

# Measuring social capital

Towards a theoretically informed measurement framework for researching social capital in family and community life

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## About the author

**Wendy Stone** is a Research Fellow within the Family and Society Program at the Australian Institute of Family Studies where she is managing the Institute's *Families, Social Capital and Citizenship* project – a project designed to test the 'social capital thesis' and examine the role of social capital in mediating family engagement in the economy, community and polity. As well, Wendy is a doctoral candidate in the Sociology Program at the University of Melbourne, where she is undertaking research on the role of social networks in mediating poverty.

## Other project publications

Stone, W. and Hughes, J. (2000) 'What role for social capital in family policy - and how does it measure up?', *Family Matters* No. 56, pp. 20-27.

Stone, W. (2000) 'Social Capital, social cohesion and social security', Paper to 'Social security in the global village', the Year 2000 International Research Conference on Social Security, Helsinki, 25 – 27 September. <http://www.issa.int/pdf/helsinki2000/topic4/2stone.pdf>

Winter, I. (2000) *Family Life and Social Capital: towards a theorised understanding*, Working Paper No. 21, Australian Institute of Family Studies, Melbourne. <http://aifs32/institute/pubs/winter4.html>

Winter, I. (ed.) (2000) *Social Capital and Public Policy in Australia*, Australian Institute of Family Studies, Melbourne.

Saunders, P. and Winter, I. (1999) Institute holds conference: social capital and social policy, *Family Matters* No. 52, Autumn

A theme issue of *Family Matters* No. 50, Winter 1998, which focused upon social capital and social exchanges.

## Abstract

In Australia, as in other nations, 'social capital' is being looked to as a means of stemming the tide of perceived community decline and widespread distrust associated with it. The increasingly central role that social capital plays in Australian public policy has fuelled demand for empirical understandings of it. Yet, demand for empirical measures of social capital exceeds supply.

Within this context the Australian Institute of Family Studies is undertaking the *Families, Social Capital and Citizenship* project. To inform the Institute project, this paper contributes to the development of clear links between theorised and empirical understandings of social capital by: establishing a theoretically informed measurement framework for empirical investigation of social capital, and; reviewing existing measures of social capital in light of this framework. The paper concludes with a statement of guiding principles for the measurement and empirical investigation of social capital in family and community life.

Where social capital has been measured to date, it has often been done so using 'questionable measures', often designed for other purposes, and without sufficient regard to the theoretical underpinnings of the concept to ensure validity or reliability. This paper will be useful for critiquing and building on the work that has already been done.

# Measuring social capital

## Section 1 – Introduction

In Australia, as in other nations, social capital is being looked to as a means of stemming the tide of perceived community decline and widespread distrust associated with it. It promises hope for the regeneration of benefits – both social and economic – said to come from those interactions among neighbours, citizens and governments which are characterised by strong norms of trust and mutuality. New roles for government and markets, a focus upon the rights and responsibilities of citizens and the formulation of state-market-community partnerships position social capital centrally in current public policy<sup>1</sup>.

The Australian Institute of Family Studies is undertaking the *Families, Social Capital and Citizenship* project to investigate the role of families in the development and sustainability of strong communities, and to identify family circumstances associated with active economic, community and political life. Social capital lies at the core of this project, as it provides a framework for conceptualising and measuring the social resources families can invest in and draw upon in order to actively engage in the communities around them, and address common problems.

Despite its historical roots (for discussion see Putnam 1998; Winter 2000a) and considerable contemporary use, debate has seen the conceptualisation of social capital race ahead of the development of tools for measuring it empirically. The present demand for empirical measures of social capital exceeds supply (Rose 1998: 5). In turn, better understanding of the empirical nature of social capital will promote further conceptual refinement. Public policy, too, cannot aim to facilitate the growth of communities rich in social capital with accuracy until we know, and are able to measure and describe, what such communities look like and what role social capital plays within them.

That there is a gulf between theoretical understandings of social capital and the ways social capital has been measured in much empirical work to date is a criticism which is developed throughout this paper. It is this gulf which leads to empirical confusion about the meaning, measurement, outcomes and relevance of social capital. Paxton (1999: 90) identifies the same problem, noting that previous studies provide little rationale for how measures of social capital connect to theoretical definition. She believes that this has resulted in the use of ‘questionable indicators of social capital’, including single item measures of it, and in inconsistent results. There are many reasons for this gulf, some of which are described below and it is hoped this paper will make a contribution to building a bridge between the understanding of social capital and its measurement.

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1 For an account of the intersection between social capital and Australian policy, see Winter, I. (ed) (2000) *Social Capital and Public Policy in Australia*, Australian Institute of Family Studies, Melbourne.

The aim of this paper is to contribute to the development of clear links between theorised and empirical understandings of social capital. The specific aims of the paper are to establish a conceptually sound and theoretically informed measurement framework for empirical investigation of social capital (both in the Institute's own study, and in other research); and, to review existing measures of social capital in light of this framework, by drawing upon examples of both secondary and primary social capital research conducted to date. By doing so, the paper aims to identify guidelines for the measurement of social capital relevant for the study of families and society.

### ***A note on the measurement rush***

Although not all social capital research has been based on clear definition and theory, much social capital research to date provides a useful starting point to the development of conceptually sound measures.

First are those studies based on secondary analyses. Much social capital research to date falls within this category, yet – not surprisingly – is inherently limited as data gathered originally for purposes other than the study of social capital are unlikely to provide conceptually thorough measures of it. The ad hoc mixture of measures, indicators and outcomes drawn upon in secondary analyses have no doubt contributed to the confusion which exists between social capital theory and measurement, despite providing some early indications of the usefulness of social capital as a concept.

Second are the earliest attempts at primary data collection for the study of social capital. These are fewer in number yet extend what may be learned via secondary analysis as they add sophistication and precision to data collection.

One of the first to pursue the benefits of social capital as a research and development resource was the World Bank. The World Bank's Social Capital Initiative (SCI), designed to define, monitor and measure social capital, was established specifically to 'improve our understanding of [social capital] and suggest ways through which the donor community can invest in social capital and create an enabling environment in which social capital can be strengthened' (World Bank 1998: 3). The SCI and related works inform upon the relationship between social capital and economic prosperity and community development at local and national levels<sup>2</sup>.

Health researchers and community health professionals have also been quick to embrace the potential benefits of social capital, in line with the long-standing recognition of the importance of social support for public health and community wellbeing. In particular, Marshall Kreuter et al (1997, 1999) have developed and refined a series of measurement tools for understanding the effectiveness of community-based health promotion programs in the US, and which inform upon how social capital is manifest in different communities.

Closer to home, following Eva Cox's (1995) promotion of the concept, a number of Australian researchers have embarked on its empirical investigation. Notably, Onyx and Bullen in their quantitative study of *Five Communities in NSW* and related work (1997, 2000) have undertaken what appears to be the first primary data collection of social capital in Australia. Following their lead, a number of projects have also now been conducted, including an Adelaide community health study undertaken by Baum et al (1998, 2000) and a qualitative study of the way 12 Australian households lead their lives, conducted by the Centre for Independent Studies (Stewart-Weeks and Richardson 1998). Other key Australian

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2 For details of the World Bank's Social Capital Initiative, including detailed information about the projects reported on here, see <http://www.worldbank.org/poverty/scapital/>

contributions have investigated aspects of social capital in relation to belief systems (Hughes, Bellamy and Black 1998, 2000) and volunteering (Lyons 2000).

These international and Australian contributions to the measurement of social capital are referred to at relevant points throughout this paper.

It is important to note that the review of social capital measurement presented in this paper refers to measures of a concept which are not long established, and even await empirical testing in some instances. Thus, this review focuses upon how well the measurement of social capital to date informs the conceptual framework developed here. Unlike measurement critiques of more well established concepts, this review is unable to compare standard items or approaches, or to present data in support of one measure over another<sup>3</sup>.

### ***The survey as a vehicle for social capital research***

As stated above, one of the aims of this paper is to inform the measurement of social capital in family and community life for the *Families, Social Capital and Citizenship* project. The *Families, Social Capital and Citizenship* project is designed to examine levels of social capital associated with varying family circumstances and to assess the importance of social capital in shaping patterns of family engagement with the economy, polity and community nation wide. In order to 'map' social capital in this way, the project relies upon a survey instrument to determine the nature and extent of social capital across Australian families and communities.

One of the implications of using the survey as a vehicle for social capital research relates to 'social scale'. By definition, social capital is not restricted to particular social networks of one size or another. The literature identifies social capital in local and other community networks (Putnam 1993; Kreuter 1999), at the level of nation states (Knack and Keefer 1997), and, albeit less commonly, within families (Coleman 1988; Amato 1998; Furstenberg and Hughes 1995; Furstenberg 1996)<sup>4</sup>.

The use of the survey as a vehicle for measuring social capital in family and community life means that the data collected is at the level of an individual. Although individuals might be asked questions about the community, region, or nation they are part of, the social capital of communities (or regions or areas) is then measured by collating information gathered from individuals within those communities, rather than by examining a particular community more directly. This approach provides an indication of the level and distribution of social capital within an area, as well as a detailed picture of social capital in the lives of individuals and families.

In contrast, it is important to note that there are alternate approaches to the measurement of social capital, particularly within specified organisations or communities. These include qualitative research and the study of specific localities, via participant observation, surveys of individuals about the local area, and the collection of local documents and histories<sup>5</sup>. While making valuable contribution to understandings of social capital, these studies are not reviewed in detail in this paper.

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3 This review is primarily concerned with measures of social capital used in social capital research to date. Occasionally, however, relevant ways of measuring components of social capital which have been developed in other types of research are also referred to.

4 For discussion of 'macro' versus 'micro' measures of social capital, see Grootaert (1998) and Knack and Keefer (1997), who propose that macro measures may include social polarisation, group membership and generalised trust, among others.

5 For an example of a mixed methodology approach to the study of social capital within small communities, see for example Kreuter 1999.

### *Structure of the paper*

Section 2 of this paper presents a conceptual framework for the measurement of social capital, which sets out its separate dimensions and their characteristics.

Section 3 then reviews the ways in which dimensions of social capital and their characteristics identified in Section 2 have been measured to date.

The paper concludes with a summary of guidelines for the theoretically informed measure of social capital in studies of families and society.

## **Section 2 – A theoretically informed measurement framework**

In order to achieve theoretical rigour in social capital measurement, a clear understanding of the concept, upon which to base an empirical framework, is essential.

Social capital consists of networks of social relations which are characterised by norms of trust and reciprocity. Combined, it is these elements which are argued to sustain civil society and which enable people to act for mutual benefit (Lochner et al 1998; Winter 2000a); it is 'the quality of social relationships between individuals that affect their capacity to address and resolve problems they face in common' (Stewart-Weeks and Richardson 1998: 2).

Thus, social capital can be understood as a resource to collective action, which may lead to a broad range of outcomes. In his analysis of social capital and family life, Winter (2000a: 2-6) argues that despite some conceptual confusion in the social capital literature, three of the most notable social capital writers each conceptualise social capital in this way, albeit it in relation to differing outcomes, of varying social scale. Bourdieu (1993), Putnam (1993) and Coleman (1988) each understand social capital as a resource to collective action, the outcomes of which concern economic wellbeing, democracy at the nation state level, and the acquisition of human capital in the form of education, respectively<sup>6</sup>.

In measurement terms, understanding social capital as a resource to action leads immediately to the need for empirical clarity about measures of social capital, and measures of its outcomes. It is necessary to recognise empirically that understanding whether or not a social process is at work is different from understanding the consequences of such a process. As Newton (1997: 578) states, social capital 'may indeed generate valuable goods and services ... but we should not assume that it does, and we should not include such goods and benefits as part of the definition'. Similarly, Paxton (1999) draws a distinction between measures of social capital and its outcomes, consistent with the approach taken throughout this paper. This is in distinct contrast, however, to the way social capital has been operationalised in much research to date.

Before defining its key components, the distinction between measures, outcomes and indicators of social capital warrants some attention.

### ***Measures, outcomes and indicators***

Social capital measurement is considerably complicated by the fact that social capital research has frequently relied upon measures of the *outcomes* of

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6 Despite this, there remains some debate about social capital definition. Other authors, for example, argue that by definition social capital includes notions of 'proactivity' (see for example Onyx and Bullen 2000). For discussion of different understandings of social capital, particularly in the Australian context, see Winter 2000.

social capital as *indicators* of social capital itself. A measure of a norm of trust (for example the extent to which a culture within a family group is trusting), is different from a behavioural outcomes of that norm (for example the extent to which family members trust one another to care for one another's children).

Indicators used in social capital research can be classified into 'proximal' and 'distal' groupings. 'Proximal' indicators of social capital are in fact outcomes of social capital related to its core components of networks, trust and reciprocity. Examples of proximal outcomes (or 'indicators') include the use of civic engagement as an indicator of social networks. This approach was made famous in Putnam's (1995) analysis of civic decline in America, which was based upon membership of formal associations and groups. Actions associated with a display of confidence in others, an outcome of a norm of trust (see for example Onyx and Bullen 2000), as well as reciprocal acts or exchanges, an outcome of a norm of reciprocity (see for example Rose 1999), are also used as proximal indicators of social capital.

'Distal' indicators are outcomes of social capital which are not directly related to its key components. Examples of distal indicators, drawn from a study of social capital and health, include: life expectancy; health status; suicide rates; teenage pregnancy; crime rates; participation rates in tertiary education; employment and unemployment rates; family income; marital relationship formations and dissolutions; business confidence; job growth; growth in GDP; and balance of trade (Spellerberg 1997: 43-44). Such indicators are often relied upon with little or no empirical regard to their relationship with measures of social capital, nor even to more proximal social capital outcomes.

Proximal and distal indicators are relied upon frequently in social capital research, particularly in studies reliant upon secondary analyses, where existing data is limited. While useful in some ways, the mixture, use and misuse of indicators in social capital research to date, and lack of theoretical precision used in the selection of indicators, has led to considerable confusion about what social capital is, as distinct from its outcomes, and what the relationship between social capital and its outcomes may be.

Empirical investigations which rely upon indicators of social capital are rarely supported by direct empirical investigation of the relationship between indicators (proximal or distal outcomes) and the core components of social capital. Hence both proximal and distal outcomes may or may not be valid indicators of social capital for this reason<sup>7</sup>. This raises the further tautological problem that research reliant upon an outcome of social capital *as* an indicator of it, will necessarily find social capital to be related to that outcome, without empirical means to explain why, or indeed whether, this is so. Social capital becomes tautologically present whenever an outcome is observed (Portes 1998; Durlauf 1999).

Slippage between measures of social capital, social relations characterised by high levels of trust and reciprocity, and its outcomes (be they proximal or distal) has not only resulted in empirical mayhem in some instances, but has also muddied the way social capital is understood at the conceptual level. In particular, a focus upon outcomes of social capital has fuelled debate over whether collective action resulting in group rather than public good *is* social

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7 In contrast, one of the principle aims of the *Families, Social Capital and Citizenship* project is to directly measure norms of trust and reciprocity within social networks, and link these directly to proximal outcomes which – if found to be valid – may in turn be useful as indicators of social capital in future work.

capital at all<sup>8</sup>. When social capital is understood as a resource to action, such debates are rendered useful only for understanding the consequences of social capital, rather than existence of it per se.

Separating the measure of social capital from its outcomes enables social capital to be positioned unambiguously within any research design, and be understood clearly in relation to its predictors and/or outcomes. A number of studies present social capital as an independent variable, and ask questions about how social capital influences other variables (such as child wellbeing; community development). Other studies aim to determine what it is that leads to the decline or growth of social capital as a dependent variable. Still others adopt measurement designs which see social capital as both dependent and independent in their models (asking, for example, what makes social capital and what is the impact of it on any given outcome?). These are interesting design questions and highlight the diverse interest in social capital, yet have potential to confuse its measurement unless asked within a clear conceptual framework.

A theoretically informed approach to the measurement of social capital is essential to overcoming empirical confusion and enabling proper investigation of social capital as it relates to a range of outcomes. By linking social capital measurement directly to theoretical understandings of the concept, we are able to: first, recognise that social capital is a multidimensional concept comprising social networks, norms of trust, and norms of reciprocity; second, understand social capital properly as a resource to action; and third, empirically distinguish between social capital and its outcomes.

### ***Operationalising social capital***

Once social capital is distinguished from its outcomes, the concept can be operationalised. Starting from an understanding of social capital as networks characterised by norms of trust and reciprocity, the need to identify the structure of social relations between actors, as well as a means of measuring their quality, becomes immediately apparent.

Conceptualising social relations as networks enables us to identify the structure of social relations (for example whether people know one another, and what the nature of their relationship is) as well as their content (for example, flows of goods and services between people, as well as norms governing such exchanges) (Nadel 1957). Network analysis is appropriate for the study of relational data and social network methodologies focus upon the contacts, ties, connections, group attachments and meetings which relate one actor to another and which are therefore not able to be reduced to the properties, or attributes, of individual agents (Scott 1991: 3)<sup>9</sup>. Classical social network analysis in sociology and anthropology is in many ways concerned with those aspects of networks which are necessary to understand social capital, and forms a rich reference for the study of networks in social capital research. Networks may be understood as the 'structural' elements of social capital.

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8 Much has been written about the 'good' that comes from social capital, including whether the fruits of social capital are for public or exclusive group benefit. Some writers have identified the 'dark side', or undemocratic outcome of social capital (Ostrom 1997; Putzel 1997; Portes 1998) such as the consequences of the collective actions of groups such as the Mafia or the Ku Klux Klan. Others (most notably Cox 1997; Cox and Caldwell 2000) suggest that the outcome of social relations rich in norms of trust and mutuality which do not lead to a 'positive' *public* good do not in fact constitute social capital but rather may simply be described as collective action or solidarity (for a detailed discussion of this idea, see Cox and Caldwell 2000).

The 'content' of these networks in social capital terms refers to norms of trust and reciprocity which operate within these structures. Means of measuring norms of trust and reciprocity are less well developed than are measures of the structural characteristics of networks. Measuring norms involves the study of cultures within particular networks, rather than the properties of individuals within those networks, as is described in more detail in Section 3 of this paper.

Table 1 presents the measurable components of social capital. It identifies networks, trust and reciprocity as the key dimensions. The table also presents a range of network characteristics which previous studies indicate may influence the nature and extent of social capital within a given network. Networks, trust and reciprocity presented at Table 1 form the measurable components of social capital and are discussed in more detail throughout the review of their measurement in Section 3, below.

**Table 1. Core dimensions of social capital and their characteristics.**

Structure of social relations: networks	Quality of social relations: norms
<p><b>Type:</b> Informal ↔ formal</p> <p><b>Size/capacity:</b> Limited extensive</p> <p><b>Spatial:</b> Household ↔ global</p> <p><b>Structural:</b> Open ↔ closed Dense ↔ sparse Homogenous ↔ heterogenous</p> <p><b>Relational:</b> Vertical ↔ horizontal</p>	<p><b>Norm of trust</b></p> <ul style="list-style-type: none"> <li>• Social trust               <ul style="list-style-type: none"> <li>–familiar/personal</li> <li>–generalised</li> </ul> </li> <li>• Civic/Institutional trust</li> </ul> <p><b>Norm of reciprocity</b></p> <ul style="list-style-type: none"> <li>• In-kind v in lieu</li> <li>• Direct v indirect</li> <li>• Immediate v delayed</li> </ul>

Source: *Families, Social Capital and Citizenship* project, Australian Institute of Family Studies, 2000.

9 For a discussion of the origins and technical aspects of social network analysis see Scott (1991). In addition, the contemporary use of social network analysis is also useful for informing the measurement of networks in studies of social capital. For an example of contemporary use of social network analysis of the kind relevant to studies of social capital, see for example Bowling's (1997) study of networks and social support which included measures of the following network characteristics:

- *Size*: the number of people maintaining social contact; this can include those who are only called on when needed.
- *Geographic dispersion*: networks vary from those confined by a household, to those in a single neighbourhood, and those that are more widely dispersed. Transport facilities may influence frequency of contact.
- *Density/integration*: the extent to which network members are in each other's networks.
- *Composition and member homogeneity*: friend, neighbour, children, sibling, other relatives; similarities between members (age, socioeconomic status, etc).
- *Frequency of contact between members*
- *Strength of ties*: degree of intimacy, reciprocity, expectation of durability and availability, emotional intensity.
- *Social participation*: involvement in social, political, educational, church and other activities.
- *Social anchorage*: years of residence in, and familiarity with, neighbourhood, involvement in community.

### ***Recognising social capital as a multi-dimensional concept***

Identifying the key components of social capital, as presented in Table 1, demonstrates that social capital is a multidimensional concept. Newton (1997: 575) suggests that to fail to conceptualise social capital's dimensions in separate terms is ultimately likely to 'muddle empirical questions'. Unless the separate dimensions are identified, we are unable to ask questions about how these dimensions operate empirically. Inability to pose empirical questions about the nature of the interaction between the separate dimensions of social capital severely limits our understanding of the concept as a whole.

Despite this, numerous social capital studies rely upon unidimensional measures of the concept, often with scant empirical or conceptual regard to the relationship between that dimension and other key elements, nor to the 'representativeness' of a given dimension of social capital of the concept as a whole. Most notable among these are studies which use a single item measure of trust, most often drawn from the World Values Survey, as indicative of social capital as a whole (see for example Knack and Keefer 1997). While trust lies at the core of social capital, it is also important to know how that trust inheres within networks, and its relationship to the norm of reciprocity.

## **Section 3 – A review of social capital measurement**

This section of the paper is structured around the key components of social capital presented in Table 1, above, describes their characteristics in more detail, and provides examples of the way these have been measured in social capital research to date<sup>10</sup>.

### ***Structure of social relations: networks***

#### *Network types*

Before specific characteristics of social networks can be explored, or their quality investigated, the network type being studied in any given social capital research must be identified.

Putnam (1998) distinguishes between informal and formal networks, or what he terms formality of civic engagement (Putnam 1998: vi). Informal ties, according to Putnam, include those held between family, kin, friends and neighbours, whereas formal ties include ties to voluntary associations and the like.

Among informal networks, distinction is first made between families within and beyond the household, as it is anticipated that family units within one household cooperate and function in different ways to extended networks of kin beyond the household (Finch 1989; Finch and Mason 1993)<sup>11</sup>. Informal 'communities of interest' beyond family and kin include friendships and other intimate relationships as well as bonds among neighbours. Formal networks of social relations concern those aspects of life most often described as civic (Baum et al 2000) or institutional. These include associations with formally constituted groups, as well as non-group based activities.

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10 The review of measures presented in Section 3 draws primarily upon measures used in social capital research. Where relevant, however, measures from other types of research are used to demonstrate a measurement approach.

11 For the purposes of the Institute's *Families, Social Capital and Citizenship* project this basic distinction does not exclude relationships between extended families within one household unit, nor the relations that occur between, for example, children and non-resident parents.

**Table 2. Types of informal and formal networks<sup>12</sup>.**

Informal networks	Formal networks of social relations
<ul style="list-style-type: none"> <li>• Family household</li> <li>• Family beyond the household</li> <li>• Friends/intimates</li> <li>• Neighbours</li> </ul>	<ul style="list-style-type: none"> <li>• Non-group based civic relations               <ul style="list-style-type: none"> <li>- good deeds</li> <li>- individual community or political action</li> </ul> </li> <li>• Associations/group based relations               <ul style="list-style-type: none"> <li>- antenatal</li> <li>- child care</li> <li>- education</li> <li>- sport/leisure</li> <li>- music/arts</li> <li>- church</li> <li>- charity</li> <li>- voluntary</li> <li>- self help</li> </ul> </li> <li>• Work based               <ul style="list-style-type: none"> <li>- colleagues</li> <li>- associations</li> </ul> </li> <li>• Institutional               <ul style="list-style-type: none"> <li>- state</li> </ul> </li> </ul>

Source: *Families, Social Capital and Citizenship* project, Australian Institute of Family Studies, 2000.

*(i) Family within the household*

The family household, as a place in which social relations characterised by trust and reciprocity operate, has received relatively little attention in social capital research<sup>13</sup>. Those studies which do focus on social capital within a family household typically investigate the impact of social capital on a given family outcome – often child development or wellbeing. The work of Coleman (1988), Furstenberg and Hughes (1995) and Amato (1998) are the most notable studies of this type.

Coleman (1988) was instrumental in determining that social capital may exist within the family unit as in other social networks. In his analysis of the role of social capital in the creation of human capital, Coleman focuses upon parent-child relations and uses measures of the physical presence of adults in a household and attention given by adults to children as empirical indicators of such relations. Ultimately, the ‘strength’ of family relations is measured by

<sup>12</sup>The classification of networks into these networks or ‘communities of interest’ is designed simply to order the vast range of types of associations people engage in, rather than to provide a meaningful way of understanding social capital relationships necessarily. Meaningful distinctions between different communities may be made (or found) in particular studies. For example, in their study of social capital and health, Baum et al (1998, 2000) found a differences in health outcomes related to social relations they classified as social and civic.

In contrast to the communities of interest approach, some studies also define social capital as the property of individuals, rather than as the property of networks (Hogan and Owen 2000), although such definition is at odds with the way social capital is usually understood, as a resource between individuals, which inheres within and between social networks.

<sup>13</sup>Family and household relations have, however, been researched in sociology and anthropology. See for example Elizabeth Bott’s 1957 study of conjugal roles and social networks (reprinted 1971) and Finch (1989) and Finch and Mason’s (1993) on family change and negotiation of family responsibilities. For more recent and alternate approaches to the sociological study of family relationships see, for example, the work of Smart and Neale (1999).

Coleman using a ratio of parents to children. Coleman's approach is useful as it deliberately measures the place and make-up of the family network. However, using the ratio of parents to children in a household as a measure of social capital is questionable in this work, as no account is made of relationship quality, such as through measures of norms of trust or reciprocity. As well, Coleman takes no account of non-resident parents, and quantitatively treats the presence of siblings as deleterious to the quality of any parent-child relation, rather than as having social capital potential, by extending networks of relations in a household.

Despite its limitations, Coleman's conceptualisation of family social capital as relations between parents and children has been adopted in other studies. Runyan et al (1998: 12), for example, use a measure of social capital which includes: two parents or parent-figures in the home; social support of the maternal caregiver; and no more than two children in the family. Marjoribanks and Kwok (1998) also focus upon exchanges within the parent-child relationship in their 'family social capital' scale:

- *My father/mother tells me that it is important for me to do well at school*
- *My father/mother checks my school diary and schoolwork*
- *My father/mother supports me by listening to my needs*
- *My father/mother supports me by attending activities at school*

Source: Marjoribanks and Kwok, 1998, p. 101.

Amato (1998) broadens Coleman's (1988) definition of family social capital to include parent-parent relationships as well as parent-child relationships, and uses a 'marital discord' variable to measure parent-parent relations. Parent-child relationships are measured using retrospective data about: receiving help with homework; receiving help with personal problems; having talks; showing affection; and feeling close (Amato 1998: 263).

Despite the breadth Amato adds to the study of networks of family relations, and his attention to the quality rather than quantity of relationships in comparison to Coleman (1988), the analysis remains limited. Apart from not recognising all family relationships (for example child-child or others), Amato's analysis of parent-parent relations tell us about relationship conflict but arguably, like Coleman, little about family social capital. The fact of marital discord does not *necessarily* impact upon the ability of partners to cooperate or trust one another.

More recently, Furstenberg (1995) has raised questions about the social capital role of non-resident parents, thus potentially expanding the family network beyond the limitation of household walls, to include other significant family members. Furstenberg (1996) suggests that in order to understand the real contribution of parents to family social capital, it is the *culture* that parents construct, into which their children are inculcated, which requires research attention. This culture includes values, habits, practices, rituals and norms (Furstenberg and Hughes 1995).

Overall, the measurement of family based households remains limited and is often narrowly defined in social capital research. The ways in which networks of social relations within families ought best be understood empirically, likewise, remains under explored. Adopting an inclusive rather than limited approach to the measurement of social relations within households, for example to include sibling relationships and non-resident parents where relevant, appears necessary to understanding the quality of such relations. A measure of family household networks must also be used in conjunction with measures of the quality and culture of social relations if it is to inform us about family based social capital at all.

*(ii) Family beyond the household*

Networks of family members or kin who reside beyond the household have received less attention in studies of social capital than families within the household (although intergenerational social support is itself the focus of considerable study, see for example Finch 1989; Finch and Mason 1993; Millward 1999; Short 1996).

Hofferth et al (1995) have published one of the very few investigations which focuses specifically upon social capital between different kinship households, indicated in transfers of time and money. Kinship networks are identified and measured indirectly by asking about a family's 'stock of' and 'investment in' social capital in the following way:

- *Time stock:* Suppose there were a serious emergency in your household. Is there a friend or relative living nearby whom you could call on to spend a lot of time helping out? If yes, would that be a relative?
- *Money stock:* Suppose in an emergency you needed several hundred dollars more than you had available or could borrow from an institution. Would you ask either a friend or a relative for it? If yes, is the person you would ask a relative?
- *Time investments:* People sometimes have emergencies and need help from others – either time or money. Let's talk about time. In the last five years have you (or has anyone living with you) spent a lot of time helping either a relative or friend in an emergency? If yes, was the person you helped a relative of yours/anybody who lives there?
- *Money investments:* In the last five years have you helped a friend or relative in an emergency by giving or loaning them several hundred dollars or more? If yes, was the person you helped a relative?

Source: Hofferth et al 1995, p. 14.

While these items demonstrate how family relations beyond the household may be explored, more detailed information about the 'relatives' involved in the exchange may be needed in some cases. The above questions inform us as to whether a person has family beyond the household they exchange favours with, yet leaves the quantum and identity of family members unknown. As well, depending on the aims of any given research, it may be useful to use a more open or inclusive list of exchanges (where these are used as indicators of social capital). This is particularly so in the case of family and kinship exchange, in which many and varied types of exchange take place.

Measuring the characteristics of networks of family beyond the household, such as network size, proximity and density (all discussed below), provides the most precise means of identifying the family beyond the household networks. Again, any measure of network type must be used in conjunction with information about network characteristics and norms.

*(iv) Friends and neighbours*

Putnam's (1995) study of American life drew a distinction between the different types of social networks likely to support social capital. Putnam identified neighbourhood networks – something he described simply as 'good neighbourliness' – as promoting social capital. In contrast, the leisure activity of bowling alone, or 'solo', rather than in an organised club activity, is presented by Putnam as evidence of 'social disengagement'.

Since Putnam's (1995) analysis, a number of studies have measured networks of friends, neighbours and acquaintances somewhat more precisely. Baum et al (2000), who ask about a wide range of networks a person or household is engaged in, use the following items, for example, to measure networks of friends

and neighbours. Networks are identified via questions about 'informal', 'public space' and 'group' activities:

- *Social Participation - Informal*

If the respondent had done any of the following activities monthly or more often in the past twelve months:

- visited friends or had friends visit;
- visited neighbours or had neighbours visit.

- *Social Participation – Activities in Public Spaces*

If the respondent had done any of the following activities monthly or more often in the past twelve months:

- Been to a cafe or restaurant;
- been to a social club;
- been to the cinema or theatre;
- been to a party or dance.

- *Social Participation - Group Activities*

If the respondent had done any of the following activities monthly or more often in the past twelve months:

- Played sport;
- been to the gym or exercise class; been to a class;
- been involved in a hobby group;
- singing/acting/musician in a group;
- been involved in a self-help or support group.

Source: Baum et al 2000, p. 255.

These items provide more precise information than that used by Putnam, including – importantly – information about the number of types of networks respondents had been involved with in the last year, and the variation of activities they have engaged in. However, what these particular items do not tell us is whether some of these 'networks' involve social relations at all. In particular, items included in this set of questions which ask about 'activities in public spaces' such as going to a café, cinema or theatre, or 'group activities' such as going to an exercise class or involvement in a hobby tell us more about the ways in which people spend their leisure time than providing specific information about the social networks they are part of.

As well, these items identify networks by relying upon measures of participation and exchange as indicators of social capital. Whether norms of trust and reciprocity operate within these networks must also be determined.

More precise measurement of social capital within friendship or neighbourhood networks may be made by first identifying the existence of such networks, and linking this information to information about network culture and characteristics. The following questions, for example, map out quite simply the existence of social relations in friendship and neighbourhood spheres:

- *How far away do your close friends live? How many live at each distance?*

- Same house/street
- In the same suburb/town as you
- Not in the same suburb/town, but within 30 minutes by car
- More than 30 minutes away, but under 2 hours drive
- Elsewhere in Australia
- Overseas

Source: AIFS (1991) Australian Living Standards Study 1991, Unpublished questionnaire.

- *Thinking about your neighbours in this area, about how many people would you say you know personally?*

Source: UK 'National Survey of Voluntary Activity 1991'

*(v) Non-group based civic relations*

As well as identifiable networks of friends, family and neighbours, a number of social capital studies have also included measures of non-group based social relations. Again using Baum et al (2000) as an example, that study asked the following:

• *Civic Participation - Individual Activities*

If the respondent had done any of the following activities at all in the past twelve months:

- Signed a petition;
- contacted a local MP;
- written to the council;
- contacted a local councillor;
- attended a protest meeting;
- written a letter to the editor of a newspaper;
- attended a council meeting.

Source: Baum et al 2000, p. 255.

While these items relate to political proactivity, measures of non-group based relations need not be political to inform our understanding of social capital, and may be tailored to the aims of specific studies. For example, the following items, drawn from a study of voluntary activity, tell us about non-group relations in the community (it ought also be noted that these questions may elicit information about relations with friends, neighbours and acquaintances):

• *We have talked so far about doing unpaid work or giving help through organisations or groups, but sometimes people help or do unpaid work just as an individual. Have you, in the past year, done any of these things, unpaid, in your neighbourhood? (Don't include things you've done for close relatives).*

- Visiting an elderly or sick person
- Doing shopping for someone
- Mowing a lawn, cleaning or other routine jobs for someone
- Decorating, or any kind of home or car repairs for someone
- Baby sitting or caring for children
- Looking after a pet for someone
- Giving advice about something or helping with letters or form filling
- Transporting or escorting someone (to hospital or an outing)
- Improving the environment, such as picking up litter or sweeping the pavement
- Is there anything else you've done for someone in your neighbourhood as a whole?

Source: UK 'National Survey of Voluntary Activity 1991'

While asking a question about a series of actions or deeds may identify the networks a person is engaged in as well as something about the nature of network participation, these items may nonetheless tell us little about social capital unless they are used in conjunction with measures of trust and reciprocity.

*(vi) Association/group based relations*

Information about association-based networks is typically collected via questions about a person's membership or engagement in a formally constituted group, of one kind or another. Putnam made famous this approach in his 1995 'Bowling Alone' study of American civic life. Using secondary analysis, Putnam used membership rates in a range of types of organisations as indicators of levels of social capital. These associations included: parent-teacher organisations; women's groups; scouts; Red Cross,

Lions clubs; service on a committee of a local organisation; work for a political party; and membership of a support group. Putnam also reported the growth of another form of network – associational membership, often involving little or no face-to-face contact, which he concluded was indicative of depleting stocks of social capital.

Putnam's analysis has been widely criticised, however, for failing to take account of changing patterns of civic engagement, and for perceiving new ways of engagement (for example the growth of associational memberships) through a nostalgic lens, and attaching negative judgements to them (see for example Pollitt 1999; Skocpol 1999)<sup>14</sup>.

Despite these criticisms, measuring the extent to which people are attached to formally constituted social groups of one kind or another is a method frequently employed for the measure of group based relations in social capital research. Krishna and Shrader (1999), for example, ask respondents whether they belong to the following:

- *Farmers/fisherman's group*
- *Traders'/business group*
- *Women's group*
- *Credit/finance group (formal)*
- *Political group*
- *Youth group*
- *Religious group*
- *Cultural association*
- *Neighbourhood/village association*
- *Parent group*
- *School committee*
- *Health committee*
- *Water/waste*
- *Sports group*
- *Civic group (ie Rotarians)*
- *NGO*
- *Professional association*
- *Trade union*
- *Other*

Source: Krishna and Shrader 1999, Annex D, p. 6.

Given that the questionnaire also asks about the motivations, reciprocity and degree of cooperation involved with such memberships (along with information about other types of networks), these questions are both useful and comprehensive for the analysis of social capital in networks based upon formal membership or association.

Similarly, Baum et al (2000) use the following items to measure association/group based relations. Although this list is less extensive than that presented by Krishna and Shrader, it also provides information about the frequency of engagement in such networks. Questions of this type should be linked to questions about the quality of network relations to inform us about social capital:

• *Civic Participation - Group Activities*

If the respondent had been involved in any of the following groups at all in the past twelve months:

- Resident or community action group;
- political party, trade union or political campaign;
- campaign or action to improve social or environmental conditions;
- local government.

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<sup>14</sup> Lyons (2000) uses another method for monitoring association/group participation over time which is based upon the growth and decline of the non profit sector in Australia, with a particular focus upon structural and funding changes, rather than participation rates *per se*.

- *Community Group Participation – mix of civic and social*

If the respondent had been involved in any of the following groups at all in the past twelve months:

- Volunteer organisation or group;
- school-related group;
- ethnic group;
- service club;
- attended church at least monthly.

Source: Baum et al 2000, p. 255.

*(vii) Work based associations*

Apart from studies concerned with the role of social capital within the workplace<sup>15</sup>, the work environment has also sometimes been singled out in social capital studies as a place in which friendship and other types of relations may form. These studies recognise the significance of the work environment in modern life, and attempt to measure friendship, group and non-group based associations which flow from the work environment but which are not specifically labour-job oriented.

In their study of five communities, Onyx and Bullen (2000), for example, suggest that the following items provide reliable information about the workplace as an arena in which networks rich in social capital may be found:

- *Do you feel part of the local geographic community where you work?*
- *Are your workmates also your friends?*
- *Do you feel part of a team at work?*

Source: Onyx and Bullen 2000, pp. 113.

Other studies which have focused upon employment and social capital, ask about the role of social capital in help with job seeking. Rose (1998), for example, in his study of 'getting things done' in modern Russia, asks the following multiple response question:

- *If you were looking for a new job, what would you do?*
  - Go to official employment bureau
  - Ask family
  - Ask friends
  - Look at help wanted advertisements
  - Approach different employers asking if they had work
  - Try to find work in another city
  - Offer a present or payment to manager to give me job
  - Don't know

Source: Rose 1998, p. 13.

Items such as these are useful indicators of the outcomes of social capital, but must be understood in relation to norms of trust and reciprocity to be meaningful in social capital terms.

*(vii) Institutions*

The extent of engagement individuals or families have with institutions, such as arms of government, the police and so on, are typically asked about in relation to trust (discussed below). However, the following items demonstrate how 'institutional networks' are mapped using items about citizen interaction with a range of institutions:

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<sup>15</sup> See for example Kramer and Tyler's (1996) study of trust in organisations.

- *[In the last 12 months] Have you, or anyone in your family living here, ever contacted a government official about some need or problem concerning the community as a whole? [multiple response]*  
 No, not in last 12 months  
 A federal member of parliament  
 Some other federal government official  
 A state member of parliament  
 Some other state government official  
 Your local councillor or some other local government official
- *[In the last 12 months] Have you, or anyone in your family living here, ever contacted a government official to seek help with a personal problem you or your family had? [multiple response]*  
 No, not in last 12 months  
 A federal member of parliament  
 Some other federal government official  
 A state member of parliament  
 Some other state government official  
 Your local councillor or some other local government official

Source: Papadakis 1988, Questionnaire p. 26.

Again, in order to properly inform us about social capital, these items which ask about participation with formal institutions must also take account of the cultural norms which govern such interaction, with particular emphasis upon trust and reciprocity.

#### *Network size and capacity*

Having identified network types, the literature suggests certain network characteristics have direct implications for the promotion and nature of social capital. Recent research has distinguished between 'bonding', 'bridging' and 'linking' social capital (for discussion see Putnam 1998; Narayan 1999; Woolcock 2000). Bonding social capital involves trust and reciprocity in closed networks, and helps the process of 'getting by' in life on a daily basis. 'Getting ahead' in contrast, is facilitated through bridging social capital involving multiplex networks which may make accessible the resources and opportunities which exist in one network to a member of another. Linking social capital involves social relations with those in authority, which might be used to garner resources or power.

Thus different types of social capital relate to the range of network characteristics described at Table 1. The first of these is the size and capacity of a given network. Networks can be anything from limited to extensive in size and capacity, and may involve relations within the household, at the neighbourhood or local community scale, to global and virtual relations which operate at vast distance. The size and capacity of social networks may affect overall stocks of social capital. Individuals and families with large numbers of social ties *may* have access to a large stock of social capital, depending on the nature of those ties. Those with few social ties may thus have little access or opportunity to invest in social capital.

In the network analysis tradition, Mitchell (1969) recognised that it is always necessary to limit the volume of data collected by selecting 'partial networks', which could be selected in one of two ways. First, a selected network around an individual, so as to generate 'ego-centred' networks of social relations of many kinds. Second, an abstraction of the 'global' features of networks in relation to a particular aspect of social life, for example kinship obligations, work relations, or political ties. Scott (1991: 31) observes that network analyses in the social sciences typically draw upon both of these methods, and are concerned with

partial, ego-centred networks focused around particular types of social relations. This is also true of social capital research, in which measures typically either map networks of significant others around an individual or family, or are concerned with particular types of exchanges.

The following items drawn from Onyx and Bullen's (1997, 2000) community studies are an example of the first approach. These items measure the extent of a person's network of 'significant others' via questions about social integration:

- *In the past week, how many phone conversations have you had with friends?*
- *How many people did you talk to yesterday?*
- *Over the weekend do you have lunch/dinner with other people outside your household?*

Source Onyx and Bullen 2000, p. 113.

Similarly, questions which ask about the physical proximity of family and friends also measure the degree to which a person is socially integrated, or availability of social support networks. The following are examples of these types of questions:

- *Where do most of your family members and friends live?*  
In the western suburbs of Adelaide  
In other parts of metropolitan Adelaide  
In other parts of South Australia  
In other parts of Australia  
Overseas
- *Which of the following fits your situation?*  
I know most of the people living in my neighbourhood  
I know many of the people living in my neighbourhood  
I know a few people in my neighbourhood, but most are strangers  
I do not know people in my neighbourhood

Source: Baum et al 1998.

The strength of this first approach is the information gathered about proximity to friends and family. However, it is important to recognise that this information, on its own, tells us little about which of these social relations, if any, are characterised by norms of trust and reciprocity.

The second approach to measuring the size of a social network focuses upon the substance of social relations. Rather than asking whether interaction takes place with a series of named individuals, the following items from a qualitative social capital study ask about stocks of social capital, which may be called upon to meet needs.

- *Now I'd like to look at some of the practicalities of how you go about your life.*
- *How do you get things done when you need to (find a baby sitter, find a school, get financial advice or other similar help?)*
- *How would you go about looking for work if you need a job?*
- *Where would you go if you were upset or 'in trouble' and needed personal help and support?*

Source: Stewart-Weeks and Richardson, 1998, p. 132.

While leaving a network list open-ended in this way is likely to avoid problems of leaving significant persons out of social network analysis, these questions are imprecise in other ways. For example, they tell little about the regularity or intensity of relationships, nor about the motivations for seeking help from particular sources, and whether such behaviour forms part of an ongoing, trusting relationship of reciprocal exchange.

Combining the first and second approaches to the study of network size, is another approach which attempts to map expressly a person's network and then add into this map relations which involve reciprocal exchange. This combined approach appears useful where a comprehensive understanding of all close relations in a network is required. For example, in the next set of questions relating specifically to children, respondents are asked a series of questions about exchanges, once they have identified people significant to them and provided information about the type of network those people belong to:

- *Matrix for network:*

For each name respondent provides, the following information is filled:

name (first name only, generated at the beginning)

sectors (neighbourhood, relatives, work, school, etc.)

you turn to or who turn to you for baby sitting or child care (from list)

do you turn to anyone on the list for help in times like these when you or your child are sick? Does anyone ask you for this kind of help?

are there people on your list who you turn to or who turn to you for advice about bringing up a young child — things like what foods to buy or how to handle discipline problems or where to get good children's clothing?

are there any people on your list who lend you things or who you lend thing to like a car or a small amount of money?

When things are really financially tight, who on the list can you turn to for help? Does anyone come to you?

when you are upset or worried about other things, do you have anyone on your list who you can talk to?

are there people on your list who you do things like sports with? dancing parties, moves, picnics and things like that?

Source: Cochran 1990, p. 315.

Again, while the information this matrix provides is precise, the same types of questions would ideally be linked to other measures of social capital rather than (or as well as) indicators of it. Where boundaries of networks are to be mapped, networks may best be defined in terms which are social capital relevant. A question asking, for example, about family networks beyond the household may ask about those relatives and kin with whom a person has an ongoing relationship, as well as the extent to which a culture of trust or reciprocity exists as a norm within any such relationship.

#### *Local and global networks*

In addition to network type, size and capacity, the ability to discriminate between social relations at household, neighbourhood, local community and other geographic scales may form an important part of a social capital study. As described above, a number of studies have investigated household based social capital, but most social capital research focuses upon local neighbourhoods and communities (see for example Kreuter et al 1997, 1999; Onyx and Bullen 1997, 2000), with little attention to relations beyond these communities.

Studies of social capital at the local community level typically: measure neighbourhood and local community participation; compare participation in one region with other regions; or investigate community connectedness as an indicator of localised social capital.

Onyx and Bullen (2000) provide a good example of the first of these approaches, and have identified the following items as useful ways of mapping local community and neighbourhood networks (which they call 'arenas') in which social capital may operate:

- *Participation in the Local Community:*
  - Do you help out a local group as a volunteer?
  - Have you attended a local community event in the past 6 months (eg, church fete, school concert, craft exhibition)?
  - Are you an active member of a local organisation or club (eg, sport, craft, social club)?
  - Are you on a management committee or organising committee for any local group or organisation?
  - In the past 3 years, have you ever joined a local community action to deal with an emergency?
  - In the past 3 years have you ever taken part in a local community project or working bee?
  - Have you ever been part of a project to organise a new service in your area (eg, youth club, scout hall, child care, recreation for disabled)?
- *Neighbourhood Connections:*
  - Can you get help from friends when you need it?
  - If you were caring for a child and needed to go out for a while, could you ask a neighbour for help?
  - Have you visited a neighbour in the past week?
  - When you go shopping in your local area are you likely to run into friends and acquaintances?
  - In the past 6 months, have you done a favour for a sick neighbour?

Source: Onyx and Bullen 2000, pp. 112-113.

The same study also asks about social relations beyond the local community. Items similar to the following could be developed to understand the geographic location of many network types:

- *Do you go outside your local community to visit your family?*
- *Do you feel part of the local geographic community where you work?*

Source: Onyx and Bullen 2000, p. 113.

Another way of finding out about the potential for social capital in a local community is to ask directly about how a particular community compares with another, in social capital terms. Krishna and Shrader (1999), for example, ask the following:

- *Compared with other villages/neighbourhoods, to what extent do people of this village/neighbourhood contribute time and money toward common development goals?*

Source: Krishna and Shrader 1999, Annex D, pp. 15-16.

While the information these questions provide may not give a precise, quantifiable description of the stock of social capital in either community, what the questions do provide is a perception of the overall culture of cooperation in a local area.

The third approach aims to determine the degree to which a person is connected to a local community – as an indicator of social capital of that local community. The CIS (1998), for example, in their social capital interviews, asked explicitly about community connectedness, and sought to investigate the importance of ‘a sense of connection to a physical place, location or to a ‘place’ that might be defined in terms of a network, an association etc in terms of promoting a sense of belonging’, using the following items:

- *Length of time lived in this location*
- *Reasons for choosing this location (when moved into area, why did you move here?)*
- *If someone asked you ‘where is home for you now?’ how would you answer? ... Why? Has that changed over time?*

- *What changes that sense of where 'home' is?*
- *In terms of that 'sense of home' or where you belong, how important are: parents, brothers, sisters, etc; your partner, children (if relevant); friends; your work mates (including professional links where relevant); the people you play sport with, hobby and related clubs/associations and community groups you are part of; the local shops and services; doctor, dentist, hairdresser, etc.*

Source: Stewart-Weeks and Richardson, 1998, pp. 130-134.

These questions inform our understanding of community connectedness. However, the relationship between belonging to a community or locality and social capital is one which requires further empirical exploration. This will determine whether a measure of local connectedness informs our understanding of social capital in any geographic area, at all.

The following items, used to investigate the mediating effect of social capital upon neighbourhood violence, include measures of networks, trust and reciprocity and are thus more likely to inform our understanding of social capital at a neighbourhood level:

- *People around here are willing to help their neighbours*
- *This is a close-knit neighbourhood*
- *People in this neighbourhood can be trusted*
- *People in this neighbourhood generally don't get along with each other*

Source: Sampson et al 1997, p. 920.

#### *Open and closed networks*

According to the social capital literature, the degree to which networks are open or closed has implications for the quality of the relationships they embody, and their productive output (Coleman 1988). Coleman (1988; 1990) defines the structure of relations which shape social capital. First, he distinguishes between open and closed networks of social relations and describes the consequence of the degree to which a network is open or closed. A closed network is one in which social relations exist between and among all parties. As Coleman explains:

Closure of social structure is important not only for the existence of effective norms but also for another form of social capital: the trustworthiness of social structures that allows the proliferation of obligations and expectations ... closure creates trustworthiness in a social structure. (Coleman 1988: 107-108)

Yet, despite the theorised effect of network closure upon norms of trust and reciprocity within a network, network closure remains an under investigated characteristic of networks in social capital research.

Clearly, in discussing family networks within a household, an assumption is able to be made that all members of a network know all other members, and that a family network of this type is *closed* and therefore potentially effective in providing a culture of shared norms and sanctions. However, it is less possible to assume that a closed network exists if we consider a larger family network, possibly one which is spread over vast distance.

Making assumptions about the degree to which non-family based networks are open or closed is more problematic. Even in the case of a local community group or an association small in membership, it cannot be assumed that all network members will know all other members. Indeed, it is reasonable to assume that the larger a network is in number, and the less geographically local it is, the more open it is likely to be in structure.

Coleman (1988) himself provides one of the few empirical investigations of network closure. In his analysis of the effect of both family and community social capital upon children's educational outcomes, Coleman investigates what he calls 'intergenerational closure', as well as multiplex relations (discussed below). Coleman investigated the educational wellbeing of students in religion-based high schools, surrounded by communities based upon religious organisation. In this context, Coleman concludes that what ever the relations of one parent to the next, the adults are members of the same religious body and parents of children in the same school.

However, little empirical work has been done which investigates the relative effect of network closure upon social capital in different types of network, over and above the effects of network density, discussed next.

#### *Dense and sparse networks*

The degree to which networks are 'dense' – the extent to which network memberships overlap – affects the ability of persons in one context to call on assistance to solve a problem in another. Coleman (1988) draws on the distinction made by Gluckman (1967) between simplex (or 'sparse') and multiplex ('dense') relations. Where relations are multiplex, persons are linked in more than one context. Work mates, for example, may be members of the same social club. Coleman (1988: 109) describes that the 'central property of a multiplex relation is that it allows the resources of one relationship to be appropriated for use in others'. The power of multiplex relations was demonstrated by Granovetter (1973) in his classic analysis of job seeking and the strength of weak ties. Despite this, network density remains relatively under-explored in social capital studies.

Stewart-Weeks and Richardson's 1998 qualitative study of social capital provides an example of how the density of networks might be measured. That study investigated numerous aspects of the structure of networks in which respondents were engaged, including network density. After detailing groups and associations they participated in, respondents were asked to describe the characteristics of the networks in which this participation took place, through the following series of questions:

- *Can you think of any of your current involvement in a group or association that came from your involvement in another group (e.g. you met someone there who suggested you become involved in another activity and you went along to give it a try)?*
- *Are there people you know and have contact with that you meet in more than one situation (e.g. they are at the P&C meeting and you meet them at indoor netball, work together on a political campaign and go out to a meal together or see them at the gym, etc.)?*
- *Can you think of any relationships or links you have made with people that have gone beyond the initial reason you got to know them (e.g. someone you have met at school or pre-school with whom you and your family have become good friends and now perhaps go away on holidays together occasionally; or someone you met at work with whom you started playing touch football and has now become a good mate)?*
- *Is it possible to think of the links and associations you have with other people and judge whether or not the ones that are most important to you are those where you have a range of different connections with them (e.g. school-church-sport, or work-sport-family friend, etc.)?*

Source: Stewart-Weeks and Richardson 1998, pp. 130-131.

Using a quantitative survey, Black and Hughes (2000) explore the extent to which networks are dense in a local community by asking 'whether people met their peers in the local area in which they lived', and distinguishing between networks according to whether:

- *Never meet people with same occupation, skills or knowledge in the local area*
- *Meet weekly or more often with people with the same occupation, skills or knowledge in the local area*
- *Never meet people with same special skills, abilities or interests in the local area*
- *Meet people weekly or more with same special skills, abilities or interests in the local area*

Source: Black and Hughes 2000, pp. 2-3.

Similarly, although in less detail, Krishna and Shrader (1999) ask directly about the density of networks respondents belong to, using the following item:

- *Overall, are the same people members of different groups or is there little overlap in membership?*

Source: Krishna and Shrader 1999, Annex D, p. 8.

Without mapping an entire community, or set of interconnected communities, it is no doubt impossible to measure precisely the degree to which networks are dense or sparse. What each of these approaches does inform about is the network connections between groups which a person may know of. The questions asked in the CIS qualitative study in particular, provide detailed information about the interconnectedness of networks for any given respondent – that is, the degree to which that respondent is potentially able to draw on any given network, and the perceived importance of those multiplex relations for that respondent.

#### *Homogenous and heterogenous networks*

Heterogeneity of group or network membership is also said to influence the levels of trust within networks, the extent to which trust of familiars translates into generalised trust of strangers, and the extent to which norms within networks are shared<sup>16</sup>. However, the effect of heterogeneity upon social capital remains open empirically, given recent empirical findings which are contradictory. Recent research has included proponents for the notion that heterogeneity increases social capital and other outcomes (Grootaert 1998) as well as those who have found that homogenous networks are most conducive to social capital (Portney and Berry 1997; Sampson et al 1997). Further, Stolle (1998) suggests that the effect of network heterogeneity will vary according to the homogeneity of the community context being investigated.

The following are examples of the ways network heterogeneity has been investigated empirically, and of questions which measure perceived heterogeneity and trust within communities.

Krishna and Shrader (1999) ask directly about the homogeneity of networks respondents belong to, using the following items:

- *Are they mostly of the same extended family?*
- *Are they mostly of the same religion?*
- *Are they mostly of the same gender?*
- *Are members mostly of the same political viewpoint or belong to the same political party?*
- *Do members mostly have the same occupation?*
- *Are members mostly from the same age group?*
- *Do members mostly have the same level of education?*

Source: Krishna and Shrader 1999, Annex D, p. 8.

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<sup>16</sup> The extent to which networks are homogenous or heterogenous are also hypothesised to affect the bonding, bridging and linking capabilities of social capital. See Putnam 1998; Narayan 1999 and Woolcock 2000 for discussion.

In addition to questions such as these which provide specific information about the make-up of networks a person belongs to, an indication of the effect of homo- or heterogeneity within a network would also be useful, in order to understand how membership diversity in a network affects the quality of social relations within it.

Of note, the same questionnaire uses a different method to ask about the impact of differences upon the likelihood of people forming cooperative networks:

- *There are often differences that exist between people living in the same village/neighbourhood. To what extent do differences such as the following tend to divide people in your village/neighbourhood:*

Differences...

in education	in religious beliefs
in wealth/material possessions	in ethnic background
in landholdings	other differences
between men and women	in political party affiliations
between younger and older generations	between old inhabitants and new settlers

Source: Krishna and Shrader 1999, Annex D, pp. 10-11.

While this question is hypothetical and not focused upon a particular network within a community, it does provide us with a sense of the perceived homogeneity and trust within the social relations of that location.

In the Australian context, Onyx and Bullen (2000) have used a different approach to understanding network homogeneity by asking about the inclusivity of the local neighbourhood. They ask:

- *If a stranger, someone different, moves into your street, would they be accepted by the neighbours?*

Source: Onyx and Bullen 2000, p. 114.

While this method, again, does not provide precise information about the homogeneity or heterogeneity of a particular network, it does attempt to directly determine the extent of 'trust of the unfamiliar' likely to exist within neighbourhood connections, said to come from network heterogeneity. Questions using similar logic could also be asked about other types of networks, again using hypothetical situations to understand, for example, whether personal differences are embraced within family, voluntary or friendship networks.

#### *Vertical and horizontal network relations*

Putnam et al (1993) and more recently Latham (1998; 2000) suggest that the power structure of a society – or *network* – will affect the nature of trust and reciprocity which inhere within that network.

Latham (2000) suggests that vertical (hierarchical) relations such as those between citizens and people in authority (for example the police), are the types of social relations relevant for understanding trust in authority. On the other hand, horizontal (equal, democratic) relations such as those between citizens, are relevant for understanding trust in civil society. He describes these as vertical and horizontal types of social capital.

Recent empirical work (Knack and Keefer 1997) which challenges the significance of vertical and horizontal relations for social capital, reinforces the need to understand empirically the impact of network hierarchies upon social capital.

While the questions of whether social networks are characterised by vertical or horizontal relations – specifically how democratic a network is – and whether

this matters for social capital remain a major theme in the social capital literature, this aspect of network relations also remains under-investigated. Those studies which have investigated this characteristic of networks typically ask about decision-making processes within networks or about the nature of rule enforcement as indicators of vertical and horizontal relations<sup>17</sup>.

Putnam (1993) for example, in his extensive longitudinal study of regional democracy in modern Italy, included in his analysis responses to the following items, asked of regional councillors:

- *How do the regional council and the regional government actually work?*
- *Who has influence and over what?*
- *What about relations with the central authorities?*
- *What is the job of the regional councillor?*
- *How do parties operate here?*

Source: Putnam 1993, Appendix A, p. 187.

Krishna and Shrader (1999) have designed the following questions to provide insight into the nature of the power relations within a given network. In relation to decision-making processes, their questionnaire asks:

- *When there is a decision to be made in the group, how does this usually come about?*  
The leader decides and informs the other group members  
The leader asks group members what they think and then decides.  
The group members hold a discussion and decide together.  
Other; Don't know; Not applicable.
- *Overall, how effective is the group's leadership?*  
Very effective  
Somewhat effective  
Not effective at all  
Other; Don't know; Not applicable.

Source: Krishna and Shrader 1999, Annex D, p. 8.

While these examples focus upon formal organisations, similar types of questions may be developed for all network types, including families, and may be tailored to specific research questions. Again, asking directly about the link between such relations and the quality of social relations would add substantially to our understanding of the effect of network structure upon norms of trust and reciprocity governing social relations.

### *Summary*

The characteristics of social networks are important to understand empirically as they are said to influence the extent and nature of social capital. However, studies of social capital rarely investigate social network characteristics explicitly. Rather, data about networks are typically gleaned from information about *outcomes* of social capital, such as participation in networks or exchanges between network members.

Despite this, the above review of network measurement indicates that measures of network characteristics are relatively well developed, and that social capital research has much to gain from classical social network analysis. Measures of network type, size, location, structure and relations – which may be modified according to the type of network in question in any empirical study of social capital – are readily available, though are seldom used comprehensively.

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<sup>17</sup> While little explored in social capital research, notions of organisational relations have been investigated using different theoretical frameworks. See for example Etzioni's 1960s work on organisational coherence.

It is important to note that however networks and their characteristics are measured, the existence of a social network cannot act as a measure of social capital per se, but must be linked to investigation of the norms governing social relations within a given network, and ideally to the characteristics of the network in question. Hence where the characteristics of networks are investigated in social capital research, it is important that this is done so in conjunction with the measure of norms of trust and reciprocity, discussed next.

### ***Quality of social relations: norms***

As defined above, social capital comprises both structural and relational components. Coleman (1988: S102) is helpful in explaining the link between the 'structural' and 'relational' aspects of social capital. He describes the norms governing social relations within networks thus:

If A does something for B and trusts B to reciprocate in the future, this establishes an expectation on the part of A and an obligation on the part of B. This obligation can be conceived as a credit slip held by A for performance by B.

Coleman's explanation also shows that norms of trust and reciprocity are themselves closely related conceptually and thus empirically. Trust, according to Fukuyama (1995: 26) is 'the expectation that arises within a community of regular, honest and cooperative behaviour, based on commonly shared norms, on the part of other members of that community'. Misztal (1996: 177) expands upon the relationship between norms of reciprocity and the generation and maintenance of trust, thus:

Norms of generalised reciprocity and networks of civic engagement encourage social trust and co-operation because they reduce incentives to defect, reduce uncertainty and provide models for future co-operation.

As social capital comprises norms of trust and reciprocity across a range of networks, it is important to recognise in empirical research that norms of trust and reciprocity, or at least the ways in which these norms and associated behaviours are manifest (and measurable), are likely to vary across different network types.

Despite receiving considerable attention in the social capital literature, norms governing social relations have received little rigorous empirical exploration in social capital research to date. A browse through existing studies reveals many 'gaps' when we consider the model of social capital presented above at Table 1 which includes a focus upon the nature of social relations as well as their structure.

Where norms of trust and reciprocity have been investigated in social capital research, this has often been done by measuring the behavioural *outcomes* of these norms, rather than the norms themselves (or individuals' perceptions of these norms). The ways norms of trust and reciprocity, respectively, have been investigated in social capital research to date are described below.

### ***Norms of trust***

The norm of trust is a key component of social capital. Social capital theory stresses the importance of trust for the well functioning of civil society, and for the facilitation of a range of outcomes including civic engagement and democracy (Putnam 1993, 1995; Uslaner 1999). Broadly speaking, the literature identifies three main types of trust (though these are frequently referred to under different names). The first is trust of familiars, sometimes called particularised trust (Uslaner 1999a), personalised trust (Hughes et al 2000), or

social trust of familiars (Cox and Caldwell 2000). This type of trust exists within established relationships and social networks. The second type of trust is mostly referred to as generalised trust (Putnam 1998; Dasgupta 1988; Uslaner 1999b), though is also referred to as a form of social trust (Cox and Caldwell 2000). This type of trust is a trust extended to strangers, often on the basis of expectations of behaviour or a sense of shared norms. Third is civic or institutional trust (Uslaner 1999b; Cox and Caldwell 2000), which refers to basic trust in the formal institutions of governance including fairness of rules, official procedures, dispute resolution and resource allocation (Cox 1997). Institutional trust differs from civic trust in that it relates to trust in expert systems (where, for example, a system is transparent, subject to regulation, and can be relied upon) (Giddens 1990; Black and Hughes 2000), whereas civic trust relates to familiarity (for example as social relationships occur as people relate to each other as citizens, clients, customers or users of a system)<sup>18</sup>.

The conceptual distinction between different types of trust means that different types of questions are necessary to investigate different types of trust in empirical research. However, differences in the way the respective types of trust have been investigated to date appear ad hoc rather than systematic or conceptually based. Trust of familiars such as family beyond the household, friendship groups and neighbours, for example, has mostly been measured through hypothetical questions about behaviours ('who would you trust to do X for you?'), though trust of familiars, particularly within families, remains under-explored. Greater attention has been paid to the study of generalised trust of strangers, and to civic or institutional trust – both of which are typically measured through attitudinal items.

Thus the ways in which norms of trust have been investigated include a mixture of measures of norms and attitudes, as well as measures of behaviour which might be the outcome of that norm.

*(i) Particularised trust among familiars*

Trust of familiars arguably applies to any of the social networks a person participates in. Where a norm of trust among familiars has been investigated, questions are sometimes based upon a hypothetical scenario which describes a situation in which a person may choose to place trust in others. The following items used by Onyx and Bullen to explore social trust in neighbourhood networks is an example of this type of question:

- *If you were caring for a child and needed to go out for a while, would you ask a neighbour for help?*

Source: Onyx and Bullen 2000, p. 113.

Paldam and Svendsen (1999) suggest that from an economist's point of view, the most direct measure of trust will involve a loan question. Rather than asking about actual exchanges which have occurred, they also suggest using hypothetical scenarios such as the following:

- *Consider the circle of the  $m = 100$  people (outside close family) you know best. How many in this circle would you trust (or would trust you) with a personal loan amounting to  $n = 5\%$  of your income?*

Source: Paldam and Svendsen 1999, p.17.

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<sup>18</sup>For more detailed discussion of trust, see Fukuyama 1995, Misztal 1996, Putnam 1993; Uslaner 1999a, 1999b. As well, in relation to the key conceptual questions raised in the social capital literature about trust, see: Putnam (1993, 1995, 1998) for discussion of how one type of trust leads to another; see Misztal (1996) on the relationship between trust and reciprocity; Coleman (1988, 1990) on trust and networks; and Hughes, Bellamy and Black (2000) for discussion and analysis of the creation of trust.

Hogan and Owen (2000) also investigate trust of familiars by including the following two attitudinal items in a longer question which asks mostly about civic trust (presented below):

- *How often can you trust each of the following to act in your best interests? (Always, Mostly, Sometimes, Rarely, Never, or Not Applicable)*  
Your relatives  
Your friends

Source: Hogan and Owen 2000, p. 90.

Cox (1997) also suggests that cooperative behaviours are indicators of trust of familiars. She suggests that among family members, for example, the following types of behaviours may be used to gauge levels of social trust:

- *Family conflict management*
- *Tolerance and flexibility in dealing with problems*
- *Coercive means to achieve conformity*
- *Style of rule making and enforcement, and sanctioning of breaches*
- *Perceptions of fairness*

Source: Cox 1997, p. 4.

#### *(ii) Generalised trust of strangers*

The measure of *generalised* social trust, as distinct from social trust of familiars, gained prominence through the work of Putnam (1995), who drew upon World Values Survey (WVS) data to conclude that the level of trust in American society had declined between 1960 and 1993. This analysis was based on the following single item:

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

Source: World Values Survey 1991

Despite the obvious limitations of using a single, unidimensional indicator for analysis of a concept as complex as social capital, the WVS item used by Putnam is commonly included in studies of social capital, often as the only indicator of the overall concept. Knack and Keefer (1997), for example, use the same item in an analysis of 29 market economies to conclude, in contrast with Putnam, that trust is not related to membership in formal groups (nor, more the focus of their work, that it is related to improved economic performance).

It is interesting to note one of the limitations of the WVS item identified by Knack and Keefer (1997) in their study. As they describe, it is difficult to know which 'people' respondents to this item have in mind. As a result, responses are likely to include a mix of familiars and others, thereby conflating familiar and generalised social trust.

Based on the WVS item 'The Australian Community Survey 1997-1998' (Hughes et al 1998, 2000) includes the following four items, which are somewhat more precise:

- *Generally speaking, most people in my local area can be trusted.*
- *Generally speaking, most Australians can be trusted.*
- *Generally speaking, you can't be too careful in dealing with most people in my local area.*
- *Generally speaking, you can't be too careful in dealing with most Australians.*

Source: Hughes et al, 2000 p. 231.

However, while these Australian items add context and discriminate spatially between different relationships, they remain limited in their ability to inform our understanding of familiar and generalised social trust, as we don't know which people respondents have in mind (as described by Knack and Keefer 1997, above). Also, as stated by Cox and Caldwell (2000: 60), questions of the type used in the WVS and their derivatives are 'useful broad indicators, but it is only when they are linked up with a range of different measures that they make sense as social capital markers'. To understand social trust in social capital terms, these 'different measures' must explore the other dimensions of social capital.

Stewart-Weeks and Richardson (1998) demonstrate how single item measures such as the WVS item, may be made more relevant and meaningful for our understanding of how social trust develops, and how it may relate to social capital. The CIS qualitative interviews asked:

- *Would you say that you trust most people? How do you decide who you trust and don't trust? Would you say you trust most people? Why? (Explore the difference between trust on personal contact vs. trust of public figures.)*

Source: Stewart-Weeks and Richardson 1998, p. 132.

In order to contextualise social, generalised trust a number of studies ask about trust in specific communities. The following items developed by Krishna and Shrader (1999) are examples of how trust in a particular location may be investigated, using references to specific qualities, such as honesty and caution of others, as well as by asking about comparisons of trust between one locality or network and another:

- *Please tell me whether in general you agree or disagree with the following statements:*  
Most people in this village/neighbourhood are basically honest and can be trusted  
Members in this village/neighbourhood are always more trustworthy than others  
In this village/neighbourhood one has to be alert of someone who is likely to take advantage of you

Source: Krishna and Shrader 1999, Annex D, pp. 20-21.

Even more situation specific are the following items used in the same questionnaire, which use hypothetical scenarios to determine the degree to which a person perceives people in the same locality to be trustworthy in dealing with lost possessions:

- *RURAL: If you lose a pig or a goat, someone in the village would help you look for it or would return it to you.*
- *URBAN: If you drop your purse or wallet in the neighbourhood, someone will see it and return it to you.*

Source: Krishna and Shrader 1999, Annex D, pp. 20-21

In Australia, Onyx and Bullen have used a similar, contextualised approach. The following items about feelings of trust and safety (as opposed to honesty) represent one of the social capital 'capacity building blocks' identified by these authors in their study of NSW communities:

- *Feelings of Trust and Safety*  
Do you feel safe walking down your street after dark?  
Do you agree that most people can be trusted?  
If someone's car breaks down outside your house, do you invite them into your home to use the phone?  
Does your area have a reputation for being a safe place?  
Does your local community feel like home?

Source: Onyx and Bullen 2000, p. 114.

The same study included the following 'tolerance of diversity' items (said to promote generalised trust) as a means of investigating generalised trust, again in the local community:

- *Tolerance of Diversity*

Do you think that multiculturalism makes life in your area better?

Do you enjoy living among people of different life styles?

Source: Onyx and Bullen 2000, p. 114.

However, in order to inform our understanding of social capital, indicators such as these must ideally be understood in the context of more direct measures of trust, in addition to other dimensions of social capital.

(iii) *Civic/institutional trust*

In addition to generalised trust, civic – or institutional – trust is that aspect of trust which has received most investigation in the empirical social capital literature to date. Civic trust has also been investigated using a variety of question types, including the use of vignettes, attitudinal items and hypothetical questions.

One of the most commonly used question types involves simply listing a series of institutions and asking directly the extent to which a person trusts them. The WVS, for example, includes this type of question in addition to the item about social trust discussed above. The Australian version of the WVS (1984), for example, asked how much *confidence* respondents had in each of the following:

- *The church*
- *The armed forces*
- *The education system*
- *The legal system*
- *The press*
- *Trade unions*
- *The police*
- *Federal parliament*
- *State government*
- *Local government*
- *The health system*
- *The airline system*
- *The banking system*
- *The telephone system*
- *The postal system*
- *Australian companies*
- *Overseas companies*
- *Small business*
- *The public service*

Source: World Values Survey, Australian version 1984.

Hogan and Owen (2000) also use this approach in their study of social capital, active citizenship and political equity, which includes responses to the following items about 'your best interests':

- *How often can you trust each of the following to act in your best interests? (Always, Mostly, Sometimes, Rarely, Never, or Not Applicable)*  
Your minister/priest                      Politicians generally  
The police                                      Public servants  
Local councils                                The state government  
Political parties                                The federal government

Source: Hogan and Owen 2000, p. 90.

Questions based on hypothetical scenarios have also been used to inform our understanding of civic trust. Onyx and Bullen (1997, 2000), for example, use the following items in their analysis of trust within specific communities, to investigate the level of trust residents have in one another and in local bodies of governance and administration:

- *If you have a dispute with your neighbours (e.g. over fences or dogs) are you willing to seek mediation?*
- *In a local development issue, would you trust the council to come to a fair decision? (1997)*

Source: Onyx and Bullen 2000, p. 113.

Again, however, while these items do provide an indication of the level of confidence or trust people may feel in social institutions, without investigation of how civic trust relates to social trust, or to norms within other networks, the items tell us little about social capital.

#### *(iv) Summary*

Overall, measures of some types of trust are more well developed than others. The study of social trust of familiars, critical for understanding family social capital and community engagement, remains very limited. Where trust of familiars has been measured, it has typically been done so via attitudinal items, or through asking about behaviours thought to require trust (such as help seeking behaviour) – which can be understood as *outcomes* of a norm of trust. These studies provide a guide as to how measures of social trust may be further developed.

Social trust of a generalised kind, on the other hand, has been better researched to date, and does not necessarily need to relate to a specific network or community. Although, as the above items demonstrate, it is possible to minimise problems of ambiguity in measures of generalised trust by defining the parameters in which trust is being investigated (for example in the neighbourhood, town, most Australians).

Ultimately, understanding how one type of trust relates to another is a critical question in the literature, yet one which remains unmeasurable where each type of trust is not investigated, as has often been the case.

#### *Norms of reciprocity*

Reciprocity is the process of exchange within a social relationship whereby 'goods and services' (meaning exchange of any kind) given by one party are repaid to that party by the party who received the original 'goods and services'. Reciprocal relations are governed by norms, such that parties to the exchange understand the social contract they have entered into.

We can expect that norms of reciprocity will vary according to network type. Finch and Mason (1993), for example, show that reciprocity among family and kin is an ongoing process which may take many years to realise, and that the norm of reciprocity within family and kinship groupings enables uneven levels of exchange, delayed exchange and indirect exchanges (favours for others) to occur. Studies of the intergenerational transfer of 'goods' (broadly defined) which consistently show imbalance in the flow of goods in favour of assistance from one generation down to the next, support the notion that family based reciprocity is flexible and is based on a sturdy foundation of familial obligation (see for example Short 1996; Millward 1999; de Vaus and Qu 1999).

We might reasonably expect that among networks involving less regular and long-term exchanges as those which may occur within families, reciprocity will be less flexible and less robust. Hence, that norms of reciprocity among family and non-family networks will differ empirically.

Where social capital research to date has asked about reciprocity, it has tended to do so in one of three ways. The first of these approaches investigates cultures of reciprocity within a given network or locality. The second and third approaches investigate reciprocal behaviour and benefits of network participation, respectively.

These second and third approaches can be understood as investigating behavioural outcomes of the norm of reciprocity, rather than the norm itself.

The first approach, then, informs upon the norm of reciprocity and associated cultural norms and values. Krishna and Shrader's (1999) household questionnaire asks, for example, about 'reciprocity and cooperation', where the norm is one to be found in a local community rather than a value held by an individual or family within that community:

- *People here look out mainly for the welfare of their own families and they are not much concerned with village/neighbourhood welfare. Do you agree or disagree with this statement?*  
[strongly agree; agree; disagree; strongly disagree; don't know; no answer]
- *If a community project does not directly benefit your neighbour but has benefits for others in the village/neighbourhood, then do you think your neighbour would contribute time for this project?*
- *If a community project does not directly benefit your neighbour but has benefits for others in the village/neighbourhood, then do you think your neighbour would contribute money for this project?*

These questions were followed by items including the following:

- *Please tell me whether in general you agree or disagree with the following statements:*  
People are always interested only in their own welfare  
If I have a problem there is always someone to help [me]  
I do not pay attention to the opinions of others in the village/neighbourhood  
Most people in this village/neighbourhood are willing to help if you need it  
This village/neighbourhood has prospered in the last 5 years  
I feel accepted as a member of this village/neighbourhood

Source: Krishna and Shrader 1999, Annex D, pp. 20-21.

While the above examples relate mostly to the study of local community, this type of question may be useful for investigating the cultural norm of any family or society network, in addition to understanding the values held by individual respondents about the norm of reciprocity. Questions about norms such as 'willingness to help each other out', for example, could readily be tailored to suit a range of network types, including family, friendship, neighbourhood, and civic group based networks.

A variation of this first approach, is to ask about the values held by an individual rather than a culture within a network. This variation is thus a less direct measure of a norm of reciprocity, though may still prove to be a useful indicator of an overall norm. The following item, for example, provides a sense of the general values held by an individual in relation to the norm of reciprocity:

- *Some say that by helping others, you help yourself in the long run. Do you agree?*

Source: Onyx and Bullen 2000, p. 114.

The following are examples of the second measurement approach, which focuses upon the behavioural outcome of a norm of reciprocity, and ask specifically about reciprocal exchange among neighbours (as opposed to those studies which ask only about one-way flows, which may or may not be reciprocal):

- *How often do you borrow things and exchange favours with your neighbours? (often to never)*
- *Within the past year, how often have you and your neighbour helped each other with small tasks, such as repair work or grocery shopping?*

Source: Kreuter et al 1999, Population Telephone Survey, p. 64.

- *In the past six months, have you done a favour for a sick neighbour?*

Source: Onyx and Bullen 2000, p. 112.

More specifically matched in terms of exchanges of similar goods and services are the following items drawn from a study of intergenerational relations within families:

- *Do you provide your own adult children with emotional support or advice?*
- *Do you help your adult children financially if they need it?*
- *Do you provide your adult children with any practical support?*
- *Do your adult children provide you with any emotional support or advice?*
- *Do your adult children help you financially if you need it?*
- *Do your adult children provide you with any practical support?*

Source: Australian Family Life Course Survey, AIFS 1996.

A similar style of question was used by Baum et al (1998) in their Australian study of social capital, to understand reciprocity within neighbourhood and friendship networks. The following items attempt to match exchanges of 'goods and services', place them within a time period, and take account of the need for reciprocity:

- *Have you assisted neighbours or friends with the following activities in the past year?*  
Listened to their problems  
Helped them with odd jobs  
Lent them household equipment  
Looked after the house while they were away  
Assisted them with shopping  
Cared for a member of their family (children or adults)  
Lent them money  
Other (please specify)  
OR, No assistance was needed
- *Have your neighbours or friends assisted you with the following activities in the past year?*  
[same list as previous question]

Source: Baum et al 1998.

While the above examples focus upon family and local neighbourhood networks, questions of this kind, which ask about reciprocal behaviour, provide a means of understanding reciprocity in any network type.

As well as asking about reciprocal exchanges which take place within networks, Mangen and Westbrook (1988) suggest that as reciprocity may not always be immediate, the study of reciprocity should include questions about the *expectation* of future exchange as well as current or actual exchange. This type of approach will no doubt be most useful where social relations are likely to be long lasting, such as those among family and kin.

The CIS qualitative study of social capital provides a good example of the third type of measurement technique described above, which asks about the benefits of participation or exchange in a given network. Following a series of questions about the structure of networks respondents participate in, the following questions about motivations for participation, and the benefits of that network participation were asked:

- *Thinking of the different associations and groups and activities you are involved in, what sorts of reasons can you think of that got you involved in the first place? ...*

- *Some possible reasons which have been mentioned by other people include:*  
Always wanted to give it a try/learn how to do it  
Because I enjoy it  
Felt I wanted to give something back to the group/community  
Feeling lonely and decided to do something about it  
Just a series of coincidences and unexpected connections  
Forced to do it (ie being dragged along to a meeting or feeling shamed into getting involved in an activity, but then got interested, met some good people and now ...)
- *When you think of the different types of connections you have with people (family, friends, neighbours, groups and associations):*  
What do you think you get out of those connections? What are the benefits for you? Reasons some people have given us include (the following, on show card). Do any of these things fit you?  
A feeling of solidarity/community/security  
Getting things done/action/community politics  
Need for specific service of help  
Friendship  
Someone to rely on  
Gives me something to do with my life  
Want to make a contribution to my community (a sense of obligation)  
Mixing with people interested in similar hobbies, etc.

Source: Stewart-Weeks and Richardson 1998, pp. 134-136.

These types of items may also be modified to suit a range of network types. Asking about the motivations for and benefits of participation informs our understanding of whether participation in social networks is due to a norm of reciprocity, such as a sense of obligation to reciprocate or a motivation to act for the common good, which may thus be used as indicators of a norm of reciprocity.

*(i) Non-reciprocal behaviour*

In addition to the three types of questioning described above, attempts have also been made to measure the lack of a norm of reciprocity by focusing upon behaviour which is non-reciprocal. The following questions, for example, ask respondents to describe which behaviours – all of which breach norms of reciprocity – can be justified, can never be justified, or something in between:

- *claiming government benefits which you are not entitled to*
- *avoiding a fare on public transport*
- *cheating on taxes if you have the chance*
- *keeping money that you have found*
- *failing to report damage you've done accidentally to a parked vehicle*

Source: Knack and Keefer 1997, pp. 1256.

The authors themselves identify one of the possible limitations of this line of questioning: the potential reluctance of respondents to admit to 'deceiving' the government, taxpayers or others. Thus, in presenting their own analysis, results based on these items were presented in conjunction with results based on trust items (where respondents could base responses on another's behaviour rather than their own 'trustworthiness').

The investigation of sanctions which are invoked as a result of non-reciprocated behaviour may be another way of examining the norm of reciprocity (or lack thereof). The following items from a survey of voluntary activity are examples of how non-reciprocity (not benefiting) in relation to participation in a network may be investigated.

- *There can be disadvantages and dissatisfactions in doing [voluntary work]. Which of the following statements apply to you. Do you ever feel that:*

You don't get asked to do the kinds of things you'd like to do

That it takes up too much of your time

That your help is not really wanted

Your efforts aren't always appreciated

That too much work is expected of you

That you find yourself out of pocket.

Source: UK 'National Survey of Voluntary Activity 1991'

While each of these methods may inform our understanding of the norms of reciprocity via non-reciprocal behaviours, items designed to more *directly* measure the absence of a norm of reciprocity may be more useful.

#### *(ii) Summary*

In sum, like the measurement of trust, norms of reciprocity can be investigated either through asking directly about perceived norms, or by investigating behavioural outcomes which result from and demonstrate the norm of reciprocity 'at work'. Measures of the norm of reciprocity are able to be used in conjunction with measures of trust across a range of network types, to most effectively understand the role of social capital in relation to a range of outcomes.

In addition, while measurement of the norm of reciprocity is somewhat limited in social capital research to date, it is important for future research to recognise normative differences between different social settings and network types. Norms of reciprocity within families will differ from norms of reciprocity among other social relations. Where behavioural indicators of the norm of reciprocity are used, these should also reflect the different types of exchanges which are likely to occur within different network types.

## **Section 4 – Summary: Principles for measuring social capital in family and community life**

Having set forth a conceptual framework for the measurement of social capital and reviewed existing measures in light of this framework, this section of the paper presents a series of guidelines for the empirical investigation of social capital. These principles have been developed throughout this paper with emphasis upon survey methodology, though may be applied to the study of social capital more broadly.

The first of these is simply that empirical operationalisation of social capital must reflect theoretical understandings of the concept. Starting with a conceptually clear definition, and linking this directly to a measurement framework ensures conceptual validity and facilitates unambiguous research. As demonstrated in Section 2 of this paper, drawing a link between social capital theory and empirical research in this way enables the following:

- *Empirical recognition that social capital is a multidimensional concept comprising networks of social relations characterised by norms of trust and reciprocity;*
- *An understanding that each of these dimensions must be measured in a comprehensive and valid investigation of social capital;*
- *A conceptual and empirical distinction between social capital and its outcomes, facilitating unambiguous research design which may properly inform upon the relationship between social capital and other factors;*
- *Avoidance, therefore of the common practice of mistaking a range of factors/outcomes which may be related to social capital for measures of social capital itself;*

- *Research which is, overall, therefore able to measure with precision the key elements of social capital, understand how these relate to one another, as well to how these relate to key predictors and outcomes.*

In addition, the review of social capital measures presented in Section 3 of this paper highlighted the need for clarity about the use of measures of social capital and measures of its outcomes, in social capital research, and that:

- *To achieve conceptual and empirical clarity, each key dimension of social capital should be measured, including measurement of norms within networks;*
- *It must be recognised that reliance upon measures of the outcomes of social capital as indicators of social capital itself poses the risk of tautological fallacy, whereby social capital is said to exist whenever the indicator is present.*

With regard to each of the dimensions of social capital specifically:

- *As well as the simple identification of social networks, network characteristics said to influence social capital, are important to investigate empirically as these affect the nature and capability of social capital itself (measures of network characteristics are well developed in social network analysis, and are readily able to be modified for the study of social capital);*
- *Investigation of norms of trust and reciprocity must pay regard to the different norms likely to exist within different types of networks (for example family norms compared with norms among friends);*
- *Where different types of trust and reciprocity exist (as set out at Table 1), these should also be distinguished and investigated empirically, enabling full investigation of the way the dimensions of social capital interrelate.*

Finally, and importantly, while each of the separate dimensions of social capital must be measured directly in any empirical investigation of social capital, ideally each of these dimensions will also be linked to the others. This means, for example, that the measure of a given type of social network ought be linked to the measure of norms of trust and reciprocity within that network, thereby ensuring that the relationship between the dimensions of social capital can be understood.

In this way, empirical investigation of social capital can be conducted with validity and reliability, while contributing to the ongoing development of a conceptual framework which links social capital theory to empirical work.

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