usage as a survival strategy in Africa.

The fact that empirical research has time and again yielded this finding is somewhat discouraging. This is not to say that there are no grounds for the Putnam or Inglehart theory that trust and networks are related concepts, in fact it is a plausible assumption in many respects. However, the proposition that the one causes the other in some clear-cut fashion is a far too simplistic one to make given the dynamic nature of human interaction. The problem may rest with the operationalisation of these concepts. The individual's general disposition to trust and the extent of their formal organisational membership do not provide us with sufficient insight into network formation and trust relations. The weak statistical correlations observed between these two variables suggest that we may be stretching the analytical power of the measurements a bit too far. Furthermore, the nature and functioning of human interaction is sensitive to a number of context related factors. Thus, if we are to analyse the causality between networks and trust, we are likely to find that the Inglehart/Putnam hypotheses may hold some of the time and not others (Rose, 1998). Studying the statistical relationship between the generalised trust and associational activism items may be inadequate in helping us explain the intertwined and situationally varied relationship between these two components of social capital.

Networks of association are said to promote a host of socially and politically beneficial attitudes and behaviours in society. Putnam (1993, 1995 & 2000) purports that associational activity will spur greater interconnectedness because people will be engaging with others and in so doing broaden their network, not only in terms of expanse but also in terms of diversity. It is here where people learn to become co-operative, courteous human beings and refine their ability to act collectively and share resources. It is further assumed that organisational meetings are adequate and appropriate settings for the development of certain attitudes and behaviours such as tolerance and civic responsibility. However, these assumptions ignore many aspects of real-life interaction such as the homogeneity of many organisations, the mission of some groups to inhibit rather than promote tolerance (e.g. KKK) and the likelihood that certain groups are far less interactive than others. Knowing whether or not someone is involved in organisational activity does not tell us about how and where they shape certain social perspectives, neither the nature of relations with others nor their level of tolerance.

An analysis of WVS data for example suggests that the level of associational membership in South Africa is high (Norris, 2002). In theory this should serve as an indication that South Africans are forging bridging ties, enjoying active engagement with others and are benefiting from the exposure to a range of opportunities and information as a result of such engagement. But it is worth noting that membership activity in South Africa is primarily in religious organisations. This element adds a new spin on the analysis and implications of associational activity in South Africa. Religious groups are by their very nature homogenous in terms of religion and it is unlikely that members forge many cross-cutting bonds since these groups are also likely to be racially and ethnically homogenous. Furthermore, attending a religious service is not necessarily a highly interactive endeavour.

It is also assumed that all groups are similar in their make up and functioning and thus perfectly comparable to each other as structures which offer some social and political benefit to society. This is of course a warped view of reality, not least because some groups have negative social objectives, as Fukuyama (2000: 102) notes in his reference to the Mafia and gangs. With these considerations in mind, it becomes clear that we gain only constrained information about the propensity of people to forge bridging ties and the use membership as an indicator of interconnectedness and networking within a society is flawed on a number of different counts.

The informal networks and interactions which people experience daily may well be more insightful than formal associational activity in explaining certain outcomes. Our interactions with others at school, work, in the family and neighbourhood are more likely to have far greater significance in the origins of social tolerance, reciprocity and co-operation, than the limited and sporadic involvement of most people in organisations (Newton, 2000). Tolerance and trust are more likely to be taught and nurtured from within the home, classroom, workplace or neighbourhood. Thus we may learn more about the sources of tolerance and attitudes towards diversity by studying the influence of informal networks.

As Rose (2000) notes, in African contexts, social capital revolves heavily around informal networks, which are used by individuals and households to produce goods and services for getting things done and meeting basic needs. These networks and the quality of these relations rest on trust and the expectation of reciprocity. This is more likely than formal organisations to be the place where people forge bonds and learn the habits of co-operation and establish a sense of civic responsibility, which strengthens democracy.

The need for a new approach to measuring social capital

Social capital is often spoken about as taking various forms such as bridging and bonding social capital and it is widely accepted that these function with varied purpose and outcome. But, while there is general agreement in the scholarship that social capital is a multi-dimensional concept[11], social capital is very rarely measured in this way. Many studies rely on the limited analytical information derived from using the WVS items and data. The lack of congruence between the theoretical assertions that social capital possesses many dimensions and the empirical measurement instruments and analyses which are decidedly one or at most two-dimensional, is peculiar to say the least. Of course it may come down to accessibility of data and for many researchers the WVS is the most accessible and serves a broadest range of analytical purposes including comparability across time and place.

However, this consideration should not inhibit the development of a wider range of survey items designed to test the various dimensions of social capital which are believed to exist. While the Australian Institute for Family Studies (Stone, Hughes *et al*, 2001), the World Bank, with its *Integrated Questionnaire on Social Capital* (Grootaert, Narayan *et al*, 2004) and Piazza-Georgi's study of social capital in Soweto (2001), are but a few who have made some headway in this regard, much of the social capital research in the field of political science relies on only a few indicators of social capital. This limits the explanatory power which we can attribute to social capital as a determinant of various democratic attitudes and behaviours.

The level of general interpersonal trust is far lower in the few African countries in the WVS sample (South Africa included) than almost anywhere else in the world (Norris, 2002). Norris (using the WVS data) concludes that Putnam's argument holds some ground because, social trust is distributed across countries in such a way that ties in very closely with patterns of socioeconomic and democratic development.[12] The implication seems to be that because South Africa is characterised by very low levels of interpersonal trust, democratic stability and economic welfare may indeed be compromised.

[11] See: Putnam (1993); Narayan *et al* (1999); Widner & Mundt (1998); Stone & Hughes (2001); Piazza-Georgi (2001).

[12] Inglehart (1997) also making use of the WVS data found a slight positive correlation between group membership and economic growth in poorer countries. Others using WVS data, such as Knack and Keefer (1997) have also shown a link between general trust and economic growth, drawing links to the strongest, most established democracies in the world.

But trust cannot simply be assumed to function in generally the same way and be sourced from generally the same place in human thinking and experience, the world over. South Africa has a unique social and political background and in recognition of this, we would contribute more to our understanding of social capital if we created a customised set of indictors, rather than assume that it would suffice to simply adopt and conduct analysis using these very Westernised operational items. Clearly other aspects of trust and networks are worthwhile investigating and without getting a better handle on and empirically investigating the dimensionality of social capital in the South African context we can say little about the implications hereof. It may be that in this context general interpersonal trust matters a lot less than theory and the interpretation of WVS findings lead us to believe. Perhaps it not interpersonal trust, but other forms of trust and networking which play a bigger role in determining civic responsibility, co-operative behaviour and social tolerance, the kinds of attitudes and behaviours which are said to develop democracy. Similarly the analysis of networks is decidedly constrained and takes little cognisance of the manner in which groups and organisations may vary in terms of homogeneity, activity and mission. The data on social capital to which we currently have access do not afford us insight into these issues.

Of course, my proposition that social capital is a multi-dimensional and situational concept requires some empirical backing. With the objective of building on the measures used to analyse social capital, the Cape Area Study 2003 offered me the opportunity to explore social capital in the context of Cape Town. The next section presents the findings from this dataset in terms of offering a descriptive analysis of social capital, as well as exploring different dimensions of social capital in Cape Town.

3. An Innovative Approach to Social Capital: Findings from the Cape Area Study 2003

In conducting survey research, the approach is usually to base the measurement instruments, questionnaire structure and format on predetermined and theory-based notions of what social capital is. Piazza-Georgi (2001:2) comments that "most empirical studies done so far on social capital have used a deductive approach, gathering empirical data on the basis of pre-accepted categories, confirming or rejecting hypotheses about their effects on various social, political and economic indicators". Indeed, the study of theories of social capital and the review of empirical works undertaken by others did much to inform the questionnaire design process for the Cape Area Study 2003 (CAS 2003). However, this did not prevent us from experimenting with innovative approaches to questions and new ways of measuring social capital.

The design of CAS 2003 was undertaken with careful consideration for contextual distinctiveness in terms of social capital: network types, the nature of communities' web of social and economic dependence and the socio-political conditions faced by the population under investigation. In particular, we focused on the significance of neighbourhoods, community and kin-based networks.

The objective of the CAS 2003 was to address the lack of empirical exploration into social capital, with the use of survey instruments. [13] Essentially CAS 2003 was used as a vehicle to explore not only the distribution of social capital but more technically the use of newly constructed measures with the practical purpose of broadening the depth of research and understanding of this concept. The data offers an individual-level, cross-sectional view of social capital as it is distributed and functions in Cape Town. CAS 2003 was conducted with a sample of 588 adult respondents from the various racial and language groups in Cape Town. The CAS 2003 survey was conducted through personal interviews. These took place across seventy Enumerator Areas in the official boundaries of the Cape Metropolitan Area, which served as the sampling frame. The sample of respondents was randomly selected and a stratified cluster sampling approach was used. [14]

Since many of these items used in CAS 2003 are newly designed, I will offer a brief introduction to the reasoning and intention behind each item. My analysis begins when I address a fundamental first question: *What is the stock of social capital in Cape Town?* Based on the social-psychological approach we should expect to find that each of our measures tap into the same underlying concept. Because this approach does not see social capital as a multi-faceted, situationally varied concept, but rather as a situationally consistent one, respondents would be expected to show consistency in their tendency to trust or distrust, no matter the

[13] The CAS 2003 survey was conducted in Cape Town, but it should be noted that the context of Cape Town is by no means used in this analysis as a city representing South Africa as a whole.

[14] The table below shows the adult population of Cape Town as in CAS 2003. Although the sample is racially representative as compared to Census 2001 data, it is not representative in terms of gender, since we over-sampled women and under-sampled men. The CAS 2003 data was weighted to account for this. For detailed description of survey design, fieldwork and sampling please see Seekings *et al*. (2004).

CAS 2003 sample	*Men*		*Women*		*Total*	
	N	*%*	*n*	*%*	*n*	*%*
African	60	10	137	23	197	34
Coloured	96	16	141	24	237	40
Indian	5	<1	1	<1	6	<1
White	66	11	79	13	145	25
Don't know	3	<1	0	0	3	<1
Total	230	39	358	61	588	100

circumstance or context presented. For example, we should find respondents' levels of trust in others generally will parallel their attitudes towards trust in neighbours.

I however have a different set of expectations. Social capital cannot be captured by a single item designed to represent many other elements of human nature, as the interpersonal trust measure is intended to. Similarly understanding social capital does not simply mean merging all our items to create a social capital index on the assumption that they all tap into the same concept. Instead I view social capital as a multi-faceted concept and when describing social capital in Cape Town, I will analyse the distribution of responses to each question posed, treating each variable as a distinct facet of social capital. I anticipate respondents will make clear distinctions in their attitudes towards trust in various groups of people. The facets of social capital to be analysed are:1) general interpersonal trust, 2) neighbourliness, 3) frequency of face-to-face contact with neighbours & kin , 4) frequency of phone/e-mail contact with neighbours & kin and 5) formal associational activity.

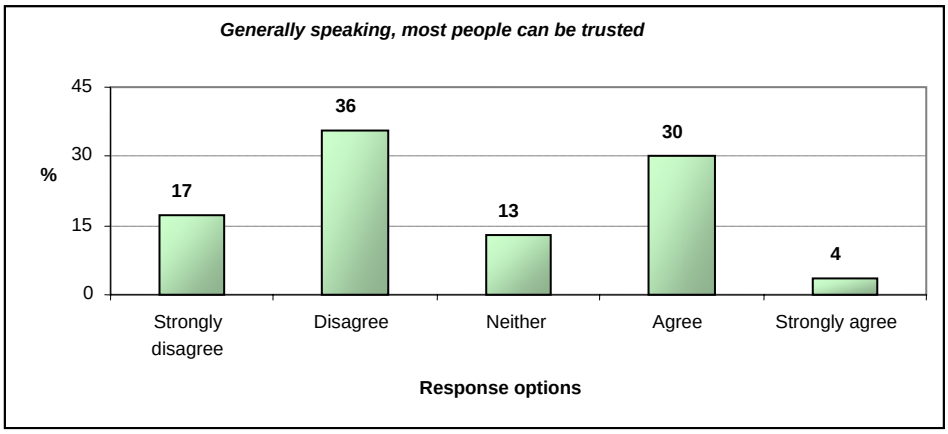
What is the stock of capital in Cape Town?

Social capital's functionality rests in its ability to be applied to a range of situations and in relation to a range of different people. The quantity and quality of trust and networks, as well as the link between them, is conditional upon situation and the type of relationship in question. In light of this consideration, when inquiring about the stock of social capital in a society, there is no such thing as an all-encompassing, blanket measure to inform our knowledge and understanding hereof. Knowing what the stock of social capital is, is not only about the levels of general interpersonal trust and associational activism. We need to account for other aspects of social capital such as informal networks, relations with neighbours and kin and the distinctions people make in terms of who they choose to trust and co-operate with.

General Interpersonal Trust

The WVS and Afrobarometer data shows that South Africa is characterised by low levels of general interpersonal trust[15]. Trust is a fundamental element highlighted in the social capital literature and research and in CAS 2003 we similarly elected to measure this concept, albeit slightly differently. To test general interpersonal trust we asked the respondent to state their level of agreement to the statement: 'Generally speaking most people can be trusted'. [16] In response to the methodological weakness of the WVS question, we opted for a five-point likert scale set of response options, offering respondents a spectrum of options to test the strength of trust rather than presenting a forced choice set of responses. To improve on the design of this measure we were careful not to pose a double-barrelled question.

Figure 1:Distribution of responses to General Interpersonal Trust item



[15] According to the 1990-1993 wave of WVS, only 28 percent of South Africans believed that 'most people can be trusted' and 70 percent believed that 'you can't be too careful when dealing with people' (Inglehart *et al*, 1998). An analysis of more recent Afrobarometer data yields a similar finding both nationally and in the Western Cape specifically:

Results from Afrobarometer Survey (2000) (Democracy Survey 1)	*W.Cape (%) N=240*	*S. Africa (%) N=2200*
Most people can be trusted	18	20
You can't be too careful when dealing with people	80	76
Don't Know	2	4
Total	100	100

[16]The problems with the concept of general interpersonal trust are still considered relevant. But for this investigation we needed to ask a question on general interpersonal trust as a control measure, in order to test whether it is distinct from other items testing trust and reciprocity. It was thus necessary for us to measure this concept and in the analysis I keep in mind that we know little about who people are thinking about when answering this question nor the experiences upon which their answers are based.

Figure 1 above, shows a bimodal pattern of responses, with just over 30 percent of respondents agreeing that most people can be trusted and slightly more respondents, 36 percent, disagreeing with this statement. Grouping the two 'agree' categories (34 percent) and the two 'disagree' categories (53 percent), the data is then generally weighted towards distrust. This finding is somewhat in line with what we know about patterns of general interpersonal trust as observed in Afrobarometer data for example. Responses are however quite mixed and it is clear that even though just over half the responses lie on the disagreement end of the scale, the results are not overwhelmingly weighted towards distrust (as the Afrobarometer and WVS findings suggest).

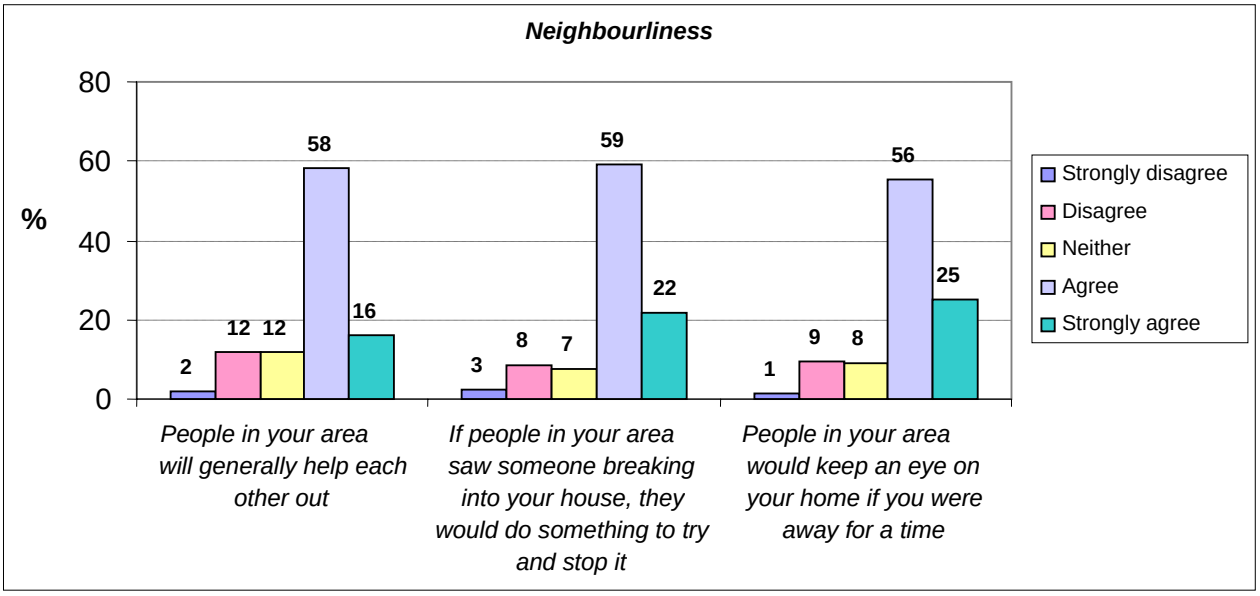
Even when bearing in mind that we have no idea who they perceive as 'others', it is a matter of concern that people tend to distrust rather than trust. The tendency of respondents to distrust may be linked to a range of circumstantial elements, such as experience of crime or perceived rates of crime. Trust warrants deeper analysis, especially in terms of its sources and distribution. What experiences, perceptions or people do respondents have in mind when answering this question? Answers to this question are likely to vary greatly between respondents, but we may hypothesise that trust is related to a sense of victimisation; people might feel they have nothing to gain by letting their guard down or simply that they have no incentive to trust strangers. We thus need to probe further as to why people are so sceptical of others. These are crucial questions which have as yet been left unanswered and would be worthwhile pursuing in greater depth if we are to better explain low levels of generalised trust. While it is not my intention to take this path here, and CAS 2003 data was not designed for this form of analysis, it is important to identify the significance of this topic in the development of social capital research in South Africa and more locally, Cape Town. Thus, future research should be geared at understanding not only where people do and do not place their trust but more importantly why. For now what I can contribute to the study of social capital and trust in particular is to offer insight into trust and reciprocity located in a different context beyond the 'general' setting by focussing on neighbourhoods and kin relations.

Neighbourliness

In designing CAS 2003 we had a specific interest in the perceived quality of neighbourliness, i.e. trust and reciprocity between neighbours. Neighbourhoods are important sites for the formation of bonds which can serve a range of social and policy objectives, ranging from social support structures to helping residents cope with concerns about crime and security. Neighbourhood watch organisations and resident committees are good examples of the ways in which

neighbours can align their energies for the collective good of the area. But these outcomes of social capital rest on trust between neighbours and a general tendency to co-operate. To investigate this further we presented respondents with three questions framed in the situational context of the neighbourhood. Specifically, we probed perceptions about the 1) general helpfulness of neighbours, 2) whether neighbours can be trusted to keep an eye on the home of another as well as 3) whether neighbours can be relied upon to stop a break in if they saw it.

Figure 2: Distribution of responses to Neighbourliness items



Where the generic trust question yielded negative attitudes towards trust in others, it is clear that questions posed in relation to specific groups, such as neighbours, yields quite the opposite result. In figure 2 above, the modal and median response across the three questions is 'agree' and for each item, more than 70 percent of responses lie across the 'strongly agree' and 'agree' categories. The general pattern of responses across all three questions is the same and respondents are clearly in agreement that their neighbours can be trusted to act out a range of tasks in assistance to their needs. In terms of informal predispositions and expectations between neighbours, these results are encouraging and indicative of the high quality of perceived neighbourliness. It is clear that respondents have a lot of faith in their neighbours and this informs us of the strong presence of neighbourhood-based social capital in this sample.

There is a striking difference between the patterns of responses to the neighbourliness questions versus that of general interpersonal trust. While respondents tend to distrust 'other people generally', they possess far more faith and trust in their neighbours. These contrasts are important and it clearly matters

that we have framed our questions to fit specific situations and contexts. This is a preliminary indication that the generic trust item fails to measure the individual's general tendency to trust and co-operate.

The prevalence of neighbourliness observed here can plausibly yield a number of spin-offs. The findings suggest that the necessary social basis for community-level co-operation is present. A strong sense of trust in neighbours bodes well for the prospects of collective action and the development of such things as community forums and community policing initiatives, both of which are important for the maintenance and upkeep of neighbourhood well-being. The findings further suggest that neighbours form part of the web of support that people turn to and on which they can depend in times of need. This could go a long way in sustaining stable, safe and harmonious communities.

Face-to-face contact

Building on these questions, we investigated informal networking between neighbours by probing the frequency of various types of contact which respondents experience with their neighbours. The CAS 2003 data measures four structural dimensions relating to contact. The four items ask about face-to-face and email/phone contact in relation to two types of networks 1) family/relative and 2) neighbours[17]. This provides useful insight into the amount of time people allocate to family and relatives versus neighbours. It will further allow me to analyse the distinctions between networks and the importance respondents place on different groups of people who feature in their lives. I will firstly analyse the frequency distribution of face-to-face contact with neighbours and kin, moving then to look at phone and email contact for the same two groups.

Table 1: Face-to-face contact with 1) family/relatives _& 2) neighbours

	Everyday	**Several times a week**	**Several times a month**	**Several times a year**	**Less than several times a year**
	%	%	%	%	%
How often do you visit or speak to family or relatives?	39	**34**	16	7	3
How often do you visit or speak to neighbours?	45	**28**	11	3	14

Note: Percentage frequency in bold indicates median response.

[17] The flaw in the design of this question is the grouping of *family* with *relatives*. It should be noted that in future we hope to address this issue by making a clear distinction between the variables testing contact with family and contact with relatives.

Interestingly, Table 1 above shows that for both questions the median response is to visit or speak to family/relatives and neighbours 'several times a week'. It is clear that respondents enjoy frequent contact with both kin-based relations and neighbours, with 73 percent of responses falling across the 'everyday' and 'several times a week' categories for both these questions. Face-to-face contact with kin is more evenly distributed between 'everyday' and 'several times a week' but on an 'everyday' basis face-to-face contact with neighbours exceeds contact with family/relatives. At the other end of the response scale, 14 percent of respondents see their neighbours 'less than several times a year' versus the 3 percent who gave the same response regarding their family/relatives. In light of this, respondents enjoy slightly more frequent contact with kin, than with neighbours but generally there is a high rate of face-to-face contact with both groups.

The implications hereof are positive because these connections are important for the development of mutually beneficial relationships between actors. Visiting or choosing to speak to someone is a deliberate and most likely voluntary act of engagement and these informal associations spur outcomes which may serve a host of needs. The theoretical benefits associated herewith are well documented in the literature, and indeed the importance of both family and neighbours in daily survival and coping strategies is widely recognised.[18] The informality of these contacts make them more accessible platforms for networking than formal organisations. Informal networks satisfy objectives in ways that the state welfare system and market are unable to. Keswell (2003:1) notes that "amongst poor South Africans it is multi-faceted support networks which may be in the form of kin, friends, neighbours or organisations, that can often mean the difference between survival and destitution". In these vulnerable environments, it is the interactions and engagements with other community members that allow people to share their risk and maintain a livelihood. Access to this type of assistance requires some nurturing and one way to nurture these relationships is to maintain good contact.

Other forms of contact: E-mail/Phone

As mentioned we probed other forms of contact, specifically focussing on communication with family and relatives and neighbours via phone and email. We hoped that this would broaden our view of networks. Table 2 to follow shows the descriptive findings related hereto.

[18] See various publications by Australian Institute for Family Studies (1999, 2000 & 2001) on the importance of family and community structures in helping people get by and assisting in the attainment of certain ends for individual gain as well as for meso level benefits such as sustaining communities and family foundations. Briggs (1998) as well as Dominguez & Watkins (2003), discuss the value of these connections as a form of bonding social capital and also present findings in support of the argument that these bonds are essential for sustaining the welfare and basic daily needs of community members.

Table 2: Phone/Email contact with 1) family/relatives & 2) neighbours

	Everyday	**Several times a week**	**Several times a month**	**Several times a year**	**Less often**
	%	%	%	%	%
How often do you phone/e-mail family or relatives?	17	32	**26**	4	22
How often do you phone/e-mail neighbours?	5	7	6	6	**75**

Note: Percentage frequency in bold indicates median response.

The results in Table 2 indicate the extent of contact people have with their neighbours and family/relatives, over and above face-to-face contact. Given the high frequency of face-to-face contact it is not surprising that respondents make much less use of phone or email as a means of communication. Generally respondents rely on a greater combination of face-to-face as well as other contact means when it comes to kin-based networks, but as far as neighbours go there is a clear tendency towards face-to-face rather than email or phone contact.

It is not surprising that people have a high frequency of contact with their family/relatives through telephonic or email communication since relatives and family members may live far away but neighbours are more likely to be in close proximity. This is probably why 75% of respondents use these forms of contact with neighbours less than several times a year. While the median response for phone/email contacts with family and relatives is 'several times a month', the median in relation to neighbours is 'less than several times a year.'

It is clear that while trust in 'others generally' is low, family and neighbourhood based networks are highly developed and by all accounts we have much more to learn with respect to the functioning and utility derived from the noted strength of these bonds.

Formal Associational Activity

To test the extent of formal associational membership we asked the respondents to tell us whether they were a leader, active member, inactive member or not a member at all to the organisations listed in table 3:

As is clear from the frequency distributions in Table 3 below, more than 50 percent of respondents are active in religious organisations. In relation to the other groups in the table, this level of participation is unparalleled. In fact, for the rest of the organisations in question, the frequencies are considerably low,

with very high levels of non-membership recorded across all these groups. The 'sports club' and 'group that does things for the community' are the only other groups with membership activity above 10% in the sample. All the other organisations; ranging in type from social, political, community-based and professional; yield very low levels of membership.

Table 3: Formal Associational Membership

Are you a leader or active member or inactive member in this kind of organisation?	**Active member**	**Inactive member**	**Not a member**
	%	%	%
Religious group e.g Church or Mosque	53	21	25
Sports Club or organisation	17	5	78
Group that does things for the community	14	9	77
Local self-help association e.g. stokvel or burial	9	8	83
Trade Union	8	8	88
Group that does things concerned with local matters such as a school PTA	7	6	87
Neighbourhood watch or street committee	6	7	86
A political party	5	13	81
Business or Professional Association	5	3	92
Another social club	.5	8	90
Other	.5	5	92

Note: Grouped under column headed 'Active Member' are the responses which were recorded as either leader or active member.

Theoretically these findings suggest that the stock of social capital is low, even more so because many of the groups in question have some kind of community development objective e.g. stokvels and street committees or in the cases of the political party and trade union groups, are important for the sustenance of political and economic accountability. In terms of trade union membership, we need to look at this in perspective, considering that 51 percent of our respondents recorded 'not having a paid job' of any kind, and are thus broadly defined 'unemployed'. Given these high rates of unemployment we should not be too surprised that trade union membership is low. As for formal membership in political parties, this measure does not necessarily suffice to inform our knowledge of support for political parties. In fact the CAS 2003 data shows that when asked whether they 'feel close to a political party', over 43 percent of respondents answered in the affirmative. I mention these results to emphasise the point that formal political membership tells us little about the strength of political efficacy and people's affinity to support and follow politics as concerned citizens of the democracy. However, the low levels of political party and trade union membership are not encouraging since both types of organisations might be important for democratic stability, as they may function to hold the state and the market accountable.

The low levels of participation in community or neighbourhood based groups should raise some alarm bells, since people are clearly not formally combining their abilities for the benefit of their community or neighbourhood. Formal associations of this kind have been emphasised, particularly in the approach applied by Putnam (1993), as vital to the sustenance of community life and the survival of the civic and institutional structures. Community-based groups work to fill the gaps in the service delivery offered by the state. Beyond this function, formal organisations which represent the needs and demands of the community may help hold the government accountable, by having a say in the policy-making and governance process thus making for a more participatory democracy. The low levels of participation in such groups in Cape Town suggest that there is much work ahead of our communities in the development of locally based organisations. This matter is of utmost importance in our democracy especially in a time when local and provincial government are making a number of attempts to encourage communities to stand together and work towards common security and developmental goals as well as in light of President Thabo Mbeki's call for greater volunteerism. [19]

However, our perspective on community development and integration needs to be more encompassing. Low levels of participation in community-based organisations do not mean that people are failing to engage and co-operate with their neighbours. The extent of trust and reciprocity in the neighbourhood coupled with high rates of face-to-face contact may help explain the low levels of membership to formal organisations. It may be that a substitution effect is taking place whereby participation in formal organisations is substituted by informal networks. In a community where neighbours have a mutual sense of trust and co-operation to safe guard each other and secure collective well-being, there may be a lessened desire and need for formal organisations such as neighbourhood watches and community groups. Regular contact and trust are key components in the formation of support structures which do not need to be formally recognised as associations, but which suffice in securing the collective welfare of the neighbourhood.

This conclusion highlights the shortcomings of relying too heavily on formal associational membership as an indicator of the extent of interconnectedness in communities and thus as a measure of the quality of social capital. Other structural dimensions such as contact may well offer deeper insight into the level of engagement in communities and their capacity to secure collective welfare.

[19] See for example, 'Towards Integrated, Sustainable Communities', Western Cape Provincial Government Budget Speech 2005, on www.wcpp.gov.za. For various briefs and articles describing the provincial government's vision for building community organizations see also www.capegateway.gov.za.

While formal connections are important, we need to develop our analysis of social capital in both forms: formal and informal connections, the latter which is clearly of a different nature and likely to reap an entirely untapped range of benefits. This may be context-driven and uniquely valuable to the African context. It is likely that informal networks are of greater importance to the daily survival strategies of Africans[20] than formal networks, not least because the formal creation and maintenance of organisations is costly in terms of time and money. The poor, who make up the bulk of the population, have less time for leisurely pursuits related to sports or social clubs and the opportunity cost of membership to an organisation often outweigh the benefits thereof. People are likely to be far more focused on their own survival and that of their family than joining a local community organisation or social club.

I do not wish to question the value of formal organisations in society and I recognise fully the importance of these groups in meeting society's developmental objectives. However, we need to build on our understanding of how these organisations function. It is not sufficient to look at formal membership alone, we need to look at why some people elect to join and why others do not as well as develop measures which taps into the benefits derived from membership. Further, it is necessary to study informal activities and associations and the role that these play in helping people survive and prosper in life.

Having offered a descriptive overview of social capital in Cape Town, the next section will provide an exploratory and descriptive analysis of the CAS 2003 data, investigating the dimensionality of the data.

4. Is social capital a multi-dimensional concept? Testing for dimensionality using Factor and Reliability Analyses

The descriptive analysis undertaken thus far has provided some answers to an important question about the stock of social capital. However, the assumption that social capital is a multi-faceted concept raises a second, probably more important question regarding the dimensionality of the concept. Specifically, *is social capital a multi-dimensional concept?* My hypothesis is in the affirmative, social capital is a multi-dimensional concept. In order to test this hypothesis, I undertake Factor and Reliability Analyses. This stage serves the dual purpose of testing the quality of the data, both in terms of validity and reliability and is a

[20] African here does not refer to a racial category, but merely to people, regardless of race, who live on the African continent.

useful set of statistical tools for analysing patterns in the data such that we can observe how variables cluster together to form factors. In this way, dimensional components will be extracted, helping us understand which measures tap in to the same underlying concept and which ones are distinguishable from the rest.

I expect to show that general interpersonal trust is not an all-encompassing measure of trust, because respondents display varied levels of trust depending on who we are asking about. Similarly I anticipate that formal networks of association are distinguishable from informal ones. Alternatively, the data may support the Putnam/Inglehart treatment of the concept, i.e. that general interpersonal trust captures trust in every sense of the word, and indeed that there is nothing to distinguish it from other forms of trust and reciprocity.

In making use of the factor and reliability testing my approach is essentially an exploratory one. I am exploring the manner in which variables cluster together to form factors. I am also testing the quality of the measures in terms of consistency and validity, which is important given that many of the items are newly designed. This process will contribute to improving the study of social capital through survey instruments and the results will assist future endeavours to design good quality measurement items. [21] The first step of this analysis involved the creation of a correlation matrix, indicating the strength of association between the variables measuring social capital. I ran the correlation analysis using the Kendall-Tau B co-efficient since all the variables are ordinal. Certain variables had to be recoded such that a higher score is indicative of more social capital.[22]

[21] To obtain more detail on factor analysis and reliability testing and the criteria used, please see Appendix A.

[22] For recodes, please see Appendix B. Summary statistics for each of the social capital variables are also recorded here.

Table 4: Kendal Tau-B correlations: All measures of social capital

		1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19
		Trust others	Neigh-bours help out	Neigh-bours stop breakin	Neigh-bours watch your house	Visit/ Speak neigh-bours	Ph/ Email neigh-bours	Visit/ Speak Fam/ relative	Ph/ Email Fam/ relative	Rel. grp.	Trade Union	Prof. Ass.	Commu nity group	Local self-help	Neigh-bourh'd watch	Local matters grp	Sports Club	Social club	Politi-cal Party	Other
1	Trust others	1																		
2	Neighbours help out	.082*	1																	
3	Neighbours stop break-in	.101*	.454**	1																
4	Neighbours watch your house	.075*	.524**	.699**	1															
5	Visit/ Speak neighbours	-.057	.018	-.033	-.018	1														
6	Ph/Email neighbours	.000	.006	.054	.034	.014	1													
7	Visit/Speak family/ Relatives	-.018	.001	.054	.023	.227**	.052	1												
8	Ph/Email family/ Relatives	.052	.091*	.110**	.093**	-.104**	.193**	.197**	1											
9	Religious group	-.061	.022	.025	.027	.088*	-.006	.002	.073*	1										
10	Trade Union	-.003	-.065	.035	-.004	-.035	.008	.004	.090*	.084*	1									
11	Prof. Assoc.	.089*	.022	.107**	.067	-.133**	.103*	-.007	.098**	-.051	.107**	1								
12	Community group	.049	.031	-.020	-.012	-.009	.122**	.039	.101**	.115**	.163**	.107**	1							
13	Local self-help	.116**	-.063	.008	-.018	.118**	-.037	-.028	-.063	.020	.128**	.051	.243**	1						
14	Neigh-bourhood watch	.051	.034	.044	.040	.009	.122**	.063	.065	-.060	.051	.044	.276**	.101*	1					
15	Local matters group	.000	-.025	-.049	-.038	-.104**	.164**	-.021	.074*	.122**	.119**	.118**	.303**	.165**	.155**	1				
16	Sports Club	.097*	-.024	.029	-.024	-.068	.077	.007	.121**	-.028	.038	.113**	.138**	-.016	.107**	.112**	1			
17	Social club	-.002	.046	.009	.040	-.057	.044	.006	.505	.051	.032	.067	.138**	-.010	.066	.152**	.134**	1		
18	Political Party	.091*	-.086	-.006	-.035	.056	.111**	-.017	-.010	.000	.114**	.012	.162**	.257**	.161**	.182**	-.004	.007	1	
19	Other	-.054	-.057	.037	.199	-.302	-.683**	.212	.225	.080	.087	.230	.272	.087	-.228	.012	-.284	.129	.230	1

The correlation matrix, Table 4 on the previous page, is useful in displaying the general patterns of association and offers a preliminary indication of which variables are likely to cluster together to form factors. It is clear that the correlations between the variables range from very weak to very strong and significant. The most notable relationship is between the neighbourliness variables, indicative of a very strong set of variables which arguably represents a unique factor and thus dimension of social capital quite different to general interpersonal trust. It is also notable that these three variables have only weak and insignificant associations with the general interpersonal trust item and many of associational activism variables. However, the correlations only provide preliminary indications and the factor and reliability tests are the main statistical techniques which I applied in the investigation of data dimensionality.[23] I will refer back to the correlation scores throughout the paper, as I analyse these results in relation to the findings from the factor and reliability tests.

I applied factor and reliability analyses to the measures of 1) general trust, 2) neighbourliness, 3) face-to-face contact, 4) phone/e-mail contact and 5) formal associational membership and activity. In total, these variables are made up of nineteen question items. Because the process entailed observing and understanding the patterns which the data formed and the manner in which certain variables clustered together, the primary step was to insert all nineteen variables into the factor analysis test. Reference made to the *primary factor analysis* will refer then to this initial factor analysis test, the results of which shaped and directed the process of reliability testing, as well as a series of other factor analysis tests, where necessary.

The primary factor analysis gave an initial indication of how the variables were likely to be clustered to constitute valid and reliable factors or dimensions of social capital.[24] While beginning the process by observing the strongest loadings, any particularly weak or peculiar factor loadings were investigated further.[25] The final interpretation however came down to looking at both the

[23] I applied Maximum Likelihood Factor Analysis. Constructs with an Eigen value over 1 is considered to represent a factor, and I only accommodated loadings >.30. The rotation method used was Direct Oblimin.

[24] In the *primary factor analysis* a total of 5 factors with Eigen values of over 1 were extracted with none of them accounting for more than 10 percent of the variance. Two factors with an Eigen value <1 were also observed, but were deemed invalid.

[25] The analysis entailed investigating the sensitivity of factor loadings to the range of variables in the analysis, i.e. testing the extent to which some items are affected by the items surrounding it. For the peculiar or very weak loadings, the variables attached hereto were

factor analysis outcomes as well as the results of the reliability analysis with consideration for the correlation co-efficients observed in the correlation matrix. The results hereof will now be discussed as I present the factors and dimensions of social capital found in the CAS 2003 data.

General Interpersonal Trust

The correlation matrix offers the first sign of a weak relationship between interpersonal trust and the other social capital variables in the analysis. In the primary factor analysis, the interpersonal trust item was clearly distinguishable from the other variables as it did not load with any of the independent variables and stood out as a single-item factor of sorts.

The interpersonal trust construct had an Eigen value of just 1.02 and a structure matrix loading of .316 and accounted for less than 2 percent of the total variance.[26] The results from the factor analysis suggest that interpersonal trust is capturing a unique facet of social capital, distinguishable from the other variables under investigation. While this is an invaluable first step in separating out various forms of social capital, methodologically there is room for improvement. We clearly need to do more to build on this single item construct and by designing measures around this item develop a stronger, more robust construct to measure the concept of interpersonal trust. Of course, interpersonal trust has to firstly be measured in relation to a specific group of people, once we have decided which aspect of trust we are interested in probing. For example, the concept of generalised trust is often interpreted as people's attitudes towards

---

taken out to observe the effect, if any, which they might have on the strength of the surrounding constructs. Furthermore, in order to study the sensitivity of the peculiar or weak loadings, their weakest correlates were removed to observe whether or not the loadings hereof improved.

[26] After testing the effect of removing the variables with which interpersonal trust was most weakly and negatively associated (based on the results in the correlation matrix), the factor analysis findings remained unchanged to the extent that interpersonal trust once again failed to load with the other variables. I also tested the effect of removing the neighbourly trust variables, since interpersonal trust is more strongly associated with these variables than any of the others; once again the results remained unchanged – interpersonal trust did not load with the any of the independent variables in the analysis. I ran a reliability test with only the interpersonal trust item and neighbourly trust items, the results being an Alpha of .61 which although not strong, is a fairly good indicator of reliability; however this may be attributed to the noted strength of association between the three neighbourly trust variables, which are only slightly being affected by the interpersonal trust item. Furthermore, the factor analysis results paint a picture indicative of neighbourly trust as distinct from general interpersonal trust.

strangers. If we are interested in understanding people's attitudes towards strangers, then logically we should frame our questions to ask about trust in strangers, rather than the non-descript group called 'other people generally'. In this way we can probe the circumstances in which people would and would not feel comfortable or find it necessary to trust strangers. For our immediate analytical purposes though, we only have one item at our disposal in CAS 2003, which captures the interpersonal trust concept.

Neighbourliness

The independent variables measuring respondents' perceptions of trust and reciprocity amongst neighbours and which I have labelled 'neighbourliness', comprise the most robust set of measures in the dataset. The factor loadings are consistently high[27]. These three items consistently cluster together and do not load on any other factor nor do they cluster with any other variables in the analysis. The factor was not in the least sensitive to the surrounding variables and the construct maintained its form through a series of factor tests. It is worth noting that these variables are quite distinct from the generalised interpersonal trust item and this is a key indication that we have, through the design of these measures, tapped into a different dimension of trust. The correlation matrix shows that these items are strongly correlated with each other. The reliability of these variables is strong (Cronbach Alpha = .795). It is clear then that not only is this factor distinct from the other variables, but that neighbourliness is a valid and reliable construct containing three items which can be said to be measuring the same underlying concept.

Face-to-face contact

Based on the results of the factor analysis, the variables measuring the frequency of face-to-face contact with neighbours and family/relatives, are two unique rather than parallel indicators of contact. There is clearly a difference in what we are measuring when we speak of contact with neighbours versus

[27] In the primary factor analysis, these variables made up the factor with the highest Eigen value of 1.8 and explained the largest percentage of the total variance at 10 percent. The structure matrix loadings were: .617, .802 and .905. When undertaking a factor analysis test containing only these three variables, a single factor was extracted, yielding an Eigen value of 2.13, with 71 percent of variance in the factor being explained by these variables. Factor loadings observed: .579, .780, .913.

contact with family/relatives since these variables did not form a factor.[28] It is unsurprising that these variables are weakly correlated since we can plausibly expect that people have different patterns of contact when it comes to kin-based relationships and that of neighbours. As the reliability analysis of these two items confirmed, with an Alpha of .377, there is no more than a weak, unreliable and invalid relationship between the two variables, which have a Kendal Tau-B co-efficient of .239**.

Other contact: Phone/Email

The variables measuring phone/email contact with family/relatives and neighbours clustered together to form a factor but the construct is deemed invalid because the Eigen value was less than 1. The variables have a modest correlation (Tau-B = .226**) and an Alpha = .366, which is not very reliable. The only other variable to load on this factor was that of face-to-face contact with family/relatives but the construct was weak and unreliable[29].

To make a more acute interpretation, I conducted a factor analysis test using only these three variables i.e. the two 'other contact' items and the 'face-to-face contact with family/relatives' item, thus eliminating the effect which any of the surrounding variables may have had on the earlier findings. The results were still weak, failing to extract a factor with and Eigen value greater than 1. Once again, this result is not surprising since people tend to have different patterns of contact with family/relative connections than they would with their neighbours. As such with these items, we are tapping into two distinct structural dimensions of social capital – that of phone/email contact with a) family/relatives and b) neighbours.

[28] The variable measuring face-to-face contact with neighbours formed its own construct or factor with an Eigen value of 1.279 with a structure matrix loading of .974 and accounted for 6.7 percent of total variance in the primary factor analysis test. After testing the sensitivity of this score to the removal of generalised trust and neighbourly trust, the construct still maintained its form. This variable was clearly distinct from all the other items in the analysis.

[29] The question measuring face-to-face contact with family/relatives loaded with the two items measuring phone/e-mail contact with kin and neighbours, in the primary factor analysis, but they formed a construct with an Eigen value of less than one and thus was not considered a valid factor. Furthermore the three variables together scored poorly in the reliability testing, with Alpha = .376.

Formal Associational Activity

A particularly striking observation was that membership in religious organisations did not cluster with any of the other variables and instead was found to be a singular item construct, making up a factor with an Eigen value of 1.022, explaining 5.4 percent of the total variance in the primary factor analysis.

Another finding that warrants special mention is that the variables measuring membership in professional associations, sports clubs, other social clubs and other groups yielded no loadings on any of the factors. These items, I suspected would be highly sensitive to the surrounding variables and I ran a series of factor tests, removing variables which were particularly weakly correlated with these variables, such as the 'contact' items. Throughout these tests the items yielding no loadings.[30]

The following organisation types: 'trade unions', 'groups that do things for the community', 'local self-help organisations', 'neighbourhood watches', 'groups concerned with local matters' and 'political organisations' all loaded on the same factor, with an Eigen value of 1.405, explaining 7.5 percent of the total variance in the primary factor analysis. An analysis of the correlation scores between these six items, suggests that respondents display a similar degree of activity, or rather inactivity across these 6 groups. Running a reliability test with these six items, yielded an Alpha of .560, which is under the criteria of Alpha =.7 for more than three variables. However, these variables are similarly correlated and after running the factor analysis with only these six variables, a single factor was extracted, with an Eigen value of 1.7 and which explained 35 percent of the variance, indicating the validity of these items. With this finding it was deemed acceptable to group these six variables as measuring the same underlying concept of community and socio-political organisational activity.

The overall conclusion from the factor analysis and reliability analysis is that there are a range of clearly distinguishable constructs being captured by our

[30] I also tested the effects of removing each of these four items from the primary factor analysis one at a time, and then removing three of them and leaving one of them in the analysis, alternating between the four items to observe how they affect each other, but still none of the items yielded any factor loadings. Based on this, I decided to drop these variables from the next stage of analysis. These groups have very low levels of membership, for each item, more the 80 percent of respondents were recorded as not being a member hereto. This might explain the very weak results noted and perhaps we should try and capture membership to these types of organisations using a different set of items in future. The 'other group' variable had to be dropped from the Factor analysis anyway, because less than 80 percent of respondents responded to this question.

measures of social capital. Thus, we are able to speak about dimensions of social capital. This is the primary indictor that the Putnam/Inglehart assumption that the general interpersonal trust item is an all-encompassing measure of trust, and that associational membership adequately captures the structural component, is not supported in the CAS 2003 dataset. The results indicate that the social capital variables can be grouped into distinct pockets – each one tapping into a unique facet of social capital.

The factors observed are:

1. Interpersonal trust – single item construct
2. Neighbourliness – three item construct
3. Face-to-face contact with family/relatives– single item construct
4. Face-to-face contact with neighbours– single item construct
5. Phone/Email contact with family-relative– single item construct
6. Phone/Email contact with neighbours– single item construct
7. Membership activity in a religious organisation– single item construct
8. Membership activity in a socio-political or community organisation - six item construct

Of the nineteen variables used in the factor analysis, a total of eight constructs were identified. In terms of the single item constructs, this findings may be indicative of weak measures and we could do more in future to build items around these measures in order to strengthen the validity and reliability hereof.

I also noticed that the data clustered in such a way that we can distinguish between various types of social capital. In particular we can distinguish between that which is generalised social capital (generalised trust); bonding social capital (neighbourliness) as well as a more dense form of bonding social capital in terms of the kin-based variables. This may substantiate the view that social capital has a different nature functioning relative the relationship in question. Further analysis of this finding may help us understand the dynamics, distinctions and comparisons between various relationships and different forms of social capital.

5. Conclusion

This paper was written with the intention of offering a descriptive and exploratory analysis of social capital in Cape Town. Beginning with a critical review of the dominant approaches to the study of social capital in political

science, the paper addresses the weaknesses and shortcomings of these approaches and offers a new analytical perspective on social capital.

The dominant theoretical and analytical approaches to the study of social capital are useful because they allow us to speak about the extent of general interpersonal trust in society as well as make comparisons between societies in terms of trust. We care to know about general interpersonal trust because it is a productive resource and it has been linked a range of politically and socially beneficial outcomes. Trusting societies are likely to be more harmonious and citizens are likely to possess the virtues of genuine concern for others, reciprocity and co-operation, creating a more civically minded and political aware social context. Similarly the extent of formal associational activity in a society is said to tell us about the degree of social engagement and tolerance, since associations are seen as appropriate contexts for the formation of cross-cutting ties and the development of open-minded attitudes as well as co-operative behaviour[31]. These theoretical conclusions seem to provide a simplistic understanding of social capital and its outcomes, as though the links are clear and equally applicable in each context. But there are problems with this approach. Too much interpretative power is placed on the simple measures of general interpersonal trust and formal associational activism and social capital is far more complex than is readily assumed.

While I agree that social capital matters, I question the manner in which social capital is predominantly studied and interpreted as a determinant of democratic stability. I address this concern by critically assessing the dominant approaches to the study social capital in political science, focusing on the 'social-psychological approach'[32]. I first comment on the assumed situational consistency of interpersonal trust and the treatment of trust as an unvarying personality trait of the individual. I argue that trust varies not only over time, but also by context. Individuals adapt their level of trust to suite their circumstances and are likely, for example, to trust their closest relations more than they do strangers or people who are mere acquaintances. The analysis of responses to the WVS general interpersonal trust item does not afford us insight into trust as it may vary in this way. Thus we have little knowledge of how trust between members of closer circles, such as friends and neighbours, shape and develop the types of social skills often attributed to general impersonal trust such as reciprocity, civic mindedness and co-operation. On a more technical note, the widely used WVS measure of trust may be unreliable because the use

[31] These theoretical summarisations are based on the writings of Putnam (1993, 1995, 1998), Inglehart (1990,1997), Rose (1998), Norris (2000) and Newton (2000).
[32] As discussed and defined in Rose (1998).

of the double-negative can make interpretation confusing for respondents and the forced-choice structure offers no scaled set of response options.

While trust and networks are assumed (by Putnam, 2000 and Inglehart, 1997) to be intricately intertwined concepts, there is no clear consensus on the direction of this relationship. Regardless of this dilemma, empirical findings do not support the hypothesis that general interpersonal trust and formal networks of associations are linked in either direction. This may be attributed to the overly simplistic measures used to inform our understanding of a rather complex relationship between trust in others and our propensity to forge bonds of association.

The outcomes of networks and trust are confusingly similar and it is expected that together these two components inform us about the stock of social capital and prospects for democracy in society. But the interpretation of trust and networks as intertwined predictors of similar outcomes does not help us understand the distinct consequences linked to networks, and the manner in which these may differ from consequences linked to trust. For example, South Africa's low levels of trust but high levels of associational activism (based on WVS findings) cannot be explained by the Putnam/Inglehart theory which suggests that these two variables are positively related to each other. These are important distinctions to make and I argue that there is some benefit in treating the facets of social capital as distinct.

With these considerations in mind, I proposed an approach to social capital which encompasses other facets such as trust and reciprocity between neighbours as well as engagement with neighbours and kin relations. In this way we might gain a more acute perspective on people's attitudes towards trust in different groups of people and how these are linked to certain outcomes. My proposal required empirical support and in order to investigate the dimensionality and consequences of social capital in Cape Town, I proceeded to analyse the CAS 2003 data.

The CAS 2003 data was used to answer two important analytical questions. The first question relates to the stock of social capital in Cape Town. The analysis revealed that the level of general interpersonal trust is low, a finding which is in line with what we know about interpersonal trust in South Africa, from other surveys such as the Afrobarometer and WVS. Neighbourly trust, captured in the neighbourliness construct, is significantly higher in Cape Town than general interpersonal trust and this descriptive finding was the primary indication that trust is a varying and situational concept. While people distrust others generally, the results suggest that neighbours are perceived to be trustworthy and reliable.

Trust is not a static and generalisable quality of the individual and by posing the general trust item in relation to a non-descript group of 'others' we may be losing valuable insight into the dynamics of trust. Similarly we found that people have strong networks of association with their neighbours and enjoy regular contact with their neighbours both in terms of face-to-face engagement and communication by phone or e-mail. Network relations with family and relatives are also upheld by regular contact. While informal networks are maintained by regular contact, levels of formal associational activity are low, with the exception of religious organisations which are relatively well attended.

How are these findings to be interpreted? Well, theory suggests that low levels of general interpersonal trust and low levels of formal associational activism are sufficient information to inform us that social capital in Cape Town is low and thus the prospects for the civic culture and democratic stability are weak. However, having probed other dimensions of social capital it is clear that the picture is more complex. Indeed, general interpersonal trust and formal associational activity are low, but the level of neighbourliness is high and respondents have strong networks of informal association with neighbours and kin. While I agree that formal organisations play an important role in civic society, they do not provide the complete picture of networking. The findings indicate that people are connecting in more informal capacities, an outcome which may be linked to the opportunity cost of associational membership, such as time and money. Alternatively, there may be a lessened need to join formal associations such as street committees or neighbourhood watch organisations because local communities are sustaining their own welfare through informal mechanisms such as generally helping and protecting each other.

My decision to analyse the stock of social capital in terms of distinct facets rested on the hypothesis that social capital is indeed a multi-faceted concept. I was compelled to test this hypothesis and by applying Factor and Reliability Analyses to the CAS 2003 data I observed distinct dimensions of social capital. Interestingly, the variables clustered into groupings which match to some degree, the theoretical groupings of bridging and bonding social capital. Respondents distinguished between trust in others generally (bridging social capital) and trust in neighbours (a form of bonding social capital). Furthermore, networks clustered in terms of formal associations (which are linked to bridging social capital) and neighbourhood networks were distinguished from kin-based networks, suggesting that a deeper form of bonding social capital may be present. A few significant conclusions can be drawn from these results. Firstly, the results suggest that social capital is multi-dimensional concept, made up of a range of distinct constructs. Secondly, when analysing social capital, we need to first be specific about which aspects we are interested in understanding and then

design our measures accordingly. While CAS 2003 was a useful instrument for exploring dimensionality, there is significant room for improvement in its measures. In terms of the single item constructs, we can do more in future to build around these items so as to develop stronger, more robust indicators of these concepts. Certain measures which were dropped from the analysis, because of their weak validity and reliability, also need to be reviewed and developed further.

While international trends in the study of social capital entail conceptualising and measuring social capital as a two-dimensional concept, evidence from the CAS 2003 data suggests that there are many unexplored avenues of social capital which may offer useful insight into other aspects of trust and relational activity. We have little reason to believe that it is sufficient to rely on the general interpersonal trust and associational membership items to inform our understanding the quality of social relations in a given context and while CAS 2003 by no means covers a exhaustive range of dimensions of social capital it certainly helps in providing a basis for encouraging and promoting a multi-dimensional approach to studying social capital. Building on the current descriptive findings, the next stage of this analysis relates to the consequences of social capital. These findings are documented in a separate paper, which will offer an explanatory analysis of the manner in which social capital can be linked to a host of hypothesised outcomes such as tolerance of diversity, civic commitment and political participation.

References

Afrobarometer Surveys and Questionnaires, various. [Online].Available: http://www.afrobarometer.org [2005, Jan 22]

Aldridge, S., Halpern, D & Fitzpatrick, S. 2002. *Social Capital: A Discussion Paper*. London: Performance and Innovation Unit.

Almond, G. & Verba, S. 1963. *The Civic Culture: Political Attitudes and Democracy in Five Nations.* Princeton: Princeton University Press.

Baku, E. & Smith, M. 1998. "Loan Delinquency in Community Lending Organizations: Case Studies of NeighborWorks Organizations." *Housing Policy Debate*. 9 (1):151-175.

Bjornskov, C. & Svendsen, G.T. 2003. "Measuring social capital: Is there a single underlying explanation?" *Aarhus School of Business, Working Paper* 03-5. Aarhus: Department of Economics.

Bothwell, S., Gindroz, R. & Lang, R.E. "Restoring Community through Traditional Neighbourhood Design: A Case Study of Diggs Town Public Housing." *Housing Policy Debate.* 9(1): 89-189.

Bourdieu, P. 1986. "The forms of capital". In *Handbook for Theory and Research for the Sociology of Education*, ed. J. G. Richardson.

Briggs, X. 1998. "Brown kids in White suburbs: housing mobility and the many faces of social capital." *Housing Policy Debate*. 9(1).

Bullen, P. & Onyx, J. 2000. Measuring Social Capital in Five Communities in New South Wales. [Electronic]. Available from Management Alternatives at http://www.map1.com.au/A2.htm [2004, Aug 12]

Burns, J. 2004. "Race and Trust in Post-Apartheid South Africa". *CSSR Working Paper* No.78. Cape Town: Centre for Social Science Research.

Centre for the Study of Violence and Reconciliation. "Crime Statistics". [Online]. Available: http://www.csvr.org.za/papers/papstats.htm [2005, May 28].

Coleman, J.S. 1988. "Social Capital in the Creation of Human Capital". *American Journal of Sociology*.94: S95-S120. [Electronic].Available from Jstor at http://www.jstor.org/ [2004,Jul 24]

Coleman, J.S. 1990. *The Foundations of Social Theory.* Cambridge, Mass: Belknap Press.

Corrigan, P. & Miller, C. 1999. *Social Capital: the Basic Building Block of Social Cohesion*. Office for Public Management: Management Briefing. [Online]. Available: http://www.opm.co.uk [2005, Feb 25]

Cox, E. & Caldwell, P. 2000. "Making Policy Social". In *Social Capital and Public Policy in Australia*. ed. I. Winter, Melbourne, Australia: Institute of Family Studies.

Cox, E. 1995. A Truly Civil Society. *The 1995 Boyer Lectures: Lecture 1-Broadening the Views*. 7 November 1995, Broadcast on Radio National.1-7. [Online]. Available: http://www.ldb.org/boyer11.htm [2004, Sep 2]

De Villiers, S. 2001. *A People's Government. The People's Voice*. Cape Town: The Parliamentary Support Programme.

DeFilippis, J. 2001. "The Myth of Social Capital in Community Development." *Housing Policy Debate*. 12(4):781-806.

Delhey, J & Newton, K. 2003. "Who Trusts?: The origins of social trust in seven societies." *European Societies*. 5(2): 93-137

Diekmann, A. & Voss, T. 2002. Social Norms and Reciprocity. *Paper presented on the session: Solidarity and social norms-models and mechanisms.* Sektion Modellbildung und Simulation, Leipzig.

Dominguez, S & Watkins, C. 2003. "Creating Networks for Survival and Mobility: Social Capital Among African-American and Latin-American Low-Income Mothers." *Social Problems.*50(1):111-135.

Etounga-Manguelle, D. 2000. "Does Africa Need a Cultural Adjustment Program?". In *Culture Matters: How Values Shape Human Progress*. eds. L.E. Harrison. & S.P. Huntington. New York. Basic Books

Fedderke, J. & Klitgaard, R. 1998. "Economic Growth and Social Indicators: An Explanatory Analysis". *Economic Development and Culture Change.* 46(3):455- 490.

Fedderke, J., De Kadt, R. & Luiz, J. 1999. "Economic growth and social capital: A critical reflection". *Theory and Society.* 28:709-745.

Field, A. 2000. *Discovering Statistics using SPSS for Windows*. London: SAGE Publications Ltd

Fine, B. 2003. 'Social Capital for Africa'. In *Transformation*. 53 (2003)

Fox, J. 1997. "Policy Arena: The World Bank and Social Capital: Contesting the Concept in Practice". *Journal of International Development*. 9(7):963-971

Frank, J.2004. *Making Social Capital Work for Public Policy*. Policy Research Initiative. [Online]. Available: http://policyresearch.gc.ca/page.asp?pagenm=v6n3_art_02 [2005, May 28].

Fukuyama, F. 1995. *Trust: The Social Virtues and the Creation of Prosperity*. New York: Free Press.

Fukuyama, F. 1999. Social Capital and Civil Society. *Prepared for delivery at the IMF Conference on Second Generation Reforms* .October 1, 1999, The Institute of Public Policy, George Mason University.[Online]. Available: http://www.imf.org/external/pubs/ft/seminar/1999/reforms/fukuyama.htm [2004, May 11]

Fukuyama, F. 2000. "Social Capital". In *Culture Matters: How Values Shape Human Progress*, eds. L. E. Harrison & S.P. Huntington. New York: Basic Books.

Gibson, J. 1992. "Alternative Measures of Political Tolerance: Must Tolerance Be "Least-Liked"?" *American Journal of Political Science*. 36(2):560-77.

Giorgas, D. 2000. "Community formation and Social Capital in Australia". *Paper delivered to the 7th Australian Institute of Family Studies Conference.* 25 July 2000, Sydney Convention and Exhibition Centre, Darling Harbour Sydney. 1-15.

Granovetter, MS. 1973. "The Strength of Weak Ties". *American Journal of Sociology*. 78(6):S1360-S1380. [Electronic].Available from Jstor at http://www.jstor.org/ [2004,Jul 24]

Graycar, A. 1999. "Crime and Social Capital." *Australian Crime Prevention Council*. [Online]. Available: http://www.aic.gov.au/conferences/other/graycar_adam/1999 [2005, Feb 24]

Grootaert, C & Narayan, D. *et al*. 2004. "Measuring Social Capital." *Social Capital Initiative, Working* Paper No.18. Washington: World Bank

Grootaert, C. 1998. "Social Capital: The Missing Link?" In *Social Capital Initiative, Working Paper* No. 3. Washington : World Bank.

Hardin, R. 1993. "The Street-level Epistemology of Trust". *Politics and Society*, 21 (12): 505-529

Hardin, R. 2003. Social Capital and Trust. New York University.[Online]. Available: http:www.cide.edu/programas/Paper_Hardin.pdf [2004, October 12].

Harriss, J and De Renzio, P. 1997. “Policy Arena: ‘Missing Link’ or Analytically Missing?: The Concept of Social Capital- An Introductory Bibliography Essay.” *Journal of International Development*: 9(7):919-937.

Healy, T. 2003. *Social capital: Challenges for its Measurement at the International Level*. UCD, Ireland: Institute for the Study of Social Change. Workshop: Social Capital and Economic Development.

Hjollund, L & Svendsen, G.T. 2000. *Social Capital: A Standard Method of Measurement*. Denmark: Department of Economics, The Aarhus School of Business.

Holm, A. 2004. A (Social) Capital Idea: Making Development Work, *Harvard International Review*. 24-27. [Online]. Available: http://nir.harvard.edu/articles/1185 [2004, Aug 12]

Inglehart, R. 1990. *Culture Shift in Advanced Industrial Society*. Princeton: Princeton University Press

Inglehart, R. 1997. *Modernization and Postmodernization: Cultural, Economic, and Political change in 43 Societies.* Princeton: Princeton University Press.

Inglehart, R. 2000. “Culture and Democracy”. In *Culture Matters: How Values Shape Human Progress*. eds. L.E. Harrison. & S.P. Huntington. New York : Basic Books.

Inglehart, R., Basañez, M & Moreno, A. 1998. *Human Values and Beliefs: A Cross-Cultural Sourcebook*. Ann Arbor: The Michigan University Press.

Keswell, M. 2003. “Social Networks, extended families, and consumption smoothing: Field evidence from South Africa.” *CSSR Working Paper* No. 58. Cape Town: Centre for Social Science Research.

Knack, S and Keefer, P. 1997 “Does social capital have an economic payoff? A cross-country investigation.” *Quarterly Journal of Economics*. 112 (4): 251-268.

Krishna, A. & Uphoff, N. 1999. “Mapping and Measuring Social Capital: A Conceptual and Empirical study of collective action for conserving and developing Watersheds in Rajasthan, India.” In *Social Capital Initiatve,*Working *Paper* No. 13. Washington : World Bank.

Landman, J.P. 2004. “Social capital: a building block in creating a better global future”. *Foresight.* 6 (1): 38-46.

Lang, R.E & Hornburg, SP. 1998. “Editor’s Introduction: What is Social Capital and Why is it important to Public Policy?” *Housing Policy Debate*. 9 (1).

Lipman, A. 2003. ‘Community Participation - hope and reality’. In *Transformation*, 53 (2003)

Lipset, S.M & Lenz, G.S. 2000. “Corruption, Culture, and Markets.” In *Culture Matters: How Values Shape Human Progress*. eds. L.E. Harrison. & S.P. Huntington. New York : Basic Books.

Lombard, K. 2004. “Report of the Third Round of the SA Reconciliation Barometer Survey.” Institute for Justice and Reconciliation. Rondebosch: Institute for Justice and Reconciliation.

Mandela, N. 1995. *Nelson Mandela’s Speech at the launch of Masakhane campaign*. [Online]. Available: http://www.polity.org.za/html/govdocs/speeches/1995/sp0225.html [2004, Sep 2]

Mandela, N. 1996. *Opening Address by President Nelson Mandela to the third session of Parliament*. [Online]. Available: http://www.anc.org.za/ancdocs/history/mandela/1996/sp960209.html [2004, Sep 2]

Mandela, N. 1998. *Speech by President Mandela during the Masakhane Focus Week*. [Online]. Available: http://www.anc.org.za/ancdocs/history/mandela/1998/nm1014.htm [2004, Sep 2]

Mattes, R & Bratton, M. 2003. “Learning about democracy in Africa: Awareness, performance, and experience.” *CSSR Working Paper* No. 48. Cape Town: Centre for Social Science Research.

Mattes, R., Bratton, M. & Davids, Y.D. 2002. “Poverty, Survival and Democracy in Southern Africa”. *CSSR Working Paper* No. 27. Cape Town: Centre for Social Science Research.

Mbeki, T. 1998. Statement of Deputy President Thabo Mbeki at the opening of the debate in the National Assembly, on “Reconciliation and Nation Building”. [Online]. Available: http://www.anc.org.za/ancdocs/history/mbeki/1998/sp980529.html [2004, Sep 2]

Mihaylova, D. 2004. “Social Capital in Central and Eastern Europe: A Critical Assessment and Literature Review.” Budapest: Center for Policy Studies, Central European University.

Mishler, W. & Rose, R. 1997. “Trust, Distrust and Scepticism: Popular Evaluations of Civil and Political Institutions in Post-Communist Societies”. *Journal of Politics*. 59(2): 418-51.

Montaner, C.A. 2000. “Culture and the Behavior of Elites in Latin America.” In *Culture Matters: How Values Shape Human Progress*. eds. L.E. Harrison. & S.P. Huntington. New York: Basic Books.

Mottiar, S. and White, F. 2003. “Co-production as a form of service delivery: Community policing in Alexandra Township”. *Social Policy Series, Research Report* No. 101. Johannesburg: Centre for Policy Studies.

Narayan, D. 1999. *Bonds and Bridges: Social capital And Poverty*. Washington: World Bank.

Newton, K. 2001. “Trust, Social Capital, Civil society, and Democracy”. *International Political Science Review*. 22 (2): 201-214.

Newton, K. 2000. “Social and Political Trust in Established Democracies”. In *CriticalCitizens: Global Support for Democratic Governance*, ed. P. Norris . Oxford: Oxford University Press.

Norris, P. 2002. “Social Capital and Civic Society” and “Traditional Mobilizing Agencies: Unions and Churches”. In *Democratic Phoenix: Reinventing Political Activism.* Cambridge: Cambridge University Press.

Oldfield, S.2002. “Embedded Autonomy and the Challenges of Developmental Local Government”. In *Democratising Local Government: The South African Experiment.* eds S. Parnell, E. Pieterse, M. Swilling & D. Wooldridge. Lansdowne: University of Cape Town Press.

Paldam, M. 2000. “Social capital: one or many?: Definition and measurement.” *Journal of Economic Surveys*. 14(5): 629-653.

Pharr, S.J & Putnam, R.D. 2000. *Disaffected Democracies: What’s troubling the Trilateral countries?* New Jersey: Princeton University Press.

Piazza-Georgi, B . 2000. “Human and Social Capital in Soweto in 1999”. *Economic Research Southern Africa, Policy Paper* No.4. Johannesburg: Economic Research Southern Africa.

Piazza-Georgi, B. 2000. “The role of human and social capital: extending our understanding”. *Economic Research Southern Africa, Policy Paper* No.11. Johannesburg: Economic Research Southern Africa.

Piazza-Georgi, B. 2001. “Forms of social capital in present-day Soweto: a factor analysis of household survey data”. *Economic Research Southern Africa, Policy Paper* No.18. Johannesburg: Economic Research Southern Africa.

Portes, A.1998. “Social Capital: Its origins and applications in Modern Sociology.” *Annual Review of Sociology*. 24:1-24.

“Principal Components and Factor Analysis”, *StatSoft* 2003. [Online]. Available:http://www.statsoftinc.com/textbook/stfacan.html [2004, April 18].

Putnam, R. 1993. The Prosperous Community: Social Capital and Public Life. *The American Prospect.* 4 (13):1-7. [Electronic]. Available: http://www.prospect.org/print/v4/i13/putnam_r.html

Putnam, R. 1995. “Bowling Alone: America’s Declining Social Capital.” *Journal of Democracy*. 6(1): 65-78

Putnam, R. 2000. *Bowling Alone: The Collapse and Revival of American Community*. New York: Simon & Schuster.

Putnam, R. with Leonardi, R. & Naneeti, R. 1993. *Making Democracy Work: Civic Traditions in Modern Italy*. New Jersey : Princeton University Press.

Putnam, R.D. 1995. “Tuning in, Tuning Out: The Strange Disappearance of Civic America.” *Political Science and Politics.* 28(4):644-683

Putnam, RD. 1998. “Forward”. *Housing Policy Debate.* 9(1): v-16.

Putzel J. 1997. “Policy Arena: Accounting for the ‘Dark Side’ of Social Capital: Reading Robert Putnam on Democracy”. *Journal of International Development*: 9(7) : 939-949.

Rose, R. 1998. “ Getting things done in anti-modern society: Social Capital and Networks in Russia”, *Studies in Public Policy, Working Paper* No. 304. Glasgow: Centre for the Study of Public Policy.

Rose, R. 2000. *Measures of Social Capital in African Surveys.* Centre for the Study of Public Policy. [Online]. Available: http://www.socialcapital.strath.ac.uk/catalog20_0.html [2005, Feb 22]

Rose, R. 2002. “Coping with organizations: Networks of Russian Social Capital.” *Centre for the Study of Public Policy (CSPP)*. A project funded by the Leverhulme Trust. [Online]. Available: http://www.socialcapital.strath.ac.uk/catalog31_0.html. [2005, Jan 28]

Rose, R. 2004. “Political Trust and Governance Capital”. *Council of Europe.* Geneva Meeting, 11-12 February 2004.

Rummel, R.J. 2004. “Understanding Factor Analysis”, *Factor Analysis*. [Online]. Available:http://www/mega.nu:8080/ampp/rummel/ufa.htm[[2004, April 18].

Saegart, S. & Winkel, G. 1998. “Social Capital and the Revitalization of New York City’s Distressed Inner-City Housing.” *Housing Policy Debate.* 9(1):17-24

Seekings, J. , Alexander, K. , Jooste, T. & Matzner, I. 2004. “The 2003 Cape Area Study (CAS3): A user’s guide.” *CSSR Working Paper* No.61. Cape Town: Centre for Social Science Research.

Smith, L., Mottiar, S. and White, F. 2003. “Testing the limits of market-based solutions to the delivery of essential services: The Nelspruit Water Concession”. *Social Policy Series, Research Report* No. 99. Johannesburg: Centre for Policy Studies.

Sobel, J. 2002. “Can We Trust Social Capital?” *Journal of Economic Literature.* XL:139-154

Stone, W. & Hughes, J. 2001. “Sustaining Communities: An empirical investigation of social capital in regional Australia”. *Australian Institute of Family Studies: Paper presented to SEGRA 2001 Fifth National Conference.* 10-12 September 2001, Townsville.

Stone, W. & Hughes, J. 2002. “Measuring social capital: Towards a standardised approach*”. Australian Institute for Family Studies: Paper presented at the 2002 Australasian Evaluation Society International Conference.* October/November 2002-Wollongong Australia.

Stone, W. & Hughes, J. 2002. “Social capital: Empirical meaning and measurement validity.” *Australian Institute of Family Studies, Research Paper* No. 27. Melbourne: AIFS.

Stone, W. 2001. “Measuring Social Capital: Towards a theoretically informed measurement framework for researching social capital in family and community life.” *Australian Institute of Family Studies, Research Paper* No. 24. Melbourne : AIFS.

Stone, W., Grey, M. & Hughes, J. 2003. “Social capital at work: How family, friends and civic ties relate to labour market outcomes.” *Australian Institute of Family Studies, Research paper* No. 31. Melbourne : AIFS.

Svendesen, T. & Bjornskov, C. 2004. *Measuring social capital: is there a single underlying explanation?* Denmark: Department of Economics, The Aarhus School of Business.

Tapscott, C. 2005. “Democracy, Social Capital and Trust Relations in Local Government in South Africa”. *Project: Policy Management, Governance and Poverty Alleviation in the Western Cape,* Occasional Paper No. 1. Cape Town: University of Western Cape.

Temkin, K. Rohe, W. R. 1998. “Social Capital and Neighbourhood Stability: An Empirical Investigation.” *Housing Policy Debate*. 9(1):61-88.

Thomas, L. 2002. “Social capital and planning: insights from social capital theory and a South African case study”. *Paper to be presented at Planning Africa 2002*.18-20 September 2002, Health and Development Research Group, Medical Research Council South Africa.

University of Newcastle. “How to Perform and Interpret Factor Analysis using SPSS”. *University Computing Service*. [Online]. Available: http://www.ncl.ac.uk/ucs/statistics/docs/factoranalysis.html [2004, April 18].

Verba, S., Scholzman, K.L & Brady, H.E. 1995. *Voice and Equality: Civic Voluntarism in American Politics.* Massachusetts: Harvard University Press

Widner, J & Mundt, A. 1998. “Researching Social Capital in Africa.” *Africa*. 68(1):1-24.

Winter, I. 2000. “Towards a theorised understanding of family life and social capital.” *Australian Institute of Family Studies*, *Research Paper* No. 21. Melbourne : AIFS.

Woolcock, M. & Narayan,D. 2000. “Social Capital: Implications for Development Theory, Research, and Policy.” *The World Bank Research Observer*. 15(2):225-249.

Woolcock, M. 1998. Social capital and economic development: Toward a theoretical synthesis and policy framework. *Theory and Society*. 27:151-208.

World Values Survey. [Online]. Available: http://www.worldvaluessurvey.org/organization/background.html[2004, Nov 2]

Zuern, E. 2003. ‘Social Capital and Modernity’ in *Transformation*, 53 (2003)

Appendix A

Analytical Techniques: Factor and Reliability Analyses

Cape Area Study 2003 has a sample of 588 individuals, all of whom are over 18 and South African citizens, from the Cape Metropolitan Area. The data was analysed at the individual level, using SPSS.

Factor and Reliability analyses were used to identify dimensions of social capital as well as to test the quality of data in terms of validity and reliability. Validity testing is the assessment of whether or not a set of measures actually measure what they say they do, while the reliability testing assesses the consistency of responses to a certain set of questions. Factor Analysis tests construct validity and Reliability analysis was used to test inter-item consistency. A brief description of each approach is provided below.

Factor Analysis

While correlations between variables are useful for providing insight into the strength of associations, a more sophisticated technique is needed for the purpose of determining complex patterns of correlations among variables. Factor analysis serves this purpose since it identifies clusters in large sets of variables, and establishes a set of weights which are assigned to each variable in the cluster i.e. the extent to which each variable loads on the particular factor (Piazza-Georgi, 2001:8).

Factor analysis is useful for summarising the correlation between two or more variables, and thus reducing them to a single factor. For example, the correlation between two variables can be summarised in a scatter plot. A regression line could then be fitted to represent the 'best' summary of the linear relationship between the variables. By defining a variable that would approximate the regression line in the scatter plot representing the correlation between these two variables, we are able to capture the fundamental nature of the two items, thus reducing the them to a single factor. Respondent's single scores on this new factor could then be used in future to represent the core or essence of two items. This new item is the linear combination of the two variables, which we can weight equally in the generation of a single factor (StatSoft, 2003). The grouping of items or measures in this category depends in part on the strength of correlation between these items as well as the condition

that these items are not so highly correlated with other items related to other categories of the social concept, to imply that they are measuring this instead. The logic behind this is that items measuring the same thing should correlate more highly with each other than with other items in the analysis (Rummel, 2004).

Factor Matrix loadings are interpreted as follows, if the loading is .5 this = 5^2 meaning that 25% of the variance of that variable is explained by the factor. Thus, the stronger the factor loading, the stronger the construct validity of the set variables in the factor are said to be. The Eigenvalue of the factor is an immediate indicator of how useful each factor is, and the higher the Eigenvalue the more of the total variance of its components is explained by that factor. An Eigenvalue of 1 is usually the criteria for accepting the factor as meaningful. If the Eigenvalue is less than one it means that the factor does not explain more of the variance than any of the single variable would (Piazza-Georgi, 2001:10-11, 13).

For factor analysis, SPSS was set as follows:

- Extraction method: Maximum likelihood
- Rotation: Direct Oblimin (Oblique)

For instances when a single factor is extracted, I analysed the Factor Matrix loadings, since no rotation has taken place. When more than one factor was extracted and rotation has taken place I interpreted the Structure Matrix factor loadings.

Before interpreting the data using these techniques, we need to set certain criteria for acceptance of the results as indicative of having strong construct validity and reliability, such that we are able to distinguish between strong and weak results.

For Factor Analysis the criteria for assessment are such that:

- Eigen value of more than 1 will be considered as valid
- Suppress factor loadings of less than .3
- Factor loadings of .4 or below are considered weak
- Factor loadings between .4 and .6 considered moderate
- Factor loadings of .6 or more considered strong

Reliability Analysis

Reliability testing involves the analysis of the Cronbach's Alpha co-efficient to test the internal consistency of responses to a set of questions. Generally a reliability score of .80 indicates a strong internal consistency, but for newly developed measurement tools, (such as the social capital measurement items used in CAS) a reliability score of .60 is considered acceptable. A high value Alpha is usually used to infer that the measurement tool constructed is measuring a single underlying construct. As a general rule, Alpha should not be computed if less than 85% of the sample have not responded, since in cases where most respondents have not completed all the items on the measurement tool, a spuriously high Alpha may be obtained (StatSoft, 2003).

Testing for reliability is an important step in questionnaire design and development and when the Alpha falls below an acceptable level, further investigation needs to be done to determine the problem, which may be due to unclear wording or inappropriate use of terms within the question. Researchers also have to be aware of respondents going into 'response set' mode, whereby a battery of questions is designed such that respondents can develop a pattern of consistent responses to the set of questions, without giving much thought or distinguishing between each individual question.

For Reliability Analysis the criteria is that

- Testing is based on Cronbach's Alpha co-efficient
- Analysis is only undertaken when more than 80% of the sample have responded to the set of questions.
- Alpha co-efficient of .6 or more for two variables is considered an acceptable indicator of consistency.
- Alpha co-efficient of .7 or more for three or more variables is considered an acceptable indicator of consistency.

Appendix B

Variable Recodes and Summary Statistics

For the validity and reliability testing as well as correlation analyses, variables were recoded for consistency in terms of the directionality of the measures. This was to ensure that for all the items, a higher score meant 'more' social capital, in terms of what the item is measuring.

All 'Don't Know' responses were recorded as Missing. Missing variables were dropped from factor, reliability and correlation analyses.

Recodes : Social Capital

General Trust Variable

Original Format	Recoded Format
1 = Strongly agree	1 = Strongly disagree
2 = Agree	2 = Disagree
3 = Neither	3 = Neither
4 = Disagree	4 = Agree
5 = Strongly disagree	5 = Strongly agree

Neighbourliness

Original Format	Recoded Format
1 = Strongly agree	1 = Strongly disagree
2 = Agree	2 = Disagree
3 = Neither	3 = Neither
4 = Disagree	4 = Agree
5 = Strongly disagree	5 = Strongly agree

Face-to-face contact with 1) Family and Relatives and 2) Neighbours

Original Format	Recoded Format
1 = Everyday	1 = Less than several times a year
2 = Several times a week	2 = Several times a year
3 = Several times a month	3 = Several times a month
4 = Several times a year	4 = Several times a week
5 = Less than several times a year	5 = Everyday

Phone/Email contact with 1) Family and Relatives and 2) Neighbours

Original Format	Recoded Format
1 = Everyday	1 = Less than several times a year
2 = Several times a week	2 = Several times a year
3 = Several times a month	3 = Several times a month
4 = Several times a year	4 = Several times a week
5 = Less than several times a year	5 = Everyday

Associational Activity

Original Format	Recoded Format
1 = Leader	1 = Not a member
2 = Active Member	2 = Inactive member
3 = Inactive Member	3 = Active member
4 = Not a member	4 = Leader

Summary Statistics: Social Capital Variables

Variable	N	Mean	Std. Dev.	Min	Max	% Missing
General Trust	584	2.67	1.18	1	5	< 1%
Neighbours Helpful	573	3.74	0.93	1	5	< 1%
Neighbours stop break-in	568	3.90	0.93	1	5	< 1%
Neighbours watch your house	575	3.93	0.91	1	5	< 1%
Visit/Speak to neighbours	585	3.88	1.45	1	5	< 1%
Phone/Email neighbours	582	1.60	1.18	1	5	< 1%
Visit/Speak to fam/relatives	587	3.99	1.06	1	5	< 1%
Phone/Email fam/relatives	588	3.20	1.46	1	5	0 %
Active-Religious Org.	586	2.29	0.89	1	4	< 1%
Active-Trade Union	564	1.20	0.57	1	4	< 1%
Active-Prof./Bus. Assoc.	564	1.13	0.49	1	4	< 1%
Active-Community Org.	571	1.38	0.78	1	4	< 1%
Active-Local self-help Org.	568	1.27	0.62	1	4	< 1%
Active-Neighbourhood watch	568	1.20	0.55	1	4	< 1%
Active-Local Group, PTA etc	573	1.21	0.58	1	4	< 1%
Active-Sports Club	566	1.40	0.80	1	4	< 1%
Active-Another social club	571	1.20	0.57	1	4	< 1%
Active-Political party	570	1.26	0.59	1	4	< 1%
Active-Other	23	2.52	0.85	1	4	96 %