



# OPHI WORKING PAPER NO. 67

## Social Isolation: A conceptual and Measurement Proposal

Diego Zavaleta\*, Kim Samuel\*\*, and China Mills\*\*\*

January 2014

### Abstract

Social isolation is a deprivation of social connectedness. It is a crucial aspect that continues to be named by people as a core impediment for achieving well-being and as a relevant factor for understanding poverty. The notion of social isolation has been discussed within a diversity of theories that have provided rich insights into particular aspects of social isolation. However, there is no agreement on the core components of this social malady or on how to measure it. Although the challenge of conceptualising and measuring social connectedness is daunting, this paper argues that existing research in several fields provides solid ground for a common concept and for the construction of basic internationally comparable indicators that measure specific aspects of social isolation. In particular, this paper aims to contribute to the debate on social connectedness and its measurement in three ways: (1) presenting a working definition that, while doing justice to the rich insights advanced by different theories, stresses relational features in the life experience of people; (2) emphasising the relevance of

\* Oxford Poverty & Human Development Initiative; Queen Elizabeth House, University of Oxford, Mansfield Road, Oxford. [diego.zavaleta@qeh.ox.ac.uk](mailto:diego.zavaleta@qeh.ox.ac.uk).

\*\* Oxford Poverty & Human Development Initiative; Queen Elizabeth House, University of Oxford, Mansfield Road, Oxford [kim.samuel@qeh.ox.ac.uk](mailto:kim.samuel@qeh.ox.ac.uk).

\*\*\* Oxford Poverty & Human Development Initiative; Queen Elizabeth House, University of Oxford, Mansfield Road, Oxford [china.mills@qeh.ox.ac.uk](mailto:china.mills@qeh.ox.ac.uk).

This study has been prepared within the OPHI theme on multidimensional measurement.

OPHI gratefully acknowledges support from the UK Economic and Social Research Council (ESRC)/(DFID) Joint Scheme, Robertson Foundation, Praus, UNICEF N'Djamena Chad Country Office, German Federal Ministry for Economic Cooperation and Development (GIZ), Georg-August-Universität Göttingen, International Food Policy Research Institute (IFPRI), John Fell Oxford University Press (OUP) Research Fund, United Nations Development Programme (UNDP) Human Development Report Office, national UNDP and UNICEF offices, and private benefactors. International Development Research Council (IDRC) of Canada, Canadian International Development Agency (CIDA), UK Department of International Development (DFID), and AusAID are also recognised for their past support.

isolation for poverty analysis; and (3) proposing some indicators to measure social connectedness that could be feasibly incorporated into a multi-topic household survey.

**Keywords:** social connectedness, social isolation, relational poverty, loneliness, social networks, multidimensional poverty, shame and humiliation, personal relations.

**JEL classification:** C8, I3, Z130.

## Acknowledgements

We are enormously grateful to Sabina Alkire for comments on earlier drafts and for continued support. We would particularly like to thank all those who made our fieldwork possible and the people and communities who taught us so much. For amazing support during fieldwork we would like to thank; the Synergos Institute, and Synergos South Africa; Nelson Mandela's Children's Fund (NMCF) (South Africa); the Leadership and Innovation Network For Collaboration In The Children's Sector (LINC); Fundação para o Desenvolvimento da Comunidade (Foundation for Community Development) (Mozambique); Recontro (Mozambique); Assembly of First Nations (Canada); Gathering Voices Society (Canada); and Special Olympics International. We would also particularly like to thank the National Association of Child and Youth Care Worker's (NACCW) Isibindi project, and its teams in Soweto and Grabouw; the Gogo's at the Othandweni Center; and Julio Mutemba from REPSSI, Mozambique.

**Citation:** Zavaleta, D., Samuel, K. & Mills, C. (2014). Social isolation: A conceptual and measurement proposal. *OPHI Working Papers* 67.

*The Oxford Poverty and Human Development Initiative (OPHI) is a research centre within the Oxford Department of International Development, Queen Elizabeth House, at the University of Oxford. Led by Sabina Alkire, OPHI aspires to build and advance a more systematic methodological and economic framework for reducing multidimensional poverty, grounded in people's experiences and values.*

This publication is copyright, however it may be reproduced without fee for teaching or non-profit purposes, but not for resale. Formal permission is required for all such uses, and will normally be granted immediately. For copying in any other circumstances, or for re-use in other publications, or for translation or adaptation, prior written permission must be obtained from OPHI and may be subject to a fee.

Oxford Poverty & Human Development Initiative (OPHI)  
Oxford Department of International Development  
Queen Elizabeth House (QEH), University of Oxford  
3 Mansfield Road, Oxford OX1 3TB, UK  
Tel. +44 (0)1865 271915 Fax +44 (0)1865 281801  
ophi@qeh.ox.ac.uk <http://www.ophi.org.uk>

The views expressed in this publication are those of the author(s). Publication does not imply endorsement by OPHI or the University of Oxford, nor by the sponsors, of any of the views expressed.

‘... currently available results suggest that those interested in maximizing society’s welfare should shift their attention from an emphasis on increasing consumption opportunities to an emphasis on increasing social contacts’  
– Kahneman and Krueger (2006, p. 22).

‘The most important thing is being able to live with others because if one is poor, relating with others can reduce one’s poverty’  
– Female, Mozambique.<sup>1</sup>

This paper proposes a conceptual framework and a series of indicators to measure social connectedness. The indicators assess a person’s ability to achieve social connectedness and are intended to generate internationally comparable data. Deprivation in social connectedness – or social isolation – represents, we argue, a social aspect of absolute poverty. The paper is structured as follows: Part 1 introduces the motivation for this work. Part 2 proposes a definition of social isolation and reviews related literature and survey questions on this subject. Part 3 presents potential indicators and survey questions. Part 4 concludes.

## 1. Introduction

In a recent debate on ‘Measuring National Well-being’, people in the United Kingdom were prompted to consider the question of what mattered most for understanding well-being. One of the aspects that participants considered to be most important was ‘personal relationships’ (ONS 2011). Similarly, studies such as The Voices of the Poor, conducted in 60 developing countries, have found that people living in absolute poverty consider ‘social isolation’ to be a relevant aspect in their understanding of poverty (Narayan, Chambers, Shah and Petesch 2000b). Former French President, Nicholas Sarkozy, convened a commission to identify the limits of current indicators of economic performance and social progress, and to suggest how to improve them for all countries, with a primary focus on Europe. The commission, led by Nobel Prize winners Joseph Stiglitz and Amartya Sen, and French economist Jean Paul Fitoussi, concluded that ‘social connections and relationships’ should be among the dimensions taken into account for measurement of quality of life globally. Moreover, they argue that social connections should be considered *simultaneously* alongside other dimensions such as material living

---

<sup>1</sup> Personal interview (08/2013).

<sup>2</sup> These are only some examples of a number of initiatives exploring aspects of social connectedness. See, for example, the Benessere Equo e Sostenibile initiative in Italy (<http://www.misuredelbenessere.it>), the New Zealand *Social Report* (<http://socialreport.msd.govt.nz>), The Minnesota Project (Minnesota Department of Health 2010), the Working Group on Social Isolation of the Province of British Columbia in Canada (Keefe *et al.* 2006), and the work on social isolation by the New South Wales Department of Disability, Ageing and Home Care in Australia (Fine and Spencer 2009). In Italy, for example, people indicated, through participatory exercises, that good relationships with friends and relatives were as

standard (income, consumption and wealth); health; education; personal activities, including work; political voice and governance; environment (present and future conditions); and insecurity (of an economic as well as physical nature) (Stiglitz, Sen and Fitoussi 2009).<sup>2</sup> These local and global initiatives (spanning the developing and developed world) attest to the importance that human beings place on social relations in the evaluation of their wellbeing, alongside other dimensions of life. They reflect, as well, the acknowledged gap between what people value and the dimensions currently used for assessing the wellbeing of people.

Indeed, social relations are so fundamental that certain deprivations of social connectedness – or social isolation – have been argued by Sen and others to be core components of the idea of poverty.<sup>3</sup> Sen, for example, builds on Adam Smith’s general point that the inability to interact freely with others is an important deprivation in itself that ‘relates to the importance of taking part in the life of the community, and ultimately to the Aristotelian understanding that the individual lives an inescapably “social life”’ (2000, p. 4). Therefore, *relational* deprivation is an intrinsic part of capability poverty because people ‘have good reason to value not being excluded from social relations, and in this sense, social exclusion may be directly a part of capability poverty’ (*ibid.*). Second, relational deprivation is instrumentally a cause of poverty because not being able to interact freely can result in other deprivations, such as being excluded from employment opportunities, and thus it is a cause of diverse capability failure. In turn, Nussbaum lists *affiliation* – living with others, interaction, social bases of respect and non-humiliation – as one of ten central capabilities (2000, p. 78–80). More recently, Basu (2013) has argued that a person’s sense of belonging to a group or society is a decisive instrument for enhancing capability or supporting economic progress. For him, the real reasons that explain the big differences between how much individuals benefit from development run deeper than what standard economic models can currently explain: ‘Once people are treated as marginal over a period of time, forces develop that erode their capability and productivity, and reinforce their marginalisation. Such people learn not to participate in society and others learn to exclude them, and this becomes a part of “societal equilibrium”’ (2013, p. 324).

---

<sup>2</sup> These are only some examples of a number of initiatives exploring aspects of social connectedness. See, for example, the Benessere Equo e Sostenibile initiative in Italy (<http://www.misuredelbenessere.it>), the New Zealand *Social Report* (<http://socialreport.msd.govt.nz>), The Minnesota Project (Minnesota Department of Health 2010), the Working Group on Social Isolation of the Province of British Columbia in Canada (Keefe *et al.* 2006), and the work on social isolation by the New South Wales Department of Disability, Ageing and Home Care in Australia (Fine and Spencer 2009). In Italy, for example, people indicated, through participatory exercises, that good relationships with friends and relatives were as important as having an adequate income. Relationships were considered by respondents to be among the top contributors to life and well-being, ranking behind only good health, guaranteeing the economic and social future of children, and having decent satisfying work.

<sup>3</sup> See, for example, Sen (2000, pp. 4–5), Nussbaum (2000), Grootaert (1998), and Narayan *et al.* (2000b). See also Castleman (2013) for a discussion on ‘human recognition’.

Empirical studies also attest to links between poverty and different aspects of social isolation, including living in a poor neighbourhood and access to social resources (Tigges, Browne and Green 1998); links between low income, greater isolation, and a lower sense of belonging, which also affects the perceptions and experiences of stigmatization and isolation for those who live on a low income (Stewart et al. 2009); and the effect of social resources and different norms on economic outcomes (Grootaert 1998).

This paper will propose a working conceptual framework and a series of indicators to capture internationally comparable data on social connectedness. These indicators could be included in standard household surveys to increase insights about multidimensional poverty by showing the joint distribution of deprivations in poverty and social connectedness for the same person. Furthermore, specific hypotheses, such as the links between health outcomes and social isolation, or its relevance for the understanding of absolute poverty, can also be tested.

The challenge of conceptualising and measuring social connectedness is daunting. Not only does the phenomenon entail a multiplicity of aspects (such as different types of relations, their quality, where they take place, or the norms governing these relations), but new complexities continue to be unravelled by advances in neurosciences and multidisciplinary studies.<sup>4</sup> Additionally, the topic has been engaged by a number of disciplines, producing a myriad of distinct and sometimes conflicting definitions. Attempts at measuring this phenomenon have followed a similar path. Consequently, this paper joins a very unsettled debate on the measurement of social connections (see Stiglitz, Sen and Fitoussi 2009; Stone 2001; OECD 2011).

Yet this paper will argue that existing research in several fields provides solid ground for the construction of basic internationally comparable indicators that measure specific aspects of social isolation. The social capital, social exclusion and social cohesion literatures, for example, provide insightful observations about relational deprivations, as well as experiences in measuring these aspects. In turn, psychological theories of loneliness and the literature on quality of life prioritise people's own assessments about their situation regarding social connectedness. Furthermore, multidisciplinary and specific national experiences provide accounts of comprehensive studies that have used objective and subjective indicators to attempt to gain a richer understanding of this phenomenon.

---

<sup>4</sup> See, for example, the fascinating insights into human relations provided by network theory (Christakis and Fowler 2009) or by the multidisciplinary teams comprising psychologists, psychiatrists, sociologists, biostatisticians, cardiologists, endocrinologists, behavioural geneticists, neurologists, neuroscientists, theologian and philosophers encompassed in the MacArthur Mind-Body Network, the MacArthur Aging Society Network, and the Templeton-University of Chicago Research Network (Cacioppo *et al.* 2000; Cacioppo and Patrick 2008).

This paper aims to contribute to the debate on social connectedness and its measurement in three ways. First, by presenting a working definition that, while doing justice to the rich insights advanced by different theories, stresses relational features in the life experience of people. For this, it builds, in particular, on multidisciplinary work that explores external and internal aspects of social connectedness, such as the seminal work ‘Social Isolation in Modern Society’ by Hortulanus, Machielse and Meeuwesen (2005). Yet much of the work on social isolation frames social isolation as a product of modern Western society, hence there is a dearth of research that explicitly examines the relationship between poverty and social isolation. Therefore, secondly, this paper enters this complex terrain by emphasising the relevance of isolation for poverty analysis. Finally, the paper proposes some indicators to measure social connectedness that are feasible to incorporate into a multi-topic household survey. This will allow for the production of a fuller assessment of a person’s social connectedness by generating information on some of the multiple aspects that affect his or her social relations. However, unlike much of the current research on this topic, this paper will emphasise the use of indicators suitable for developing countries.<sup>5</sup>

For this purpose, this paper follows four guiding principles. First, and as with other exercises within OPHI’s Missing Dimensions of Poverty Data program, this paper builds exclusively on indicators that have been previously tested and found to give rise to data that can be analysed in rigorous academic published work. Thus, all the proposed indicators come from an array of different literatures and have been previously implemented, although not necessarily in developing countries. Second, the indicators have been chosen to obtain specific information about aspects of social connectedness, as well as to be used in conjunction with other variables. This will allow researchers to establish the relationship between different aspects of isolation, as well as between aspects of isolation and other dimensions relevant for poverty analysis, such as empowerment or income. Third, the proposed indicators seek to advance understanding of social isolation and how it manifests in each of the different levels involved in the social connectivity of a person. For this, the definition used in this paper follows the suggestions for the measurement of social connections set out by the OECD (2011). Finally, it seeks to incorporate direct measures of social connectedness, including people’s own internal evaluations of their social relationships. This follows the recommendation by the Commission on the Measurement of Economic Performance and Social Progress that meaningful indicators of social connections need to move away from proxy measures to rely on surveys of peoples’ actual behaviours and activities (Stiglitz, Sen and Fitoussi 2009).

---

<sup>5</sup> Currently, much of the literature is based on the European, Australian, New Zealand, or North American contexts.

## 2. Dimensions of relational impoverishment: social isolation

### 2.1 Definition

Social isolation is a deprivation of social connectedness<sup>6</sup> This paper argues that social isolation is **the inadequate quality and quantity of *social relations* with other people at the different levels where human interaction takes place (individual, group, community and the larger social environment)**. Alternative definitions of social isolation are provided in Table 1.

Table 1. Alternative definitions of social isolation

Social Isolation	
Wilson (1987, p. 60).	'the lack of contact or of sustained interaction with individuals or institutions that represent mainstream society'
Delisle (1988)	'social isolation denotes a lack of quantity and quality of social contacts'
Hawthorne, G. (2006).	Living 'without companionship, having low levels of social contact, little social support, feeling separate from others, being an outsider, isolated and suffering loneliness'
Hortulanus, R., Machielse, A. and Meeuwesen, L. (2006, pp. 37–41).	'Although there is no clear-cut definition of social isolation, a common characteristic is the lack of meaningful social networks.....' Hortulanus et al. provide a conceptual understanding of isolation that combines objective aspects of social relations, drawing from network approaches, and the subjectively experienced quality of social contacts in a personal network, drawing from research on loneliness. Using this framework, they propose a typology of social contacts, which takes into account both size and quality of networks. This typology is made up of a) the socially competent, b) the socially inhibited (who have few contacts but do not feel lonely), c) the lonely (who have numerous contacts but feel lonely), and d) the socially isolated (who have a small network, feel lonely, and have a desire for change in one or both of these aspects).
Fine and Spencer (2009)	'Social isolation can be defined as having two distinct characteristics – social and affective isolation. That is, social isolation involves a combination of low levels of social interaction with the experience of feelings of loneliness (Findlay and Cartwright 2002) where the social aspects are measured objectively (often quantitatively) while the emotional aspects are measured qualitatively' (Fine and Spencer 2009, p. 9).
Minnesota Department of Health (2010)	The lack of an ' <i>individual's</i> engagement in an interactive web of key <i>relationships</i> within communities that have particular physical and social <i>structures</i> that are affected by broad economic and political forces (emphasis in original)' (p. 13).*
Biordi, and Nicholson, (2013).	'the distancing of an individual, psychologically or physically, or both, from his or her network of desired or needed relationships with other persons.'

\* The actual definition provided by the Minnesota Department of Health refers to 'Social Connectedness'. Although how to label the deprivation in social connectedness is not explicitly discussed, the term 'isolation' is used to refer to this deprivation in some parts of the report (e.g. p. 23).

There are some aspects that are important to clarify about this definition. To start with, this definition underscores that both the quantity *and* quality of social relations are necessary for the assessment of the

<sup>6</sup> There are several types of deprivations of social connectedness. For example, OPHI's Missing Dimensions of Poverty Data programme investigates aspects of shame and humiliation associated with poverty, such as being stigmatised or being subject to discrimination (Zavaleta 2007). See also Castleman (2013) for a discussion on human recognition.

level of social isolation of a person. The **quantity of social relations** refers to the number or frequency of interactions with another individual or individuals – such as the social networks we belong to, the number of groups in which we participate, or the frequency with which we meet friends and family – and has important effects on our lives (e.g., by advancing common goals, helping to obtain a job, or increasing the sense of social status for some people).<sup>7</sup> There is also evidence that they impact development outcomes, such as growth, equity and poverty alleviation.<sup>8</sup>

In turn, the **quality of social relations** refers to two aspects. First, to a type of relationship that satisfies a person's expectations or standards and thus is subject to an internal evaluation. This implies the need for *meaningful* relations in order to point to a particular type of exchange that goes beyond basic forms of social interaction that involve solely addressing and soliciting a response from another social agent to interaction where contact is regular and is mediated by cultural norms and symbols. In our view, 'taking part in the life of the community' requires meaningful participation (e.g., a sense of belonging and voice) and not merely interaction in the social sphere. This evaluation is influenced by the personality and subjectivity of a person and thus by societal norms and culture. And second, it is related to the instrumental value of the relationship. That is, one type of friend or network might yield a different contribution to one's life than others.

Both quantitative and qualitative aspects of deprivations in connectedness contribute in a myriad of ways to the social isolation of a human being – the combination of factors is probably as rich as the diversity of human beings themselves. However, the **relationship between these quantitative and qualitative aspects** is not direct. For example, being alone (lack of or small number of relations) may trigger feelings of loneliness (a qualitative aspect), and feeling isolated may result in being alone. Yet one may feel extremely lonely while being surrounded by people, family or friends, and people with few social contacts may not feel isolated at all (indeed, many individuals enjoy their solitude and value it).

In turn, the evaluation of the **adequacy** of the quality and quantity of the *social relations* of a person take place in two spheres. In an external sphere, some types of assessment regarding the adequacy of the number of relations that an individual has, or the frequency of contact, can be made by an external observer (e.g., one could assess the number of connections, group participation and family relations in terms of frequency of contact), and some form of objective evaluation can take place (e.g., establishing that belonging to one health scheme is better than another). The evaluation can also take place in an

---

<sup>7</sup> See the section below on social capital for more on this. See, also, the discussion by Christakis and Fowler (2011) on how social networks shape our lives.

<sup>8</sup> For a discussion on how aspects of social capital affect economic outcomes, see Grootaert 1998. See also Putnam 2000.

internal sphere; that is, a person's assessment of the quality and quantity of relationships. This evaluation will be affected by a series of internal factors, such as the perception of what constitutes an ideal quantity or quality of relationships (frame of reference)<sup>9</sup> or by past experiences or particular psychological traits. It is also important to clarify that this evaluation refers to the *overall* set of social relations that a person has (whatever the set includes) and not to any particular relationship.<sup>10</sup> Thus, for example, a person who suffers from an abusive emotional relationship may be isolated both because she may feel that her social relations are inadequate (in this case, an emotional relation) or as a consequence of the abuse, as she may be prevented from maintaining contact with other people. Yet being in such a situation does not *ipso facto* imply that this person is isolated: an overall assessment of her situation may expose adequate relationships in other levels of human interaction that offer support.

The definition also emphasises the **different levels** where human interaction takes place. For simplicity, we have divided them into four types: individual, group, community, and larger social environment. Individual interaction can take different forms (e.g., a spouse, an extended family member, a co-worker, a friend). By group we understand different small, tight and cohesive social entities such as a church, a trade union or a club. A community can share similar attributes with a group but, for the purpose of this paper, we understand it as a less tight and larger group, such as a neighbourhood, a village or a small-size ethnic community within a larger setting. The social relations of a person with the larger social environment can take many forms, including relations with larger scale groups (such as groups bound by regional identities), institutions, and one's own society (through, for example, political connectedness – a topic deeply linked with agency and empowerment).

The social relationships of an individual with the larger environment raise important questions. What is the role of 'standards' of non-isolation to the evaluation of one's own situation? We know, for example, that feelings of aloneness can contribute to and exacerbate mental distress.<sup>11</sup> Yet the perception of what are the appropriate quantity and quality of relations is influenced by society and culture. For example, while living alone may give rise to loneliness, this tends to be more so, for example, in contexts where there is a cultural expectation that older adults will live with their families (e.g., in Italy or Greece), and less so in places where it is more culturally acceptable for older adults to live alone (de Jong Gierveld, van Tilburg and Dykstra 2006). Thus, prevailing normative standards of different social contexts (such

---

<sup>9</sup> Which, in turn (and as discussed above), is influenced by societal norms and culture.

<sup>10</sup> It is indeed conceivable that the total number of social relations of a person is one or a very small number (e.g., a couple or a family unit living in a remote area). However, most people deal with at least a small number of meaningful relations in their daily life.

<sup>11</sup> See, for example, Mind (2004).

as, expectations about nuclear families or norms concerning matrimony and romantic relationships) may be considered 'loneliness provoking factors', particularly for those who live alone (de Jong Gierveld, van Tilburg and Dykstra 2006, p. 492; also see Ernst and Cacioppo 1998).

There is a further experience worth noting here – the isolation of groups and communities due to group characteristics or geographical/physical location. Econometric analysis by Fafchamps and Shilpi (2008), for example, demonstrates that geographic isolation (often due to inaccessible roads), in Nepal, is associated with lower subjective welfare (using the perception of the adequacy of the household total income as a proxy for subjective welfare). Drawing upon participatory work on poverty in parts of rural Colombia, McGee (1998) explains that the physical isolation associated with living somewhere remote and ill-served by infrastructure may at times make 'people feel that their communities' physical isolation permits the authorities to neglect them with impunity; in turn, neglect on the part of the authorities compounds local peoples' sense of being abandoned and ostracized' (cited in Brock 1999, p. 34). McGee observes, 'even within villages, the worst off are physically isolated: many respondents observed that the poorest and most marginalized are those who are never seen or heard' and that 'isolation has the greatest impact on the poor, whose mobility is often already restricted' (Brock 1999, pp. 34 and 53). Yet the isolation of groups, and/or geographical isolation, may not be synonymous with lack of social interaction. It may conversely produce the experience of 'being alone together' (Suedfeld 1974, p.1) while being isolated from other groups and/or wider society.

Samuel has described isolation as 'being at the bottom of the well' – a situation in which others in society do not even know one's distressing and worsening predicament, much less move swiftly to redress it (Samuel 2014). This is a complex phenomenon that goes beyond being alone or having few social connections. Nelson Mandela, for example, spent many years of his life as a prisoner held in solitary confinement without freedom and human contact, deprived of all outward signs of dignity and life. However, when asked about his own experiences of isolation, Mandela replied, 'I have never been isolated.... not even on Robben Island; on Robben Island we were all brothers working together with a common purpose. I was never alone. But I have seen isolation. Isolation is the child with HIV/AIDS in a village in Africa who no one will love or care for or feed or shelter or touch. I have seen isolation and it is very bad.'<sup>12</sup> This links to Fromm's suggestion that relatedness to others is not identical to physical contact, as an individual may be alone physically for years (giving the example of a political prisoner kept in solitary confinement) and yet feel related to ideas and values that provide her with a sense of

---

<sup>12</sup> Personal conversation (May 1997).

belonging. Conversely, a person ‘may live among people and yet be overcome with an utter feeling of isolation’ (Fromm 1942/2001, p. 15).

Hortulanus et al. (2006, p. 40) recognise the co-existence of loneliness and social networks in their typology of social contacts, which is made up of four groups: the ‘socially competent’ (who have an adequate number of, and are satisfied with, their social contacts), the ‘socially inhibited’ (who have few contacts but a network that is adequate for their social needs), the ‘lonely’ (who have contacts but do not find them adequate), and the ‘socially isolated’ (who have a small network and feel lonely). In the interest of this paper, this typology is useful because it takes into account both quantity and quality of social networks, as well as enabling an evaluation of risk of social isolation. Yet their formulation of social isolation remains slightly confusing in that they suggest that the ‘socially isolated’ have few contacts, are not happy about this, and also feel lonely. But being unhappy about not having contacts may not necessarily be the same as feeling lonely. Therefore, this paper takes a broader understanding of social isolation, which may or sometimes may not include feelings of loneliness. In part, this is because this paper seeks to develop indicators to measure isolation internationally and thus needs to take into account research that draws attention to issues such as different cultural understandings of loneliness and specific loneliness-provoking factors (de Jong Gierveld, van Tilburg and Dykstra 2006) alongside issues of the social isolation of groups (Suedfeld 1974).

This paper proposes that the social isolation of an individual be assessed both by its external and internal characteristics.<sup>13</sup> Here, external characteristics refer to observable social conditions or what is labelled as objective social isolation: the small number (or absence) of *meaningful* relationships with other people (i.e., how *alone* that individual may be) (de Jong Gierveld, van Tilburg and Dykstra 2006, *our own emphasis*).<sup>14</sup> In turn, internal characteristics refer to phenomenon not quantifiable by observation, including trust,<sup>15</sup> satisfaction with relationships, and the subjective experience commonly known as

---

<sup>13</sup> We are using the terms ‘internal’ and ‘external’ in relation to social connections in a different way than used by some of the social capital literature, where ‘internal effects’ is sometimes used to refer to the ways in which social networks benefit people inside those networks, while ‘external effects’ is used to depict externalities.

<sup>14</sup> de Jong Gierveld, van Tilburg and Dykstra (2006) refer to this as the ‘objective’ characteristics of social isolation, in contrast to the subjective characteristics discussed further below. As will be discussed, we propose to add further concepts that are subject to the internal evaluation of the person and propose to label all these phenomena as internal social isolation rather than as ‘subjective’.

<sup>15</sup> This paper understands trust as ‘the expectation that arises within a community of regular, honest, and cooperative behaviour, based on commonly shared norms, on the part of the other members of that community’ (Fukuyama 1995, p. 26). As already discussed, trust is considered as an attitude because although it is closely bound to behaviour, it is ultimately based on a psychological evaluation of relations with others that, in turn, is affected by our own disposition to believe in other human beings. Yet trust is also based on cultural norms and on objective experiences, such as the number of times in which our own expectations have not been fulfilled.

loneliness, namely ‘the distress that results from discrepancies between ideal and perceived social relationships’ (Hawkley and Cacioppo 2009).

The inclusion of internal characteristics into an area usually understood by its external traits follows an increasing number of studies that use data reflecting people’s perceptions of their own life (Hawthorne 2006; Hortulanus, Machiels and Meeuwesen 2005; and WHO-QoL Group 1993). The conceptualisation of characteristics as either internal or external (or, to some extent, subjective/objective) relates to a differentiation between patterns of behaviour and personal attitudes. Thus, social networks are seen as behavioural, while trust is seen as an attitude. This dichotomy is to some extent false, with attitudes and behaviour closely bound together (for example, people may have few social networks if they perceive a general lack of trust). However, Abbott and Freeth (2008) justify a focus on attitudinal aspects because by maintaining a separation between behaviour and attitudes and measuring each phenomenon as discreet, it is possible to explore the relationships between attitudes and behaviours (for example, how different levels of trust relate to different types of social networks). This allows analysis of the potentially complex relationships between attitudes and behaviours and how they may relate differently to social isolation.

## 2.2 Relevant experiences

The notion of social isolation has been approached from different angles by a diversity of theories. This has resulted in a varied array of observations emanating from diverse disciplines that have contributed rich insights into particular aspects of social isolation. Unfortunately, it has also resulted in a multiplicity of definitions and a sometimes fuzzy use of terminology. Positive and negative terms, such as ‘isolation’, ‘social connections’, ‘connectedness’, ‘social connectivity’, ‘estrangement’, ‘alienation’, ‘social cohesion’, ‘marginalisation’, ‘community engagement’ and ‘social exclusion’, are used interchangeably and sometimes even understood as having self-evident meaning, which contributes to confusion in the field.<sup>16</sup> The following section presents some of the key concepts within this contested theoretical terrain, as well as particular national experiences from which this paper builds upon for the proposed indicators advanced in Section 3.

---

<sup>16</sup> The vagueness of some of these concepts is actually perceived as an advantage by some authors. Bernard, for example, argues that social cohesion is a ‘quasi-concept’ whose vagueness makes it ‘adaptable to various situations, flexible enough to follow the meanderings and necessities of political action from day to day’ (1999, p. 2). In turn, de Haan argues that ‘social exclusion is a theoretical concept, a lens through which people look at reality and not reality itself’ (2001, p. 28). Finally, Silver suggests that although the term ‘social exclusion’ is ‘so evocative, ambiguous, multidimensional and expansive that it can be defined in many different ways’, the ‘difficulty on defining exclusion and the fact that it is interpreted differently in different contexts at different times can be seen as a theoretical opportunity’ (1995, pp. 59–60).

### 2.2.1 Social capital, social cohesion and social exclusion

The literature on social capital points to the relevance of social connectivity with family, groups, and community, and to the importance of the rules that govern this connectivity. In line with the conceptualisation of other types of capital (for example, physical or human), theorists use the term ‘social capital’ to point to the significance that social connectivity has as an input to enhance a person’s ability to gain access to power or resources or to increase the level and efficiency of production (Coleman 1988; Grootaert 1998; OECD 2001, 2011; Putnam 2000; Woolcock 1998, 2001). The Commission on the Measurement of Economic Performance and Social Progress defines social capital as ‘social networks and the associated norms of reciprocity and trustworthiness’ (Stiglitz, Sen and Fitoussi 2009, p. 182).<sup>17</sup> Theoretical work not only emphasises the potential benefits that social capital can have for a person and their immediate group or network, but also the benefits that it may provide for outsiders through relevant externalities. However, social capital can also be detrimental for society (e.g., by improving the condition of one group at the heavy expense of the well-being of other groups), especially if used to foster activities or values that are negative for society (e.g., to promote violence by a closely knit gang or mafia). In order to account for these distinctions, theories of social capital frequently distinguish between ‘bonding’ and ‘bridging’ social capital, where the former refers to capital that nurtures ties between people of similar backgrounds (such as family, socio-economic status, community, religious, ethnic, or age group, and the latter to ties that bring people from different backgrounds together (Putnam 2000).

For Putnam, the ‘touchstone of social capital’ is the principle of generalized reciprocity (2000, p. 134). Here reciprocity is bound up with trust and, thus, ‘trustworthiness, not simply trust, is the key ingredient’ (Putnam 2000, p. 136). Moreover, ‘generalized reciprocity is bolstered by dense networks of social exchange’ (*ibid.*) and is seen as a key quality that fosters a sense of belonging (Stewart et al. 2009). Reciprocity is understood as a complex mutual exchange of giving and receiving, or what de Tocqueville called ‘self-interest rightly understood’ (Onyx and Bullen 2000). In the Stewart et al. (2009) study of poverty and social isolation in Canada, a third of participants across income groups cited reciprocity as important within their social relationships, and low-income participants who experienced reciprocity perceived themselves as slightly more fortunate than others from the same income group. Lack of reciprocity is also associated with negative feelings, such as loneliness (Buunk and Prins 1998).

---

<sup>17</sup> Defining social capital is a highly debated topic. Alternative definitions are provided in Table 2. For a comprehensive list of definitions, see Adler and Kwon (2002).

But do these theories get to the heart of the matter in addressing the social connectivity of a person? In many respects they certainly do and have done an invaluable job in advancing the relevance of social ties for economic and sociological analysis. Yet this rich literature does tend to concentrate on the instrumentality of social connections, especially when it comes to their measurement, therefore, overlooking their *intrinsic* value. The instrumentality of social connections is indisputably a crucial point: as widely argued, social connections can have a positive impact on key aspects of life, such as a person's health, well-being, job opportunities, financial security and physical safety (Berkman and Glass 2000; Cattell 2001; Halpern 2005; Kahneman and Krueger 2006; Putnam 2000). However, most people also attach very high intrinsic value to social contacts.<sup>18</sup> People value the sense of belonging to a community, having friends and emotional attachments, and being able to participate in society. As early as 1943, Maslow outlined a hierarchy of needs, where love and belonging form the centre of a pyramid that builds up to self-actualization. Alongside physical needs and security, interpersonal relations, such as friendship, love and a sense of belonging, are conceived of as fundamental, and when these basic needs are not met, many people experience loneliness, social anxiety, or depression (Maslow 1943).

Indeed, people place such high value on this aspect that they 'report that good relationships with family members, friends or romantic partners — far more than money or fame — are prerequisites for their own happiness' (Helliwell and Putnam 2004, p.1437). This is evident in a quote from *Voices of the Poor*, where a woman living in poverty in Bulgaria states that, 'I like money and nice things, but it's not money that makes me happy. It's people that make me happy' (cited in Narayan and Petesch 2002, p.258). Or, as Francis Fukuyama argues: 'while people work in organizations to satisfy their individual needs, the workplace also draws people out of their private lives and connects them to a wider social world. That connectedness is not just a means to the end of earning a paycheck but an important end of human life itself. For just as people are selfish, a side of the human personality craves being part of larger communities' (1995, p. 6).

More importantly, should not a person's own assessment of his or her social relations be a central component of any evaluation of this matter? Could a person not potentially find her social connections deeply unsatisfactory despite being a member of several networks and being able to profit from them? In fact, a negative internal evaluation by a person of the adequacy of his or her social relationships may trigger feelings of subjective social isolation (more on this below). This painful condition significantly impacts the well-being of a person (for example, intense manifestations of subjective social isolation are

---

<sup>18</sup> Some people, such as hermits or people who for religious or other reasons have devoted themselves to meditation in solitude, do value the opposite. However, these examples constitute a minority of the population.

often paired with depression, although these are two distinct dimensions of experience).<sup>19</sup> According to a survey by Mind (a UK based mental health charity) (2004), over two thirds of people who experience mental distress surveyed in the UK reported that isolation is often a cause and/or contributor to their mental health problems. Furthermore, if it becomes chronic, social isolation may have negative impacts on many of the same crucial aspects that social capital is thought to improve, such as health (Cacioppo and Patrick 2008; House, Landis and Umberson 1988; Perissinotto, Stijacic Cenzer, and Covinsky 2012).

In terms of measurement, a relevant experience in measuring social capital for the purpose of this paper (due to its focus on comparable indicators and aim at being applicable in developing countries) is the Integrated Questionnaire for the Measurement of Social Capital (SC-IQ) produced by The World Bank's Social Capital Thematic Group (Grootaert et al. 2004).<sup>20</sup> The questionnaire provides a set of survey questions arranged into six broad sections, namely, i) Groups and Networks; ii) Trust and Solidarity; iii) Collective Action and Cooperation; iv) Information and Communication; v) Social Cohesion and Inclusion; and vi) Empowerment and Political Action.<sup>21</sup> These sections aim to address different dimensions of social capital (both structural and cognitive – points i and ii, respectively), some of the main ways in which social capital operates (iii and iv), and some major outcomes (v and vi). These questions were designed to generate quantitative data on various dimensions of social capital as part of a larger household survey. An advantage of this survey is that all of its questions have been drawn from previous surveys and are argued to have demonstrated reliability, validity, and usefulness. However, as the authors point out, the questionnaire has been designed within a conceptual framework of social capital based at the household level and thus relevant issues at other levels have not been included.<sup>22</sup> Despite these rich attempts, measuring social capital remains a highly unsettled matter.<sup>23</sup>

---

<sup>19</sup> For a discussion on the links between loneliness and depression see Cacioppo and Patrick (2008, p. 83). See also Segrin (1998).

<sup>20</sup> Several countries have dedicated surveys on social capital developed for their own contexts, including the United Kingdom, Australia, Canada, Ireland, the Netherlands, and the United States. There are also important initiatives by the OECD and several national statistics offices advocating for the harmonisation of social capital indicators (see, for example, Healy 2002). The study by Grootaert *et al.* 2004 is, to the knowledge of these authors, the largest study attempting to develop internationally comparable indicators on social capital. Its emphasis on developing countries – the questionnaire builds on studies carried in Bolivia, Burkina Faso, Ghana, Guatemala, Indonesia, Tanzania, and Uganda – and the objective of making these indicators usable for a multi-topic household survey makes this experience particularly relevant for this study. Unfortunately, the questionnaire has been only piloted in Albania and Nigeria and thus there is no evaluation of its relevance. For a discussion on practical guidelines for measuring social capital in low-income countries using the SC-IQ see Jones and Woolcock (2007).

<sup>21</sup> The list of the suggested most essential questionnaire items is provided in Appendix 1.

<sup>22</sup> See also Healy (2002) for a discussion on measuring social capital at the international level, and Harper and Kelly (2003) for a discussion on measuring social capital in the United Kingdom.

<sup>23</sup> See, for example, Adam and Roncevic (2003); Durlauf and Fafchamps (2004); Foxton and Jones (2011); Grootaert (1998); Lochner, Kawachi and Kennedy (1999); Moore *et al.* (2011); OECD (2011); Putnam (2001); Stiglitz, Sen and Fitoussi (2009); and Stone (2001). The Commission on the Measurement of Economic Performance and Social Progress, for example,

A related literature to social capital is that of social cohesion: ‘the processes of building shared values and communities of interpretation, reducing disparities in wealth and income, and generally enabling people to have a sense that they are engaged in a common enterprise, facing shared challenges, and that they are members of the same community’ (Rosell *et al.* cited in Maxwell 1996, p. 13).<sup>24</sup> The relevance of this literature for the purpose of this paper relies on the emphasis set, among its multiple dimensions, on aspects of social connectedness such as the quality of the ‘social fabric’; relationships; inclusion; positive interactions; tolerance and respect for other people, exchanges, and networks between individuals and communities; people’s sense of belonging; and shared values between those from different backgrounds (see, for example, Council of Europe 2005, 2008; Friedkin 2004; Jenson 1998, 2010). Yet understanding the social connectivity of a person requires an individual assessment alongside an assessment of the social environment (although, of course, the social environment is crucial to understanding the connectivity of any human being). For example, one can be extremely satisfied with different types of relationships and his or her sense of belonging while living in an environment of intolerance, group exclusion, or poor respect for other people.

The measurement of social cohesion, like that of social capital, remains a debated topic. Attempts at operationalizing the concept have been limited by the shortage of working definitions and have adopted multiple forms, such as the elaboration of macro indices (Acket *et al.* 2011), specific aspects of social cohesion – e.g., neighbourhood cohesion – (Kim, Park and Peterson 2013; Cagney *et al.* 2009; Stafford *et al.* 2003), or more instrumental and narrow definitions in which the richness of the concept gets diffused (see, for example, Easterly, Ritzen, and Woolcock 2006).

Table 2. Alternative definitions of social capital, social cohesion and social exclusion

Social Capital	
Bourdieu, P. (1986)	‘The aggregate of the actual or potential resources which are linked to possession of a durable network of more or less institutionalized relationships of mutual acquaintance or recognition’ (p. 248).
Putnam, R. (1995)	“‘social capital’ refers to features of social organization, such as networks, norms, and trust, that facilitate coordination and cooperation for mutual benefit’ (67).
Coleman, J. (1988)	‘a variety of different entities, with two elements in common: they all consist of some aspect of social structure, and they facilitate certain actions of actors — whether personal or corporate actors — within the structure’ (p. S98).
Stiglitz, Sen and Fitoussi (2009)	‘social networks and the associated norms of reciprocity and trustworthiness’ (p. 182).

recognises this problem and calls for more work on the development of solid indicators for measuring social connectedness. It provides, as reference, a list of questions used in the U.S. The list of these suggested questionnaire items can be found in Appendix 2.

<sup>24</sup> Alternative definitions of social cohesion can be found in Table 2.

<b>Social Cohesion</b>	
Rosell <i>et al.</i>	'the processes of building shared values and communities of interpretation, reducing disparities in wealth and income, and generally enabling people to have a sense that they are engaged in a common enterprise, facing shared challenges, and that they are members of the same community' (cited in Maxwell 1996, p. 13).
Chan <i>et al.</i> (2006)	'is a state of affairs concerning both the vertical and the horizontal inter- actions among members of a society, as characterized by a set of attitudes and norms that include trust, a sense of belonging, and the willingness to participate and help, as well as their behavioural manifestations' (p. 290).
Council of Europe (2005)	'society's ability to secure the long-term well-being of all its members, including equitable access to available resources, respect for human dignity with due regard for diversity, personal and collective autonomy and responsible participation'.
Government of Canada's Policy Research Sub-Committee on Social Cohesion	'social cohesion is the ongoing process of developing a community of shared values, shared challenges and equal opportunity within Canada, based on a sense of trust, hope and reciprocity among all Canadians' (quoted in Jenson 1998, p. 4).
Commissariat Général du Plan of the French Government.	'social cohesion is a set of social processes that help instill in individuals the sense of belonging to the same community and the feeling that they are recognized as members of that community' ( <i>ibid.</i> ).
<b>Social Exclusion</b>	
European Foundation for the Improvement of Living and Working Conditions	'the process through which individuals or groups are wholly or partially excluded from full participation in the society within which they live' (Deakin, Davis and Thomas 1995, p.4).
Observatory on National Policies to Combat Social Exclusion	Defined 'in relation to the social rights of citizens ... to a certain basic standard of living and to participation in the major social and occupational opportunities of the society' (Room 1992, cited in Gore 1995, p. 2).
Commission of the European Communities (1993)	'social exclusion refers, in particular, to inability to enjoy social rights without help, suffering from low self-esteem, inadequacy in their capacity to meet their obligations, the risk of long-term relegation to ranks of those on social benefits, and stigmatization' (cited in Rodgers 1995, p. 43).
Silver (2007)	'Social exclusion is usually defined as a dynamic process of progressive multidimensional rupturing of the "social bond" at the individual and collective levels. By social bond, I mean the social relations, institutions, and imagined identities of belonging constituting social cohesion, integration, or solidarity. Social exclusion precludes full participation in the normatively prescribed activities of a given society and denies access to information, resources, sociability, recognition, and identity, eroding self-respect and reducing capabilities to achieve personal goals' (p. 1).

Another literature that has explored the question of social isolation is that of social exclusion. In a similar way as the other concepts previously explored, the concept of social exclusion has been defined in many different ways within this vast, rich and sometimes chaotic literature. Silver, for example, argues that 'social exclusion is usually defined as a dynamic process of progressive multidimensional rupturing

of the “social bond” at the individual and collective levels’ (2007, p. 1).<sup>25</sup> It is argued that the particular advantage of the social exclusion framework, in comparison to work that focuses solely on poverty, is the attention that is paid to issues such as the linking together of social rights and material deprivation; its focus on the effect of *process* (i.e., the dynamics behind the exclusion) and a particular state (e.g., inequality between groups with respect to social indicators) on social actors and agents (who excludes and who is excluded); its multi-level analysis, and its attention to the terms in which inclusion occurs (Babajanian and Hagen-Zanker 2012; Burchardt, Le Grand, and Piachaud 2002; Figueiredo and de Haan 1998; Gore 1995; Gore and Figueiredo 1997; Jordan 1996; de Haan 2001; Lipton 1998; Mathieson *et al.* 2008; O'Brien *et al.* 1997; Rodgers 1995). Sen, in particular, argues that ‘the real importance of the idea of social exclusion lies in emphasizing the role of relational features in the deprivation of capability and thus in the experience of poverty’ (2000, p. 4).

Theories of social exclusion have provided invaluable insights for understanding the level of social connectivity of a person. However, these rich analyses tend to overlook more direct measures of the connectivity of people, for example, how can we separate the exclusion of a particular group from the evaluation of the quality of social relationships of one of its members? Furthermore, the problems in clearly defining the concept of social exclusion have resulted in important ambiguities and the wide use of proxies for its measurement has impacted on its operationalization.<sup>26</sup> On a positive note, there have been some innovative attempts to create direct indicators. One such example is the Poverty and Social Exclusion Survey of Britain (PSE). This comprehensive survey aimed at establishing the number of people suffering from exclusion by distinguishing between four dimensions: impoverishment or exclusion from adequate income or resources; labour market exclusion; service exclusion; and exclusion from social relations (Gordon *et al.* 2000; Gordon *et al.* 2013). Exclusion from social relations, in particular, is a relevant domain as it seeks direct information about social relations and social participation by exploring different angles, including, i) non-participation in common social activities; ii) isolation; iii) lack of support; and iv) disengagement and confinement.

---

<sup>25</sup> Alternative definitions of social exclusion can be found in Table 2. See Silver (1995; 2007) for an illuminating discussion on the evolution of the term and the problems in defining it.

<sup>26</sup> As Gore, Figueiredo and Rodgers (1995) argue, ‘[t]he combination of high intuitive appeal together with flexible definition means that the notion of “social exclusion” must be treated with caution’. Silver, for example, quotes a review of sociological theories of exclusion: ‘Observers in fact only agree on a single point: the impossibility to define the status of “the excluded” by a single and unique criterion. Reading numerous enquiries and reports on exclusion reveals a profound confusion amongst experts’ (1995, pp. 59–60).

### 2.2.2 Psychological approaches

From a different perspective, there is a rich psychological literature on the phenomena of social connectedness, such as the research on loneliness, also known as *subjective social isolation*, and on specific theories of quality of life. As already mentioned, feelings of loneliness are triggered when the perceived social relationships of a person do not match his or her ideal standard of social relations.<sup>27</sup> This discrepancy between ideal and perceived social relationships is a product of a complex process. Every individual has an ideal of the number and/or quality of social relationships needed to satisfy his or her social needs. When his or her relationships do not match this ideal, a distressing feeling emerges – that of subjective social isolation. Three complex factors affect these assessments: 1) the level of vulnerability to social disconnection of an individual; 2) the ability to self-regulate the emotions associated with feeling isolated; and 3) the mental representations and expectations of, as well as reasoning about, others (Cacioppo and Patrick 2008).

Table 3. Alternative definitions of loneliness

<b>Loneliness</b>	
Weiss (1973)	'Loneliness is caused not by being alone but by being without some definite needed relationship or set of relationships.... Loneliness appears always to be a response to the absence of some particular type of relationship or, more accurately, a response to the absence of some particular relational provision.'
Young (1982)	'the absence or perceived absence of satisfying social relationships, accompanied by symptoms of psychological distress that are related to the actual or perceived absence ..... I propose that social relationships can be treated as a particular class of reinforcement... Therefore, loneliness can be viewed in part as a response to the absence of important social reinforcements.'
Perlman and Peplau (1981, p. 31)	'the unpleasant experience that occurs when a person's network of social relations is deficient in some important way, either quantitatively or qualitatively.'
de Jong Gierveld (cited in de Jong Gierveld,	'a situation experienced by the individual as one where there is an unpleasant or inadmissible lack of (quality of) certain relationships. This includes situations, in which the number of

<sup>27</sup> Alternative definitions of loneliness can be found in Table 3. Although there is general agreement over its definition, there are several theoretical approaches to conceptualising subjective social isolation. Perlman and Peplau (1982) describe eight approaches to loneliness: psychodynamic models, phenomenological, existential-humanistic, sociological, interactionist, cognitive, privacy and systems theory. These vary from understanding that the causes of loneliness lie within the individual (with roots in childhood) and thus are perceived as pathological (psychodynamic models); to understanding isolation as a feedback mechanism to maintain adequate levels of social interaction in a world where several levels (from cellular to the international arena) are operating simultaneously as a system (systems theory); to sociological understandings of loneliness as a product of social forces that lie outside the individual (Perlman and Peplau 1982). Sociological approaches, for example, have explored aspects such as the decline in primary group relations, increase in family and social mobility, how society fails to meet members' needs, and problems of individualism. The interactionist approach, in turn, understands subjective social isolation as the result of social interactions that are deficient in supplying crucial social requirements (the product of a combined or interactive effect between personality and situational factors). This approach emphasises two types of loneliness – emotional and social loneliness, distinguishing between the closeness of social connection (a spouse or close kin and a larger set of social contacts). Finally, the cognitive approach emphasises cognition as a mediating factor between deficits in sociability and the experience of loneliness. More recently, an evolutionary conceptualization of loneliness holds that subjective social isolation has deep roots in biology as well as in the social environment and it's linked with particular genetic predispositions (Hawley and Cacioppo 2009).

van Tilburg and Dykstra 2006, p. 486)	existing relationships is smaller than is considered desirable or admissible, as well as situations where the intimacy one wishes for has not been realized.’
---------------------------------------	---

It is important to note that the *distress* produced by subjective social isolation is a serious and common problem, the effects of which can be considerable, especially if it becomes chronic.<sup>28</sup> The *pain* of subjective isolation – or ‘social pain’ – is a deeply disruptive hurt that results in physiological and behavioural disruption.<sup>29</sup> The effects are striking: studies have established that chronic feelings of subjective social isolation trigger a series of physiological events that have a magnitude of risk to health comparable to the effect of high blood pressure, lack of exercise, obesity, or smoking, and can actually accelerate the ageing process (Cacioppo and Patrick 2008; House, Landis and Umberson 1988). It is also a predictor of functional decline and death among individuals older than 60 years (Perissinotto, Stijacic Cenzer, and Covinsky 2012). Cattell found that residents in East London were not only acutely aware of poverty’s deleterious effects on health, but perceived isolation as a threat to health, while associating good health with mixing with others (2001, p. 1508). Furthermore, subjective social isolation is not an uncommon phenomenon: at any given time roughly 20% of individuals in the US alone feel sufficiently isolated for it to be a major source of unhappiness in their lives (Cacioppo and Patrick 2008).<sup>30</sup>

There is also a relatively large literature on the deleterious psychological effects of social isolation, where it is related to feelings of loneliness and despair (Bordi and Nicholson 2013), along with research into the affective responses to social exclusion, which include social anxiety, jealousy, loneliness, and depression (Baumeister and Tice 1990; Leary 1990). Like social exclusion and rejection, social isolation can have ‘intense and often disruptive effects ... on individual cognitive, motivational, and emotional functioning’ (Brewer 2005, p. 344–45). Poor people themselves make clear the deeply negative effects of social isolation, for example, an interviewee from Bangladesh in the Voices of the Poor study, explained

<sup>28</sup> All individuals are prone to feel loneliness at several points in their lives. However, this becomes ‘an issue of serious concern only when it settles in long enough to create a persistent, self-reinforcing loop of negative thoughts, sensations, and behaviors’ (Cacioppo and Patrick 2008, p. 7).

<sup>29</sup> See, for example, Cassidy and Asher (1992); Cole *et al.* (2007); Eisenberger, Lieberman and Williams (2003); Gustafsson *et al.* (2012); Hawkey and Cacioppo (2010); MacDonald and Leary (2005); Stranahan, Khalil and Gould (2006); Westerlund *et al.* (2012); and Wilson *et al.* (2007). Eisenberger, Lieberman and Williams (2003) have tested the neural correlates of social exclusion through a neuroimaging study and concluded that the brain bases of social pain are similar to those of physical pain.

<sup>30</sup> Our increasing dependency on technology may be further exacerbating problems of isolation. As Slater (1976, cited in Perlman and Peplau 1982) observed, ‘One of the major goals of technology in America is to “free” us from the necessity of relating to, submitting to, depending upon, or controlling other people. Unfortunately, the more we have succeeded in doing this, the more we have felt disconnected, bored, [and] lonely.’ Turkle (2011), in turn, suggested that our increasing relationship with technology is related to being afraid of intimacy and deeply bound to the feeling of ‘no-one is listening to me’. New forms of jobs, such as working from home or ‘remote’ work may further exacerbate this problem. However, there are mixed findings here, because technology may also help reduce isolation for, say, people who are very geographically isolated or profoundly disabled. Lelkes (2012), for example, has found that people age 65 or older who use the Internet regularly have a lower chance of being isolated.

that being too poor to participate in community gatherings, and thus having to remain isolated in the house, is when a ‘person goes mad and wishes to commit suicide’ (cited in Narayan et al. 2000b, p. 258). In fact, social isolation is linked to suicide in both a direct and fundamental way (Trout, 1980) and has been found to increase suicidal thoughts, particularly among young women (Bearman and Moody 2004).

Theories of loneliness clearly provide extremely relevant inputs to understanding the connectivity of a person. In a way, it could be argued that the perception of the inadequacy of the social relationships of a person, with respect to his or her ideal standard of relationships, could be the definitive assessment of social isolation (e.g., people who suffer from high levels or chronic loneliness). Yet, as the other theories surveyed in this paper have compellingly demonstrated, aspects such as the instrumental value of social relations or social environmental factors are also crucial for an overall assessment of the social connectivity of a human being. For example, a person might feel lonely yet participate in crucial networks that increase her well-being (i.e., she might deem her relationships inadequate yet continue to participate and benefit from this participation).

In terms of measurement, the use of psychometric scales in specific contexts and clinical trials for measuring loneliness is well established (more on this, below). However, there are only a few examples of using these scales in large surveys. An interesting example in which a loneliness scale has been used for cross-country comparisons is provided by de Jong and Van Tilburg (2010). In a seven country study, including France, Germany, the Netherlands, Russia, Bulgaria, Georgia, and Japan, with surveys sizes varying between 8,158 and 12,828, these authors found that emotional and social loneliness can be measured using a six-item scale (three items measuring emotional loneliness and three items measuring social loneliness). One of the findings of the study is that the association between emotional and social loneliness proved to be significantly related to a shortage of resources in both younger and older adults.

### *2.2.3 Cross-national and national experiences*

Both nationally and internationally, there have been interesting attempts to evaluate social connections. The OECD (2011), for example, uses four indicators from the social capital literature to provide a glimpse into ‘social connections’: i) social network support, ii) frequency of social contact, iii) time spent volunteering, and iv) trust in others. These indicators were selected due to their capacity to inform analysts about both informal and formal types of social connections (i and ii, respectively) and as measures of important individual and societal outcomes (iii and iv). Unfortunately, due to the lack of a single data source that encompasses all four indicators, data for each indicator must come from different

sources, thus preventing an analysis of the situation of the same person vis-à-vis these four aspects.<sup>31</sup> In turn, the U.K.'s Office for National Statistics (ONS) has been exploring the following domains as part of its Measuring National Well-being Programme: personal relationships and loneliness, family relationships, friendships, and community (see Table 4 for the indicators used) (Self, Thomas and Randall 2012). As with the exercise advanced by the OECD, data for these indicators come from different survey instruments, making it impossible to assess the overall level of connectivity of a single individual.

**Table 4. Potential domains and indicators for assessing relationships – ONS**

Personal relationships	<ul style="list-style-type: none"> <li>• Satisfaction with personal relationships</li> <li>• Perception of loneliness.<sup>32</sup></li> </ul>
Family relationships	<ul style="list-style-type: none"> <li>• Time spent with family every day or most days during the last two weeks</li> <li>• Satisfaction with spouse or partner</li> <li>• Self-report of partnership as being extremely happy or perfect</li> <li>• Satisfaction with the well-being of own children</li> <li>• Frequency with which children quarrel with their parents</li> </ul>
Friendships	<ul style="list-style-type: none"> <li>• Time spent together with friends</li> <li>• Satisfaction with relationship with friends</li> <li>• Satisfaction with social life</li> <li>• Communication method for making contact with friends to arrange a meeting</li> <li>• Intensity of social networking</li> </ul>
Community	<ul style="list-style-type: none"> <li>• Trust</li> <li>• Feeling of belonging to own neighbourhood</li> <li>• Participation in group activities</li> <li>• Mixing socially with people from different ethnic or religious backgrounds in a range of settings (excluding at home)</li> <li>• Satisfaction with people you work with</li> <li>• Perception of relationships between managers and employees</li> </ul>

Source: Based on Self, Thomas, and Randall (2012)

Finally, New Zealand's *Social Report* provides an interesting example of a national government using a mixture of social capital and subjective social isolation indicators to assess the state of social connectedness in the country.<sup>33</sup> This report, published since 2001, blends a series of social indicators with economic and environmental variables to provide information on progress in outcomes, changes over time, and group differences in social outcomes.<sup>34</sup> The report contains data on ten domains: i) health, ii) knowledge and skills, iii) paid work, iv) economic standard of living, v) civil and political rights, vi) cultural identity, vii) leisure and recreation, viii) safety, ix) *social connectedness*, and x) life satisfaction.

<sup>31</sup> The OECD distinguishes between headline indicators (most of which come from official statistics) and secondary indicators. The indicator on Social Network Support has been selected by the OECD to be its headline indicator for the 'social connections' dimension of well-being. Data for this indicator comes from the Gallup World Poll. See OECD (2013) for a discussion on this.

<sup>32</sup> Measured by asking the question: 'How lonely do you feel in daily life?'

<sup>33</sup> See Cotterell and Crothers (2011) for a discussion on the evolution of social indicators in New Zealand and the conception of this report.

<sup>34</sup> See Government of New Zealand (2010) (<http://socialreport.msd.govt.nz>).

The report defines social connectedness as ‘the relationships that people have with others and the benefits these relationships can bring to the individual as well as to society’ (New Zealand Ministry of Social Development 2010, p. 110). It reports five commonly used indicators from the social capital literature with a concrete question on subjective isolation to measure social connectedness.<sup>35</sup>

The social connectedness section of New Zealand’s *Social Report* is an extremely interesting example of an attempt to combine external and internal indicators in order to achieve a fuller assessment of the level and ultimate quality of social connectedness of an individual. However, there are three problems with this conceptualisation and measurement in regards to using this experience to generate internationally comparable indicators. First, as with other exercises of this type, lack of data availability results in the use of multiple data sources for the different indicators, including using surveys from different years (some of them with considerable gaps) (Cotterell and Crothers 2011). This renders it impossible to analyse the situation of a person in each one of these aspects at the same time. Second, some of the external indicators used (such as telephone and Internet access in the home) would need to be adjusted in order to reflect different levels of development and to account for urban/rural differences relevant to developing areas of the world. Third, the direct use of the term ‘isolated’ in questions attempting to capture data on this state may be problematic.<sup>36</sup>

#### 2.2.4 Poverty and social isolation

A diverse range of literature understands social isolation as a product of modern Western society, where there are increasing reports of people not only ‘bowling alone’ (Putnam 2000), but also dying alone (Klinenberg 2001). The idea that the structure of ‘modern society’ produces isolation has a long historical lineage. For Fromm (1942/2001), the modern industrial system affects people in two simultaneous ways: in part, they become more independent, and yet they also become more alone, separate, and isolated. Thus, one aspect of modern freedom is ‘the powerlessness and insecurity of the isolated individual in modern society who has become free from all bonds that once gave meaning and security to life ... the individual cannot bear this isolation; as an isolated being he is utterly helpless in comparison with the world outside and therefore deeply afraid of it; and because of his isolation, the

---

<sup>35</sup> The indicators are: 1) telephone and Internet access in the home; 2) contact with family and friends; 3) contact between young people and their parents; 4) trust in others; 5) loneliness; and 6) voluntary work.

<sup>36</sup> The actual question reads as following: ‘Some people say they feel isolated from the people around them while others say they don’t. They might feel isolated even though they see family or friends every day. In the last four weeks, how often have you felt isolated from others?’ The use of the specific term in questions enquiring about these types of states is often criticised. For example, discussing the use of the term ‘loneliness’ in questions attempting to assess this state, Rook (1988) argues that while the term is meaningful to many people, it is also a fuzzy concept with multiple meanings. This may result in a strong reporting error. Moreover, the attached stigma to feelings of loneliness may prevent some older people from reporting it (Rotenberg and MacKie 1999; Victor *et al.* 2000).

unity of the world has broken down for him and he has lost any point of orientation' (Fromm 1942/2002, p. 221). Here isolation is an outcome of modern society (though not necessarily, for Fromm, an inevitable one), where it is assumed that while people's suffering from poverty has reduced, their suffering due to isolation and powerlessness has increased.

This is also evident in Hortulanus, Machielse and Meeuwesen's (2006) seminal study, which explores the nature and scope of social isolation in modern Western society and argues that 'in Western cultures, health-threatening events such as war and poverty play less of a role, but issues related to social cohesion, mutual involvement and social-emotional functioning are more at the forefront when it comes to well-being' (p. 100). Here societal isolation, as a form of social disadvantage, is understood to characterize a form of 'modern poverty' in that it represents an inability to participate in all aspects of society (p. 137).

However, there is a dearth of research that explicitly examines the relationship between poverty and social isolation, despite the fact that studies have shown that many people in developing countries understand social isolation as a relevant aspect of their experience of poverty (Narayan *et al.* 2000b). For example, in the Voices of the Poor study, a group of Roma from Sofia said that 'If you are alone, you are dead' (cited in Narayan and Petesch 2002, p. 258). And some inhabitants of a village in Russia explained that 'everyone is on their own now; the poor envy the rich and the rich scorn the poor; we don't visit friends as often as we used to; people are hostile and alone' (cited in Narayan *et al.* 2000b, p. 173). Yet, the small amount of research that has been done into social isolation and poverty has tended to focus on the interconnections of poverty and social isolation in high-income countries, such as in Canada (Stewart *et al.* 2009), and the United States (Tigges *et al.* 1998), and many indicators to measure social connectedness have yet to be tested in developing countries.

Research has tended to examine social isolation in relation to a number of other concepts, namely, 'alienation, aloneness, loneliness, powerlessness, and stigma' (Warren 1993, p. 272). However, few studies explicitly examine the relationship between poverty and social isolation. Tigges, Browne and Green argue that '[i]n examining social isolation as a purely individual-level phenomenon, researchers often neglect the connection between social ties and the settings in which they are produced' (1998, p. 57). Sociological and ethnographic work in this area embeds social isolation within social contexts and explores the social production and lived experience of social isolation. Much of this research stems from the work of William Julius Wilson, who defined social isolation as 'the lack of contact or of sustained interaction with individuals or institutions that represent mainstream society' (1987, p. 60). Here, social isolation is conceptualized as a 'commentary on a form of relationship' (which can be, for example,

spatial, political, or familial), embedding social isolation within wider power relations (Venkatesh 2003, p. 1068).

This draws attention away from simply counting numbers of social contacts. While more frequent contact may imply strong ties with other people, according to Granovetter (1973; 1982), such strong ties tend to involve a high concentration of energy that serves to fragment communities of the poor into units that have little connection between groups. For example, using data from household surveys in Atlanta, Tigges, Brown and Green (1998) measured the extent of social contact by a) whether the respondents lived with another adult and b) the presence and number of ‘discussion partners’ – whether the person has someone outside the home to talk to about things that are important to them.<sup>37</sup> Documenting the socioeconomic characteristics of the discussion partners enabled the researchers to compare the networks of low- and high-income households, not only in number but also in who made up the discussion partners. Tigges et al. found that ‘living in a concentrated poverty neighbourhood reduces by one-half the probability of having a close tie compared with living in low-poverty neighbourhoods’ (1998, pp. 70–71), leading them to conclude that ‘the poor, who are in greatest need of resources provided by social ties, tend to have smaller and less diverse networks’ (Tigges *et al.* 1998, p. 55; see also Fischer 1982). Furthermore, Campbell and Barrett (1992) have found that people with higher incomes tend to have more extensive networks, while those with lower incomes have more frequent contact with a smaller network. From such research it would seem that weak ties between diverse groups can have a stronger cohesive power than strong ties within a smaller and more homogenous group.

Moreover, the diversity of these networks (the characteristics of the people who make up a person’s social network) is of central importance. Wilson (1987) suggests that having close ties to people who are employed and who have a college education helps people to be tied into social resources that reduce social isolation (such as job networks and information about services). But, Stewart et al. (2009) found that people with lower incomes tended to affiliate more, and experience a stronger sense of belonging with, people in a similar economically marginalized situation; and Tigges et al. found that ‘living in a high-poverty neighbourhood decreases the likelihood of having an employed close tie by 57 percent’ (1998, p. 71).

---

<sup>37</sup> The researchers asked people, ‘From time to time, most people discuss important matters with other people. Looking back over the last six months, who are the people, other than people living in your household, with whom you discussed matters important to you?’ (Tigges *et al.* 1998, p. 58).

The sociological literature on social isolation allows a move beyond the simplistic divide between subjective/objective isolation by exploring ‘how norms, attitudes, cultural repertoires, meaning making, decision making and behaviours are developed, perpetuated, and reinforced through social participation in highly restrictive and insulated social settings’ (Quane and Wilson 2012, pp. 1–2). This draws attention to ‘how individual agency engages with the restricted range of social and structural constraints in socially isolated ... neighbourhoods’, making conceptual links between the social isolation and socialization of the inner-city poor (*ibid*, p. 1). In line with this, Tigges et al. demonstrate that ‘neighbourhood poverty has a consistent negative effect on African Americans’ social contacts’ and ‘an independent effect on social isolation and access to social resources’ (with racial isolation interconnecting with this) (1998, pp. 70 and 72). This calls attention to the structural factors affecting social isolation (such as lack of employment, education, and transport) and how poverty may exacerbate social isolation, just as social isolation may increase the likelihood of living in poverty. Similarly, in a survey by the mental health charity Mind (2004), poverty, and specifically a lack of transport and poor housing, was rated as a major cause of isolation by over a third of respondents with mental health problems (p. 11). Klinenberg’s (2001) ethnographic account of ‘dying alone’ in Chicago further illuminates the part played by poverty in both the lived experience and social production of isolation, and ‘the demographic, cultural and political conditions that constitute the wider social context in which social isolation emerges’ (p. 507). Furthermore, Stewart et al. found that over half of the people they interviewed who lived on low incomes distanced themselves from others when social activities required financial capital, or if they feared stigmatization due to their low income, leading the researchers to conclude that ‘the stresses of living on a low income also could result in self-isolation’ (2009, p. 186).

The sociological and ethnographic literature on the varying and multiple relationships between social isolation and poverty in diverse contexts, alongside participatory work on poverty in developing countries (Narayan *et al.* 2000b; Brock 1999), are important for various reasons. First, they enable conceptualization of *what it is* that people (and particularly poor people) may be isolated from and why this matters within poverty analysis. Second, they allow exploration of the links between intangible and tangible aspects of isolation (for example, how less quantifiable feelings of isolation interconnect with more tangible experiences, such as lack of resources) (Brock 1999). Third, this literature highlights methodological issues in measuring isolation by pointing out that because people who are isolated have few ties to informal or formal support networks they are, within survey tools, ‘among the social types most likely to be uncaptured or undercounted’ (Klinenberg 2001, p. 506). This leads to a lack of systematic data on the extent of isolation in the general population and means that the prevalence of isolation is often underestimated. Finally, these rich literatures ensure that the measurement of social isolation is not isolated from relational practices and local contexts of meaning making and power

relations – highlighting its ‘grounded complexity’ and preventing an understanding of social isolation that is overly abstract and broad (a major critique that is levelled at social capital) (du Toit, Skuse and Cousins 2007, p. 533).

Social isolation is also intrinsically linked to two other concrete aspects of relational poverty, namely shame and humiliation. Shame and humiliation are affective states that define distinct yet related aspects of human psychology.<sup>38</sup> The sense of shame and humiliation that poverty can bring can be related to many aspects of life. For example, they can be related to being unable to do what is customary in society or to being a member of a section of society to which negative values are attached. The effects of these affective states on psychological well-being are multiple and have been associated with numerous psychosocial maladies (e.g., low self-esteem, social phobia, anxiety, and depression) (Hartling and Luchetta 1999; Tangney and Dearing 2002; Zavaleta 2007). These experiences continue to surface and be named by poor people and communities as painful components of their deprivation (Narayan et al. 2000a, 2000b; Leavy and Howard 2013).

Both affective states can, and often do, result in the withdrawal of a person from social life. For example, a person who suffers from the stigma of poverty or constant acts of discrimination may decide not to expose herself to these hurtful feelings or may experience the shame of not being able to do what is customary in society (e.g., paying for your daughter’s wedding or bringing food to share in church). The opposite relation is also common: isolation can result or reinforce stigma or acts of discrimination. In certain cultures, for example, not participating in the community is taken as a symbol of the isolated person’s rejection of the wider group or perceived as evidence of personality problems. Yet none of the above is a causal relation; there are plenty of situations in which shame and acts of humiliation do not result in the social isolation of an individual – indeed, they may even increase his or her connectedness with particular groups (for example, minority groups whose members suffer discrimination yet have extremely strong ties among themselves).

---

<sup>38</sup> See Zavaleta (2007) for a discussion on these affective states in relation to poverty.

### 3. Potential Indicators

Following the above conceptual discussion of isolation and connectedness, this section describes a set of potential indicators to provide quantitative data on social connectedness. The selection of indicators followed the guiding principle of drawing upon the domains and indicators tested and found reliable by other major initiatives. Table 5 provides a summary of different initiatives to gather data on aspects of social connectedness. In particular, it follows the recommendations by the Commission on the Measurement of Economic Performance and Social Progress regarding indicators of social connectedness (the list of questions on social connections used in the U.S. provided as an example by the report can be found in Appendix 2). After thorough testing, these questions have been found reliable, intelligible, and inoffensive (Stiglitz, Sen and Fitoussi 2009). However, the Commission recognises that social connections go beyond these particular aspects and suggests also exploring social trust, social isolation, informal support, workplace engagement, religious engagement, and bridging social capital. It also follows the OECD's position regarding indicators on social connections: 'Ideally, a set of indicators of social connections should describe a range of different relationships, as well as the quality of those relationships and the resulting outcomes for people (i.e., emotional and financial support, job opportunities, social isolation) and for society (i.e., trust in others, tolerance, democratic participation, civic engagement)' (2011, p. 172).

Table 5. Different initiatives on social connectedness

	The World Bank's SC-IQ <sup>39</sup>	Commission on the Measurement of Economic Performance and Social Progress <sup>40</sup>	OECD <sup>41</sup>	Office of National Statistics U.K. <sup>42</sup>	New Zealand's Social Report <sup>43</sup>	Hortulanus, R., Machiels, A. and Meeuwesen, L. <sup>44</sup>	Misure del benessere <sup>45</sup>	The Poverty and Social Exclusion Survey of Britain <sup>46</sup>
Satisfaction with personal relationships				X				
Satisfaction with social life				X				
Satisfaction with spouse or partner				X				

<sup>39</sup> Grootaert *et al.* (2004).

<sup>40</sup> Stiglitz, Sen and Fitoussi (2009).

<sup>41</sup> OECD (2011).

<sup>42</sup> Self, Thomas and Randall (2012).

<sup>43</sup> see [http://www.stats.govt.nz/surveys\\_and\\_methods/a-z-of-our-surveys/general-social-survey/nzgss-questionnaires.aspx](http://www.stats.govt.nz/surveys_and_methods/a-z-of-our-surveys/general-social-survey/nzgss-questionnaires.aspx)

<sup>44</sup> Hortulanus, R., Machiels, A. and Meeuwesen, L. (2006).

<sup>45</sup> see <http://www.misurelbenessere.it>

<sup>46</sup> Gordon *et al.* (2000).

Satisfaction with family				X			X	
Satisfaction with friends				X			X	
Satisfaction with people you work with				X				
Self-report of partnership as being extremely happy or perfect				X				
Frequency of contact with family		X		X	X			X
Frequency of contact with friends		X	X	X	X			X
Frequency of contact with neighbours		X						
Number of close friends/friends	X	X						
Relationship with children/youth				X	X		X	
Social network support	X	X	X				X	X
Feeling of belonging to own neighbourhood				X				
Loneliness				X	X	X		
Free aid data								
Social participation								
Volunteering		X	X		X		X	
Provision of unpaid aid							X	
Donating funds to associations		X					X	
Number of non-profit organizations							X	
Number of social cooperatives							X	
Participation in groups	X	X					X	
Non-participation in common social activities								X
Confinement								X
Reciprocity/solidarity/cooperation	X	X						
Trust	X	X	X	X	X		X	
Trust in workmates		X						
Religious engagement		X						
Access to communication methods/preferred method for making contact with friends to arrange a meeting	X	X		X	X			
Intensity of social networking				X				
Participation in group activities				X				
Collective action	X							
Mixing socially with people from different ethnic or religious backgrounds in a range of settings (excluding at home)		X		X				
Perception of relationships between managers and employees				X				
Emotional support						X		
Instrumental support						X		

Social companionship						X		
Existence of other significant persons						X		
Actual support received						X		
Actual support given						X		
Changes in network size						X		
Sources of protection						X		
Social isolation risk factors						X		
Happiness	X							
Sources of information	X	X						
Social cohesion	X							
Physical safety	X							X
Empowerment	X							
Political participation/civic engagement	X	X					X	X

The selection of potential indicators put forward in this paper applied these recommendations. The proposed indicators draw on several of the examples employed by the initiatives discussed throughout this paper, exploring different levels of social relationships (personal, family, friendship, and community) and a diversity of the suggested domains, such as trust and informal support. More importantly, wherever possible this paper privileges the use of direct measures of connectedness over the use of proxies. This exploratory module will allow testing of these indicators and an exploration of their usefulness with respect to the concept of social connectedness mapped in this paper.

This paper suggests the following domains as a basis for developing indicators for measuring social isolation:

a) External social isolation

- Frequency of social contact
- Social network support
- Presence of a discussion partner
- Reciprocity and volunteering

b) Internal social isolation

- Satisfaction with social relations
- Need for relatedness
- Feeling of belonging to own neighbourhood/village/community
- Loneliness
- Trust

This paper proposes the use of three proxies to capture data on external isolation: i) Frequency of social contact, ii) Social network support, and iii) Reciprocity and volunteering. **Frequency of social contact** has strong links with well-being, allows estimation of the level of objective social isolation, and is a proxy for meaningful relations (Kahneman and Krueger 2006; Krueger *et al.* 2009; Stiglitz, Sen and Fitoussi 2009). This paper proposes to capture data on two aspects: frequency of contact with family (proposed by OECD 2011)<sup>47</sup> and frequency of contact with friends (used in the PSE survey in Britain).

In turn, **social network support** provides an approximation of the existence (or perceived existence) of supportive relationships. This support can have intrinsic value for a person (such as emotional support or sense of security) and/or instrumental value (e.g., help financially to overcome a crisis). The indicator selected for this domain is from the Gallup World Poll (OECD 2011) but includes a follow-up question in line with the suggestion from Stiglitz, Sen and Fitoussi (2009).

Much research emphasises the importance of having a close friend or discussant with whom to discuss important matters. A number of studies use this as a measure of the extent of a person's social contacts, the meaningfulness of those contacts, and the size of a person's social network (see, for example, Harper and Kelly 2003; Tigges, Brown and Green 1998; and Van Tilburg *et al.* 1991). This paper proposes to capture data on the **presence of a discussion partner** by borrowing a question from the European Social Survey Round 5 (2010).<sup>48</sup>

Although related, **reciprocity** and **volunteering** demand several indicators due to their particularities and complexities. Despite being the 'touchstone' of social capital, reciprocity remains under-theorized and rarely measured, partly because it is difficult to summarise in a simple question (Abbott and Freeth 2008), and also because norms of reciprocity are complicated to operationalize (Hyypä 2010). Attempts to measure reciprocity have often centred on perceived helpfulness of others.<sup>49</sup> However, Abbott and Freeth (2008) argue that such questions seem to be measuring perceived helpfulness more than reciprocity. In fact, measures of the norms of reciprocity had previously been unavailable to survey-based comparative research until the inclusion of six different measures of reciprocity (both positive and

---

<sup>47</sup> A discussion on the statistical quality of the indicators proposed by the OECD can be found in OECD (2011, p. 173).

<sup>48</sup> see <http://www.europeansocialsurvey.org>.

<sup>49</sup> Kawachi *et al.*, for example, asked participants: 'Would you say that most of the time people try to be helpful, or are they mostly looking out for themselves?' (1997, p. 1492). In turn, Pollack and von dem Knesebeck asked participants to agree or disagree with the statement: 'In my neighbourhood, most people are willing to help others' (2004), while Lochner *et al.* asked participants to agree or disagree with the statement: 'people around here are willing to help their neighbours' (2003). Finally, Maximiano (2012) proposes 'If someone does something that is beneficial to me, then I am prepared to return a favour, even when this was not agreed upon in advance' and 'If I do something that is beneficial for someone else, then I expect that person to return a favour.'

negative) in the German Socio-Economic Panel (GSOEP) in 2005 (see below) (Dohmen 2006; Gundelach and Traummuller 2013).

Moreover, there are important distinctions between reciprocity and altruism, to the point that Abbott and Freeth (*ibid.*) argue that volunteering should not be considered an expression of reciprocity. Onyx and Bullen (2000), for example, found that questions about direct reciprocity, such as ‘If you help a neighbour is it important that they repay the favour as soon as possible’ bore no relation to factors of social capital and that more focus was needed on generalised reciprocity.<sup>50</sup> Also, while much research uses volunteering as an indicator of social connectedness, there is little evidence to suggest the relevance of this cross-culturally within international research. Robinson and Williams (2001), for example, point to the difference between altruism marked by *giving* (seen to be more dominant within a European and North-American context) and reciprocity marked by *sharing*. This distinction is important because sharing is understood as a form of cultural obligation and therefore not ‘voluntary’, and it would thus be overlooked within indicators that solely focussed on volunteering. Thus, it seems important to measure both reciprocity and volunteering as aspects of social connectedness.

Furthermore, while research has tended to treat social trust as a universal basis in the measurement of social cohesion, Hooghe (2007) argues that trust is an inadequate indicator compared to reciprocity. While social trust relies on ‘thick’ value consensus, norms of reciprocity do not presuppose consensus and are based on mutual recognition of ‘thin’ procedural norms (Hooghe 2007). Therefore, while often treated as interchangeable, trust and reciprocity are distinct, differing both conceptually and empirically, with survey measures forming separate dimensions (Gundelach and Traummuller 2013). This has led Gundelach and Traummuller (2013) to conclude that reciprocity, despite being neglected within research, constitutes the foundation of social trust (rooted in actual experiences of trustworthiness, rather than its perception), making it a vital element of social capital and an alternative foundation to social cohesion, especially in culturally diverse societies. This paper proposes indicators to measure both trust and reciprocity.

While support from personal relationships has been found to be a key factor for well-being, it seems even more important that this support is reciprocal. In part this is because giving too little, or the inability to give, may lead to feelings of shame or guilt, while giving more than one receives may lead people to feel exploited; this in turn can lead to power imbalances in relationships and eventually the

---

<sup>50</sup> Examples of attempts to measure reciprocity directly can be found in Ziersch et al (2005) (‘Have you assisted neighbours and friends?; Have neighbours or friends assisted you?’) and Antonucci, Fuhrer and Jackson (1990) (‘Right now, would you say you provide more support advice and help to your (spouse, mother, father, child and friend) in your support network, is it about equal or does he or she provide more to you?’).

termination of the relationship (Van Tilburg *et al.* 1991). Others (Deci *et al.* 2006) have found that giving autonomy support (relational support, responsiveness to others, and mutuality) to close friends is a higher predictor of well-being than receiving this support. Both of these insights are important when researching reciprocity in contexts of poverty, particularly when taking into consideration Thomas *et al.*'s (2010, pp. 31 and 39) assertion that social capital may be a 'conditional resource' – meaning that those who are better able to capitalise on human and economic capital may remain poor but yet able to cope, while the chronic poor may remain so because of their inability to reciprocate (in terms of material resources). Thus, as documented in participatory research, 'poverty can pose a choice between isolation and shame' (Narayan *et al.* 2000b, p. 258), marking one of the many 'difficult trade-offs and impossible choices' (Leavy and Howard 2013, p. 40) that constitute many poor people's daily realities and further highlighting the links between isolation and shame in people's experiences of poverty. Also, while honouring the resilience of people living in poverty and the importance of social connectedness, we should not take the existence of social support networks among the poor for granted or overlook the ways that economic policies and societal structures can enhance or erode these networks (Gonzalez 2007).

In light of the above concerns, this paper proposes specific questions on both reciprocity and volunteering. The questions on reciprocity have been borrowed from the German Socio-Economic Panel (GSOEP) (2005), as outlined in Dohmen *et al.* (2006) and Gundelach and Traunmuller (2013). While these measures are centred on attitudes, there is experimental evidence to suggest that answers to the survey items do correspond to behaviour (Gundelach and Traunmuller 2013). In turn, this paper proposes to use questions on volunteering proposed by the U.S. Current Population Survey and suggested by Stiglitz, Sen and Fitoussi (2009).

To capture data on aspects of internal isolation, namely, satisfaction with social relations, need for relatedness, feeling of belonging to one's own neighbourhood, loneliness, and trust, this paper proposes to use a series of indicators.

The indicators on **satisfaction with social relations** and **need for relatedness** follow the proposal advanced in the accompanying paper within this series on psychological and subjective well-being (Samman 2007).<sup>51</sup> The former tests the subjective satisfaction of a person within different specific

---

<sup>51</sup> OPHI's Missing Dimensions of Poverty Data explores indicators for five dimensions of life for which there is little or no effort to collect data on an internationally comparable scale and that have been widely named by people living under poverty as relevant to their experience. The dimensions explored are quality of work, empowerment, physical safety, psychological and subjective well-being, and social connectedness. For further details, see: <http://www.ophi.org.uk/research/missing-dimensions/>.

domains of life.<sup>52</sup> This paper proposes to add a series of specific aspects to this list, including satisfaction with friends, family, spouse or partner, and work colleagues. These specific aspects are highly ranked in Cummins (1996) review of the most commonly relevant domains of life satisfaction (see also Samman 2007) and follow the suggestion of the U.K.'s Office of National Statistics regarding measuring different levels of social relationships (ONS 2011). In turn, the latter is one of the three scales from the Basic Psychological Needs Scales advanced in self-determination theory (SDT) (Ryan and Deci 2000, 2001). Self-determination theory postulates that social-contextual conditions rather than merely biological endowments determine how proactive and engaged or, alternatively, passive and alienated, human beings can be; hence, it investigates the 'factors.... that enhance versus undermine intrinsic motivation, self-regulation, and well-being. The findings have led to the postulate of three innate psychological needs – competence, autonomy, and relatedness – which when satisfied yield enhanced self-motivation and mental health and when thwarted lead to diminished motivation and well-being' (Ryan and Deci 2000, p. 68). As with the previous indicator, we follow Samman (2007) for the short-form of this particular scale.

Next, the indicator used to measure **feeling of belonging** to one's own neighbourhood is derived from the U.K.'s Department for Communities and Local Government Citizenship Survey 2010– 2011. A feeling of belonging has been linked to well-being, attests to the existence of meaningful relations with the community, and is related to a person's sense of identity (ONS 2011).

The questions chosen to measure **loneliness** are a short module of the UCLA Loneliness Scale (Version 3) (Russell 1996, 1982) and the de Jong Gierveld short scales for emotional and social loneliness (de Jong Gierveld and Van Tilburg 2006, 2010). Loneliness is associated with a low level of education and poor income (de Jong Gierveld and Van Tilburg 2010; Hawkey *et al.* 2008; and Savikko *et al.* 2005). Loneliness scales constitute a direct assessment of a person's perception of the quality of his or her relationships. The two scales proposed here have been widely used for research on loneliness (Cattan *et al.* 2005; de Jong Gierveld and Van Tilburg 2006; Pinquart and Sörensen 2001; Russell 1996). The UCLA Loneliness Scale (Version 3) has been found to be a highly reliable measure – both in terms of internal consistency and test-retest reliability over a one-year period –and to have convergent and construct validity (Russell 1996). While the original scale consists of 20 items, this paper proposes to use a four-item version suggested by Russell due to the time constraints involved in large survey exercises (1982, pp. 94–96). In line with Russell (1996), the wording has thus been modified. The de Jong Gierveld scale, in turn, has been found to be a valid and reliable measurement instrument to capture feelings of both

---

<sup>52</sup> These include: 1) Life overall; 2) Food; 3) Housing; 4) Income; 5) Health; 6) Work; 7) Local security level; 8) Friends and Family; 9) Education; 10) Neighbourhood; 11) Ability to help others; 12) Well-being from spiritual, religious or philosophical beliefs.

emotional and social loneliness, and, particularly relevant for this exercise, is suitable for large surveys (de Jong Gierveld and Van Tilburg 2006). Testing both scales will allow a determination of the advantages and disadvantages of each scale for the purpose of this exercise (e.g., the advantages of a shorter scale versus the potential information on emotional and social loneliness that a larger scale could provide).

In regards to **trust**, different questions have been selected to capture data. This selection follows the approach of the SC-IQ on measuring trust, namely, a) to blend questions on generalised trust with the extent of trust in specific types of people/institutions or transactions and b) to use multiple questions in order to cross-validate the responses. Two elements have been added to the original SC-IQ proposal. First, the list of specific types of people/institutions have been enlarged to include trust in private enterprises and the legal system to allow testing of a more specific hypothesis with respect to trust and institutions. Also, a situational question has been added following Stiglitz, Sen and Fitoussi, as it is more specific and quasi-behavioural and thus more reliable than generalised questions (2009, p. 185).<sup>53</sup> This question, however, needs to be carefully adapted to local contexts.

The following section introduces each indicator and the data collection questions.

### 3.1. External social isolation

#### *Question 1. Frequency of contact with family.*

Data collection question (Survey of Public Attitudes And Behaviours Towards the Environment 2011):<sup>54</sup>

How often in the previous two weeks have you spent time together with family?

Response structure:

- a) Every day b) Most days c) Few days d) Never

#### *Question 2. Frequency of contact with friends and relatives living outside the household.*

Data collection question (from EU Survey of Income and Living Conditions on Social Participation 2006):<sup>55</sup>

How often in the last week did you meet face to face with friends and relatives living outside your household?

---

<sup>53</sup> See also Glaeser *et al.* (2000) for a discussion on the standard survey questions about trust.

<sup>54</sup> In Self, Thomas and Randall (2012).

<sup>55</sup> In OECD (2011).

Response structure:

- a) Every day b) Most days c) Few days d) Never

*Question 3. Emotional support.*

Data collection question (from European Social Survey Round 5, 2010):<sup>56</sup>

Do you have anyone with whom you can discuss intimate and personal matters?

Response structure:

- a) Yes b) No c) Refusal d) Don't know e) No answer

*Question 4. Social network support.*

Data collection question (Gallup World Poll):<sup>57</sup>

a. If you were in trouble, do you have relatives or friends you can count on to help, such as financial assistance?

Response structure:

- a) Yes b) No c) Does not know/Does not want to answer

b. If yes, how much support?

*Question 5. Reciprocity.*

Data collection question (German Socio-Economic Panel - GSOEP)<sup>58</sup>

Respondents were asked to indicate on a seven-point scale how well each of the following statements applies to them personally.

- a) If someone does a favour for me, I am ready to return it  
 b) I go out of my way to help somebody who has been kind to me before  
 c) I am ready to undergo personal costs to help somebody who helped me before

Response structure: participants are asked to rate their answer between one and seven, with one being 'does not apply to me at all' and seven being 'applies to me perfectly'.

---

<sup>56</sup> see <http://www.europeansocialsurvey.org>.

<sup>57</sup> see <http://www.gallup.com/strategicconsulting/en-us/worldpoll.aspx>.

<sup>58</sup> In Dohmen *et al.* (2006).

*Question 6. Volunteering.*

Data collection question (US Current Population Survey):<sup>59</sup>

In the last 12 months have you done any volunteer activities through or for an organization?

Response structure:

- a) Yes b) No c) Does not know/Does not want to answer

### 3.2. Internal social isolation

*Question 7. Levels of satisfaction.*<sup>60</sup>

Data collection question (based on Cummins 1996):<sup>61</sup>

In general, how satisfied or unsatisfied are you with your:

1. Life overall
2. Food
3. Housing
4. Income
5. Health
6. Work
7. Local security level
8. \*\*Friends
9. \*\*Family
10. Education
11. Free choice and control over your life
12. Dignity
13. Neighbourhood/town/community/
14. Ability to help others
15. Spiritual, religious or philosophical beliefs
16. \*\*Spouse or partner

*\*\* Note: Added questions*

<sup>59</sup> In Stiglitz, Sen and Fitoussi (2009).

<sup>60</sup> Note: This question without the suggested additions is found in OPHI's Psychological and Subjective Well-being Module. If both modules are being tested at the same time, this question can be avoided. However, the question in that module needs to be complemented by the suggested additions.

<sup>61</sup> See Samman (2007).

Response structure FOR EACH ITEM:

1 = Very satisfied; 2 = Fairly satisfied; 3 = Not very satisfied; 4 = Not at all satisfied; 99 = Don't Know / No Answer

*Question 8. Need for relatedness.*

Data collection question (From Ryan and Deci Basic Psychological Needs scales):<sup>62</sup>

How true are the following statements for you?

- a. I get along well with people I come into contact with.
- b. I consider myself close to the people I regularly interact with.
- c. People in my life care about me.

Response structure:

- 1 = Not at all true
- 2 = Somewhat true
- 3 = Fairly true
- 4 = Completely true
- 5 = Don't know / No answer

*Question 9. Whether people feel that they belong strongly to their neighbourhood.*

Data collection questions (U.K.'s Department for Communities and Local Government – Citizenship Survey 2010-2011):<sup>63</sup>

How strongly do you feel you belong to your immediate community/neighbourhood?

Response structure:

- 1 = Very strongly
- 2 = Fairly strongly
- 3 = Not very strongly
- 4 = Not at all strongly

---

<sup>62</sup> See Samman (2007).

<sup>63</sup> In OECD (2011).

5 = Don't know

*Question 10. Level of loneliness felt by respondent.*

Data collection questions (from Russell 1996):

Indicate how often you feel the way described in each of the following statements. Circle one number for each.

1. How often do you feel that you are 'in tune' with the people around you?
2. How often do you feel that no one really knows you well?
3. How often do you feel you can find companionship when you want it?
4. How often do you feel that people are around you but not with you?

Response structure:

1 = Never

2 = Rarely

3 = Sometimes

4 = Often

Note: Questions 1 and 3 must be reversed before scoring (i.e., 1=4, 2=3, 3=2, 4=1).

*Question 11. Level of loneliness felt by respondent.*

Data collection questions (from de Jong Gierveld and Van Tilburg 2010):

Please indicate for each of the statements, the extent to which they apply to your situation, the way you feel now. Please circle the appropriate answer.

1. I experience a general sense of emptiness
2. There are plenty of people I can rely on when I have problems
3. There are many people I can trust completely
4. There are enough people I feel close to
5. I miss having people around
6. I often feel rejected

Answer categories:

1 = yes!

2 = yes

3 = more or less

4 = no

5 = no!

Alternative answer categories:

1 = yes

2 = more or less

3 = no

Note: Scores from items 2, 3 and 4 should be reversed before analysis.

*Question 12. Overall level of trust.*

Data collection questions (from World Values Survey):<sup>64</sup>

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

- a. People can be trusted
- b. You can't be too careful

*Question 13. Level of trust of people from own village/ neighbourhood.*

Data collection questions (from SC-IQ):<sup>65</sup>

In general, do you agree or disagree with the following statements?

- A. Most people in this village/ neighbourhood are willing to help if you need it.
- B. In this village/ neighbourhood, one has to be alert or someone is likely to take advantage of you.

Answer category:

1 = Agree strongly

2 = Agree somewhat

3 = Neither agree or disagree

---

<sup>64</sup> see [http://www.worldvaluessurvey.org/index\\_surveys](http://www.worldvaluessurvey.org/index_surveys).

<sup>65</sup> Grootaert *et al.* (2004).

4 = Disagree somewhat

5 = Disagree strongly

*Question 14. Level of trust.*

Data collection questions (from SC-IQ):<sup>66</sup>

How much do you trust....

1. Local government officials
2. Central government officials
3. Private businesses
4. Legal system

Answer category:

- 1 = To a very great extent
- 2 = To a great extent
- 3 = Neither great nor small extent
- 4 = To a small extent
- 5 = To a very small extent

*Question 15. Level of trust.*

Data collection questions (Stiglitz, Sen and Fitoussi 2009):

If you lost a wallet or a purse that contained two hundred dollars, and it was found by a neighbour, how likely is it to be returned with the money in it?

**Note: This question needs to be adapted to local context.**

Answer category:

- 1 = Very likely
- 2 = Somewhat likely
- 3 = Somewhat unlikely
- 4 = Not at all likely?

---

<sup>66</sup> *idem.*

## **4. Conclusions**

This paper has proposed a conceptual framework and a series of indicators to capture data on social connectedness. In particular, this paper argues for the need to explore data on the external characteristics of social connectedness (the frequency of social contact, the social network support of a person, and intensity of volunteering) as well as its internal characteristics (satisfaction with social relations, sense of relatedness, feeling of belonging to one's own neighbourhood/village/community, loneliness, and trust). These indicators emphasise direct measures of, and stress the self-evaluation of, social connectedness. Building on a wide body of research on aspects of social relations, the proposed indicators follow the guidelines of major initiatives to improve the measurement of human progress. These indicators need to be tested in large surveys alongside traditional socio-economic indicators, and in international contexts, in order to test both their validity and usefulness for poverty analysis.

## Bibliography

- Abbott, S., & Freeth, D. (2008). Social capital and health: Starting to make sense of the role of generalized trust and reciprocity. *Journal of Health Psychology*, **13**, 874–883.
- Acket, S., Borsenberger, M., Dickes, D., & Sarracino, F. (2011). *Measuring and validating social cohesion: A bottom-up approach* (CEPS-INSTEAD Working Paper).
- Adam, F., & Roncevic, B. (2003). Social capital: Recent debates and research trends. *Social Science Information*, **42**(2), 155–183.
- Adler, P. S., & Kwon, S.W. (2002). Social capital: Prospects for a new concept. *Academy of Management Review*, **27**(1), 17–40.
- Antonucci, T. C., Fuhrer, R., & Jackson, J. S. (1990). Social support and reciprocity: A cross-ethnic and cross-national perspective. *Journal of Social and Personal Relationships*, **7**, 519–530.
- Babajanian, B., & Hagen-Zanker, J. (2012). *Social protection and social exclusion: An analytical framework to assess the links* (ODI Background Note). London: Overseas Development Institute (ODI).
- Basu, K. (2013). Group identity, productivity and well-being policy implications for promoting development. *Journal of Human Development and Capabilities: A Multi-Disciplinary Journal for People-Centered Development*, **14**(3), 323–340.
- Baumeister, R. F., & Tice, D.M. (1990). Point-counterpoints: Anxiety and social exclusion. *Journal of Social and Clinical Psychology*, **9**(2), 165–195.
- Bearman, P. S., & Moody, J. (2004). Suicide and friendships among American adolescents. *American Journal of Public Health*, **94**(1), 89–95.
- Berkman, L. F., & Glass, T. (2000). Social integration, social networks, social support, and health. In L. F. B. I. Kawachi (Ed.), *Social epidemiology* (pp. 137–173.) New York: Oxford University Press.
- Bernard, P. (1999). *Social Cohesion: A critique*. Ottawa: Canadian Policy Research Networks (CPRN).
- Biordi, D. L., & Nicholson, N.R. (2013). Social isolation. In I. M. Lubkin and P.D. Larsen (Eds.), *Chronic illness: Impact and intervention* (pp. 85–115). Sudbury, MA: Jones and Bartlett.
- Bourdieu, P. (1986). The forms of capital. In J. Richardson (Ed.), *Handbook of theory and research for the sociology of education*. Westport, CT: Greenwood Press.

- Brewer, M. B. (2005). The psychological impact of social isolation: Discussion and commentary. In K. D. Williams, J.P. Fogas, and W. Hippell (Eds.), *The social outcast: Ostracism, social exclusion, rejection and bullying*. New York and London: Taylor and Francis.
- Brock, K. (1999). *It's not only wealth that matters: It's peace of mind too. A review of participatory work on poverty and illbeing*. Washington, DC: The World Bank.
- Burchardt, T., Le-Grand, J., & Piachaud, D. (2002). Introduction. In J. Hills, J. Le Grand, and D. Piachaud (Eds.), *Understanding social exclusion*. Oxford: Oxford University Press.
- Buunk, B. P., & Prins, K.S. (1998). Loneliness, exchange orientation, and reciprocity in friendships. *Personal Relationships*, **5**, 1–14.
- Cacioppo, J. T., Ernst, J.M., Burleson, M.H., McClintock, M.K., Malarkey, W.B., Hawkley, L.C., Kowalewski, J.B., Paulsen, A., Hobson, J.A., Hugdahl, K., Spiegel, D., & Berntson, G.G. (2000). Lonely traits and concomitant physiological processes: The MacArthur social neuroscience studies. *International Journal of Psychophysiology*, **35**, 143–154.
- Cacioppo, J. T., & Patrick, W. (2008). *Loneliness*. New York: W.W. Norton & Company.
- Cagney, K. A., Glass, T.A., Skarupski, K.A., Barnes, L.L., Schwartz, B.S., & Mendes de Leon, C.F. (2009). Neighborhood-level cohesion and disorder: Measurement and validation in two older adult urban populations. *Journal of Gerontology*, **64B**(3), 415–424.
- Campbell, K., & Barrett, L. (1992). Sources of personal neighbor networks: Social integration, need, or time? *Social Forces* **70**, 1077–1100.
- Cassidy, J., & Asher, S. (1992). Loneliness and peer relations in young children. *Child Development*, **63**(2), 350–365.
- Castleman, T. (2013). *Human recognition and economic development: An introduction and theoretical model* (OPHI Working Paper No. 63). Oxford: Oxford Poverty and Human Development Initiative, University of Oxford.
- Cattan, M., White, M., Bond, J., & Learmouth, A. (2005). Preventing social isolation and loneliness among older people: A systematic review of health promotion interventions. *Ageing & Society*, **25**, 41–67.
- Cattell, V. (2001). Poor people, poor places, and poor health: The mediating role of social networks and social capital. *Social Science and Medicine*, **52**, 1501–1516.

Chan, J., To, H., & Chan, E. (2006). Reconsidering social cohesion: Developing a definition and analytical framework for empirical research. *Social Indicators Research*, **75**, 273–302.

Christakis, N., & Fowler, J. (2009). *Connected: The surprising power of our social networks and how they shape our lives – How your friends' friends' friends affect everything you feel, think, and do*. New York: Little, Brown and Company.

Cole, S. W., Hawkley, L. C., Arevalo, J. M., Sung, C. Y., Rose, R. M., & Cacioppo, J. T. (2007). Social regulation of gene expression in human leukocytes. *Genome Biology*, **8**(9), R.189.

Coleman, J. S. (1988). Social capital in the creation of human capital. *American Journal of Sociology*, **94** (Supplement: Organizations and Institutions: Sociological and Economic Approaches to the Analysis of Social Structure), 95–120.

Cotterell, G., & Crothers, C. (2011). Social indicators and social reporting in New Zealand, and the potential contribution of the Family Whanau and Wellbeing Project. *Social Policy Journal of New Zealand* (37).

Council of Europe (2008). Well-being for all: Concepts and tools for social cohesion. *Trends in Social Cohesion No. 20*. Belgium: Council of Europe Publishing.

Council of Europe. (2005). *Concerted development of social cohesion indicators: Methodological guide*. Belgium: Council of Europe Publishing.

Cummins, R. A. (1996). The domains of life satisfaction: An attempt to order chaos. *Social Indicators Research*, **38**, 303–328.

de Haan, A. (2001). Social exclusion: Enriching the understanding of deprivation. *World Development Report Forum on Inclusion, Justice and Poverty Reduction*.

de Jong Gierveld, J., & Van Tilburg, T. (2006). A 6-item scale for overall, emotional, and social loneliness: Confirmatory tests on survey data. *Research on Aging*, **28**(5), 582–598.

de Jong Gierveld, J., van Tilburg, T., & Dykstra, P.A. (2006). Loneliness and social isolation. In A. Vangelisti & D. Perlman (Eds.), *Cambridge Handbook of Personal Relationships* (pp. 485–500). Cambridge: Cambridge University Press.

de Jong Gierveld, J., & Van Tilburg, T. (2010). The De Jong Gierveld Short Scales for Emotional and Social Loneliness: Tested on data from seven countries in the UN Generations and Gender Surveys.

*European Journal of Ageing*, 7(2), 121–130.

Deakin, N., Davis, A., & Thomas, N. (1995). *Public welfare services and social exclusion: The development of consumer oriented initiatives in the European Union*. Dublin: European Foundation for the Improvement of Living and Working Conditions

Deci, E. L., La Guardia, J.G., Moller, A.C., Scheiner, M.J., & Ryan, R.M. (2006). On the benefits of giving as well as receiving autonomy support: Mutuality in close friendships. *Personality and Social Psychology Bulletin*, 33(2), 313–327.

Delisle, M. A. (1988). What does solitude mean to the aged? *Canadian Journal on Aging / La Revue canadienne du vieillissement*, 7(4), 358–371.

Dohmen, T., Falk, A., Huffman, D., & Sunde, U. (2006). Representative trust and reciprocity: Prevalence and determinants. Germany: Institute for the Study of Labor (IZA).

du Toit, A., Skuse, A., & Cousins, T. (2007). The political economy of social capital: Chronic poverty, remoteness and gender in the rural Eastern Cape. *Social Identities: Journal for the Study of Race, Nation and Culture*, 13(4), 521–540.

Durlauf, S. N., & Fafchamps, M. (2004). *Social capital*. Cambridge, MA: National Bureau of Economic Research.

Easterly, W., Ritzen, J., & Woolcock, M. (2006). Social cohesion, institutions and growth. *Economic and Politics*, 18(2), 103–120.

Eisenberger, N. I., Lieberman, M., & Williams, K. D. (2003). Does rejection hurt? An fMRI study of social exclusion. *Science*, 302, 290–292.

Ernst, J. M., & Cacioppo, J.T. (1998). Lonely hearts: Psychological perspectives on loneliness. *Applied & Preventive Psychology*, 8, 1–22.

European Foundation for the Improvement of Living and Working Conditions. (1995). *Public welfare services and social exclusion: The development of consumer oriented initiatives in the European Union*. Dublin: European Foundation for the Improvement of Living and Working Conditions.

Fafchamps, M., & Shilpi, F. (2008). Isolation and subjective welfare: Evidence from South Asia. *Policy Research*. Washington DC: The World Bank.

- Figueiredo, J. B., & de Haan, A. (1998). Central issues in the debate on social exclusion. *Social Exclusion: An ILO Perspective*. Geneva: International Institute for Labour Studies.
- Findlay, R., & Cartwright, C. (2002). Social isolation and older people: A literature review. Brisbane: Australasian Centre on Ageing, University of Queensland.
- Fine, M., & Spencer, R. (2009). Social isolation: Development of an assessment tool for HACC services. Centre for Research on Social Inclusion, New South Wales Department of Disability, Ageing and Home Care.
- Fischer, C. (1982). *To dwell among friends: Personal networks in town and city*. Chicago: University of Chicago Press.
- Foxton, F., & Jones, R. (2011). *Social capital indicators review*. London: Office for National Statistics (ONS).
- Friedkin, N. E. (2004). Social cohesion. *Annual Review of Sociology*, **30**(1), 409–425.
- Fromm, E. (1942/2001). *The fear of freedom*. London and New York: Routledge.
- Fukuyama, F. (1995). *Trust: The social virtues and the creation of prosperity*. New York: Free Press Paperbacks.
- Glaeser, E. L., Laibson, D.I., Scheinkman, J.A., & Soutter, C.L. (2000). Measuring trust. *Quarterly Journal of Economics*, **115**(3), 811–846
- Gonzalez de la Rocha, M. (2007). The construction of the myth of survival. *Development and Change* **38**(1), 45–66.
- Gordon, D., Levitas, R., Pantazis, C., Patsios, D., Payne, S., Townsend, P., Adelman, L., Ashworth, K., Bradshaw, J., & Williams, J. (2000). Poverty and social exclusion in Britain. York: Joseph Rowntree Foundation.
- Gordon, D., Mack, J., Lansley, S., Main, G., Nandy, S., Patsios, D., Pomati, M., and the PSE team from the University of Bristol, Heriot-Watt University, National Centre for Social Research, Northern Ireland Statistics & Research Agency, The Open University, Queen's University Belfast, University of Glasgow and University of York. (2013). *The impoverishment of the UK: PSE UK first results. Living standards*. Bristol: The Poverty and Social Exclusion in the UK project.
- Gore, C. (1995). Introduction: Markets, citizenship and social exclusion. In G. Rodgers and J. Figueiredo (Eds.), *Social exclusion: Rhetoric, reality, responses*. Geneva: United Nations Development Programme and

International Institute of Labour Studies.

Gore, C., & Figueiredo, J., (Eds.). (1997). *Social exclusion and anti-poverty policy*. Geneva: United Nations Development Programme and International Institute of Labour Studies.

Granovetter, M. S. (1973). The strength of weak ties. *The American Journal of Sociology*, **78**(6), 1360–1380.

Granovetter, M. S. (1982). The strength of weak ties: A network theory revisited. In P.V. Marsden and N. Lin (Eds.), *Social structure and network analysis* (201–233). Thousand Oaks, CA: Sage.

Grootaert, C. (1998). Social capital: The missing link? *Social Capital Initiative*. Washington, DC: The World Bank.

Grootaert, C., Narayan, D., Nyhan Jones, V., & Woolcock, M. (2004). *Measuring social capital: An integrated questionnaire*. Washington, DC: The World Bank.

Gundelach, B., & Traunmuller, R. (2013). Beyond generalised trust: Norms of reciprocity as an alternative form of social capital in an assimilationist integration regime. *Political Studies*. doi: 10.1111/1467-9248.12064.

Gustafsson, P. E., Janlert, U., Theorell, T., Westerlund, H., & Hammarström, A. (2012). Do peer relations in adolescence influence health in adulthood? Peer problems in the school setting and the metabolic syndrome in middle-age. *PLoS ONE*, **7**(6): e39385.

Halpern, D. (2005). *Social capital*. Cambridge: Polity Press.

Harper, R., & Kelly, M. (2003). *Measuring social capital in the United Kingdom*. London: Office for National Statistics.

Hartling, L. M., & Luchetta, T. (1999). Humiliation: Assessing the impact of derision, degradation, and debasement. *The Journal Primary Prevention*, **19**(4), 259–278.

Hawkley, L. C., Browne, M.W., & Cacioppo, J.T. (2005). How can I connect with thee? Let me count the ways. *Psychological Science*, **16**(10), 798–804.

Hawkley, L. C., & Cacioppo, J.T. (2009). Loneliness. In H.R.S. Sprecher (Ed.), *Encyclopedia of human relationships*. Thousand Oaks, CA: Sage, 985–990.

Hawkley, L. C., & Cacioppo, J.T. (2010). Loneliness matters: A theoretical and empirical review of consequences and mechanisms. *Ann. Behave. Med.*, **40**, 218–227.

- Hawthorne, G. (2006). Measuring social isolation in older adults: Development and initial validation of the friendship scale. *Social Indicators Research*, **77**, 521–548.
- Healy, T. (2002). The measurement of social capital at the international level. *International conference on the measurement of social capital*. London: UK Office for National Statistics and the OECD.
- Helliwell, J. F., & Putnam, R. D. (2004). The social context of well-being. *Phil. Trans. R. Soc Lond. B Bio Sci*, **359**(1449), 1435–1446.
- Hooghe, M. (2007). Social capital and diversity: Generalized trust, social cohesion and regimes of diversity. *Canadian Journal of Political Science/Revue Canadienne de Science Politique*, **40**(3), 709–732.
- Hortulanus, R., Machielse, A., & Meeuwesen, L. (2006). *Social isolation in modern society*. London and New York: Routledge.
- House, J. S., Landis, K. R., & Umberson, D. (1988). Social relationships and health. *Science*, **241**, 540–545.
- Hyppä, M. T. (2010). *Healthy ties: Social capital, population health and Survival*. Springer.
- Jenson, J. (1998). *Mapping social cohesion: The state of Canadian research*. Ottawa: Canadian Policy Research Networks (CPRN).
- Jenson, J. (2010). *Defining and measuring social cohesion (Social Policies in Small States Series No. 1)*. London: Commonwealth Secretariat and United Nations Research Institute for Social Development.
- Jones, V. N., & Woolcock, M. (2007). *Using mixed methods to assess social capital in low income countries: A practical guide*. Manchester: Brooks World Poverty Institute.
- Jordan, B. (1996). *A theory of poverty and social exclusion*. Cambridge: Polity Press and Blackwell Publishers Ltd.
- Kahneman, D., & Krueger, A. B. (2006). Developments in the measurement of subjective well-being. *The Journal of Economic Perspectives*, **20**, 3–24.
- Kawachi, I. K., Lochner, K., & Prothrow-Stith, D. (1997). Social capital, income inequality, and mortality. *American Journal of Public Health*, **78**(9), 1491–1498.
- Keefe, J., Andrew, A., Fancey P., & Hallet, M. (2006). *A profile of social isolation in Canada*. Report submitted to the F/P/T Working Group on Social Isolation. Province of British Columbia and Mount Saint Vincent University.

- Kim, E. S., Park, N., & Peterson, C. (2013). Perceived neighborhood social cohesion and stroke. *Social Science and Medicine*, **97**, 49–55.
- Klinenberg, E. (2001). Dying alone: The social production of urban isolation. *Ethnography*, **2**, 501–531.
- Krueger, A. B., Kahneman, D., Schkade, D., Schwarz, N., & Stone, A. (2009). National time accounting: The currency of life. In A.B. Krueger (Ed.), *Measuring the subjective well-being of nations: National accounts of time use and well-being*. Chicago: University of Chicago Press.
- Leary, M. R. (1990). Responses to social exclusion: Social anxiety, jealousy, loneliness, depression, and low self-esteem. *Journal of Social and Clinical Psychology*, **9**(2), 221–229.
- Leavy, J., & Howard, J. (2013). What matters most? Evidence from 84 participatory studies with those living with extreme poverty and marginalisation. London: Institute of Development Studies (IDS).
- Lelkes, O. (2012). Happier and less isolated: Internet use in old age. Munich Personal RePEc Archive (MPRA).
- Lipton, M. (1998). Selected notes on the concept of social exclusion. In *Social Exclusion: An ILO Perspective*. J.B. Figueiredo and A. de Haan (Eds.) Geneva: International Institute for Labour Studies.
- Lochner, K., Kawachi, I., & Kennedy, B.P. (1999). Social capital: A guide to its measurement. *Health and Place*, **5**, 259–270.
- Lochner, K. A., Kawachi, I., Brennan, R.T., & Buka, S.L. (2003). Social capital and neighborhood mortality rates in Chicago. *Social Science and Medicine*, **56**, 1797–1805.
- MacDonald, G., & Leary, M.R. (2005). Why does social exclusion hurt? The relationship between social and physical pain. *Psychological Bulletin*, **131**(2), 202–223.
- Maslow, A. H. (1943). A theory of human motivation. *Psychological Review*, **50**, 370–396.
- Mathieson, J., Popay, J., Enoch, E., Escorel, S., Hernandez, M., Johnston, H., & Rispel, L. (2008). Social exclusion: Meaning, measurement and experience and links to health inequalities: A review of literature. *WHO Social Exclusion Knowledge Network*. World Health Organization.
- Maximiano, S. (2012). *Measuring reciprocity: Do survey and experimental data correlate?* (Krannert School of Management Working Paper). West Lafayette, IN: Krannert School of Management, Purdue University.
- Maxwell, J. (1996). Social dimensions of economic growth. *The Eric John Hanson Memorial Lecture Series*.

Department of Economics, University of Alberta.

McGee, R. (1998). *Looking at poverty from different points of view: A Colombian case study* (PhD. Thesis). University of Manchester.

MIND (2004). *Not alone? Isolation and mental distress*. London: MIND.

Minnesota Department of Health (2010). *Social connectedness: Evaluating the healthy people 2020 framework*. Minnesota Department of Health Community and Family Health Division, Office of Public Health Practice.

Moore, S., Bockenholt, U., Daniel, M., Frohlich, K., Kestens, Y., & Richard, L. (2011). Social capital and core network ties: A validation study of individual-level social capital measures and their association with extra- and intra-neighborhood ties, and self-rated health. *Health and Place*, **17**(2), 536–544.

Narayan, D., with Patel, R., Schafft, K., Rademacher, A., & Koch-Schulte, S. (2000a). *Voices of the poor: Can anyone hear us? Voices from 47 countries*. Washington, DC: The World Bank.

Narayan, D., Chambers, R., Shah, M. K., & Petesch, P. (2000b). *Voices of the poor: Crying out for change*. New York: Oxford University Press for the World Bank.

Narayan, D., & Petesch, P. (2002). *Voices of the poor: From many lands*. New York: Oxford University Press for The World Bank.

New Zealand Ministry of Social Development. (2010). *The social report 2010*. New Zealand: The Ministry of Social Development.

Nussbaum, M. C. (2000). *Women and human development: The capabilities approach*. Cambridge: Cambridge University Press.

O'Brien, D., Wilkes, J., de Haan, A., & Maxwell, S. (1997). *Poverty and social exclusion in North and South* (IDS Working Paper 55). Brighton: IDS.

OECD (2001). *The well-being of nations: The role of human and social capital*. Paris: Centre for Educational Research and Innovation, OECD.

OECD (2011). *How's life? Measuring well-being*. Paris: OECD.

Office for National Statistics. (2011). *Measuring national well-being, measuring what matters: National statistician's reflections on the national debate on measuring national well-being*. London: Office for National Statistics (ONS).

- Onyx, J., & Bullen, P. (2000). Measuring social capital in five communities. *The Journal of Applied Behavioral Science*, **36**, 23–42.
- Perissinotto, C. M., Stijacic Cenzer, I., & Covinsky, K.E. (2012). Loneliness in older persons: A predictor of functional decline and death. *Arch Intern Med*, **172**(14), 1078–1084.
- Perlman, D., & Peplau, L.A. (1981). Toward a social psychology of loneliness. In R. Gilmour & S. Duck (Eds.), *Personal relationships: 3. Personal relationships in disorder*. London, Academic Press.
- Perlman, D., & Peplau, L.A. (1982). Theoretical approaches to loneliness. In L.A. Peplau & D. Perlman (Eds.), *Loneliness: A sourcebook of current theory, research and therapy* (81–104). New York: Wiley-Interscience Publication.
- Pinquart, M., & Sörensen, S. (2001). Influences on loneliness in older adults: A meta-analysis. *Basic and Applied Social Psychology*, **23**, 245–266.
- Pollack, C. E., & von dem Knesebeck, O. (2004). Social capital and health among the aged: Comparisons between the United States and Germany. *Health and Place*, **10**, 383–391.
- Putnam, R. (2000). *Bowling alone: The collapse and revival of American community*. New York: Simon & Schuster.
- Putnam, R. D. (1995). Bowling alone: America's declining social capital. *Journal of Democracy* **6**(1).
- Putnam, R. D. (2001). Social capital: Measurement and consequences. *Isuma: Canadian Journal of Policy Research*, **2**, 41–51.
- Quane, J. M., & Wilson, W.J. (2012). Critical commentary. Making the connection between the socialisation and the social isolation of the inner-city poor. *Urban Studies*, 1–11.
- Robinson, D., & Williams, T. (2001). Social capital and voluntary activity: giving and sharing in Maori and non-Maori society. *Social Policy Journal of New Zealand*, **17**, 52–71.
- Rodgers, G. (1995). What is special about social exclusion approach? In G. Rodgers and J. Figueiredo (Eds.), *Social exclusion: Rhetoric, reality, responses*. Geneva: International Institute for Labour Studies and United Nations Development Programme.
- Rook, K. S. (1988). Toward a more differentiated view of loneliness. In S. W. Duck (Ed.), *Handbook of personal relationships: Theory, research, interventions* (pp. 571–589). Oxford: John Wiley & Sons.

- Rotenberg, K. J., & MacKie, J. (1999). Stigmatization of social and intimacy loneliness. *Psychological Reports*, **84**, 147–148.
- Russell, D. W. (1982). The measurement of loneliness. In L. A. Peplau, and D. Perlman (Eds.), *Loneliness: A sourcebook of current theory, research and therapy* (pp. 81–104). New York: Wiley-Interscience.
- Russell, D. W. (1996). UCLA loneliness scale (version 3): Reliability, validity, and factor structure. *Journal of Personality Assessment*, **66**(1), 20–40.
- Ryan, R. M., & Deci, E.L. (2000). Self-determination theory and the facilitation of intrinsic motivation, social development, and well-being. *American Psychologist*, **55**, 68–78.
- Ryan, R. M., & Deci, E.L. (2001). On happiness and human potentials: A review of research on hedonic and eudaimonic well-being. *Annual Review of Psychology*, **52**, 141–166.
- Samman, E. (2007). Psychological and subjective wellbeing: A proposal for internationally comparable indicators. *Oxford Development Studies* **35**(4), 459–486.
- Samuel, K. (2014). What is Isolation? Making the Invisible Visible in Relation to Poverty. Oxford Poverty and Human Development Initiative (OPHI). <http://www.ophi.org.uk/research/missing-dimensions/social-connectedness/social-isolation/>
- Savikko, N., Routasalo, P., Tilvis, R.S., Strandberg, T.E., & Pitkälä, K.H. (2005). Predictors and subjective causes of loneliness in an aged population. *Arch Gerontol Geriatr*, **41**(3), 223–233.
- Segrin, C. (1998). Interpersonal communication problems associated with depression and loneliness. In P. A. Anderson and L.A. Guerrero (Eds.), *The handbook of communication and emotion* (pp. 215–242). New York: Academic Press.
- Self, A., Thomas, J., & Randall, C. (2012). *Measuring national well-being-our relationships*. London: Office for National Statistics UK.
- Sen, A. (2000). Social exclusion: Concept, application, and scrutiny. *Social Development Papers*. Manila: Office of Environmental and Social Development, Asian Development Bank.
- Silver, H. (1995). Reconceptualizing social disadvantage: Three paradigms of social exclusion. In G. Rodgers and J. Figueiredo (Eds.), *Social Exclusion: Rhetoric, reality, responses*. Geneva: International Institute for Labour Studies and United Nations Development Programme.

- Silver, H. (2007). *The process of social exclusion: the dynamics of an evolving concept*. Rhode Island, Chronic Poverty Research Centre, Brown University.
- Stafford, M., Bartley, M., Sacker, A., & Marmot, M. (2003). Measuring the social environment: Social cohesion and material deprivation in English and Scottish neighbourhoods. *Environment and Planning*, **35**, 1459–1475.
- Stewart, M. J., Makwarimba, E., Reutter, L.I., Veenstra, G., Raphael, D., & Love, R. (2009). Poverty, sense of belonging and experiences of social isolation. *Journal of Poverty*, **13**, 173–195.
- Stiglitz, J. E., Sen, A., & Fitoussi, J.P. (2009). *Report by the Commission on the Measurement of Economic Performance and Social Progress*. Paris.
- Stone, W. (2001). *Measuring social capital: Towards a theoretically informed measurement framework for researching social capital in family and community life Melbourne* (Research Paper No. 24). Melbourne: Australian Institute of Family Studies.
- Stranahan, A. M., Khalil, D., & Gould, E. (2006). Social isolation delays the positive effects of running on adult neurogenesis. *Nat Neurosci.*, **9**(4), 526–533.
- Suedfeld, P. (1974). Social isolation: A case for interdisciplinary research. *The Canadian Psychologist*, **15**(1), 1–15.
- Tangney, J. P., & Dearing, R.L. (2002). *Shame and guilt*. New York: Guilford Press.
- Thomas, B. K., Muradian, R., de Groot, G., & de Ruijter, A. (2010). Resilient and resourceful? A case study on how the poor cope in Kerala, India. *Journal of Asian and African Studies*, **45**(1), 29–45.
- Tigges, L. M., Browne, I., & Green, G.P. (1998). Social isolation of the urban poor: race, class, and neighborhood effects on social resources. *The Sociological Quarterly*, **39**(1), 53–77.
- Trout, D. L. (1980). The role of social isolation in suicide. *Suicide and Life-Threatening Behavior*, **10**(1), 10–23.
- Turkle, S. (2011). *Alone together: Why we expect more from technology and less from each other*. New York: Basic Books.
- Van Tilburg, T., Van Sonderen, E., & Ormel, J. (1991). The measurement of reciprocity in ego-centered networks of personal relationships: A comparison of various indices. *Social Psychology Quarterly*, **54**(1), 54–

66.

Venkatesh, S. A. (2003). Whither the 'socially isolated' city? *Ethnic and Racial Studies*, **26**(6), 1058–1072.

Victor, C., Scambler, S., Bond, J., & Bowling, A. (2000). Being alone in later life: Loneliness, social isolation and living alone. *Reviews in Clinical Gerontology*, **10**(4), 407.

Warren, B. J. (1993). Explaining social isolation through concept analysis. *Archives of Psychiatric Nursing*, **VII**, 270–276.

Weiss, R. S. (1973). *Loneliness: The experience of emotional and social isolation*. Cambridge, MA: MIT Press.

Westerlund, H., Gustafsson, P. E., Theorell, T., Janlert, U., & Hammarström, A. (2012). Social adversity in adolescence increases the physiological vulnerability to job strain in adulthood: A prospective population-based study. *PLoS ONE*, **7**(4), e35967.

Wilson, R. S., Krueger, K.R. Arnold, S.E., Schneider, J.A., Kelly, J.F. Barnes, L.L., Tang, Y., & Bennett, D.A. (2007). Loneliness and risk of Alzheimer disease. *Arch Gen Psychiatry*, **64**, 234–240.

Wilson, W. J. (1987). *The truly disadvantaged: The inner city, the underclass, and public policy*. Chicago and London: The University of Chicago Press.

Woolcock, M. (1998). Social capital and economic development: Toward a theoretical synthesis and policy framework. *Theory and Society*, **27**(2), 151–208.

Woolcock, M. (2001). The place of social capital in understanding social and economic outcomes. *Canadian Journal of Policy Research*, **2**(1), 11–17.

World Health Organization. (1993). *WHOQOL study protocol*. Geneva.

Young, J. E. (1982). Loneliness, depression and cognitive therapy: Theory and application. In L. A. Peplau and D. Perlman (Eds.), *Loneliness: A sourcebook of current theory, research and therapy*. New York: Wiley-Interscience Publication.

Zavaleta, D. (2007). The ability to go about without shame: A proposal for internationally comparable indicators of shame and humiliation. *Oxford Development Studies*, **35**(4), 405–430.

Ziersch, A. M., Baum, F. E., MacDougall, C., & Putland, C. (2005). Neighbourhood life and social capital: The implications for health. *Social Science and Medicine*, **60**, 71–86.

**Appendix 1: The World Bank’s integrated questionnaire for the measurement of social capital (SC-IQ) – most essential questionnaire items (Grootaert *et al.* 2004).**

Groups and Networks

1. I would like to start by asking you about the groups or organizations, networks, associations to which you or any member of your household belong. These could be formally organized groups or just groups of people who get together regularly to do an activity or talk about things. Of how many such groups are you or any one in your household a member?

--

2. Of all these groups to which you or members of your household belong, which one is the most important to your household?

\_\_\_\_\_ [Name of group]

3. Thinking about the members of this group, are most of them of the same....

	1	Yes
	2	No
A. Religion		
B. Gender		
C. Ethnic or linguistic background/ race/caste/tribe		

4. Do members mostly have the same...

	1	Yes
	2	No
A. Occupation		
B. Educational background or level		

5. Does this group work with or interact with groups outside the village/neighborhood?

1. No

2. Yes, occasionally

--

3. Yes, frequently

6. About how many close friends do you have these days? These are people you feel at ease with, can talk to about private matters, or call on for help.

7. If you suddenly needed to borrow a small amount of money [RURAL: enough to pay for expenses for your household for one week; URBAN: equal to about one week's wages], are there people beyond your immediate household and close relatives to whom you could turn and who would be willing and able to provide this money?

1. Definitely

2. Probably

3. Unsure

4. Probably not

5. Definitely not

Trust and Solidarity

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

1. People can be trusted

2. You can't be too careful

9. In general, do you agree or disagree with the following statements?

	1	Agree strongly
	2	Agree somewhat
	3	Neither agree or disagree
	4	Disagree somewhat
	5	Disagree strongly
A.	Most people in this village/neighborhood are willing to help if you need it.	
B.	In this village/neighborhood, one has to be alert or someone is likely to take advantage of you.	

10. How much do you trust....

	1	To a very great extent
	2	To a great extent
	3	Neither great nor small extent
	4	To a small extent
	5	To a very small extent
A.	Local government officials	
B.	Central government officials	

11. If a community project does not directly benefit you but has benefits for many others in the village/neighborhood, would you contribute time or money to the project?

A. Time  B. Money

- 1 Will not contribute time 1 Will not contribute money
- 2 Will contribute time 2 Will contribute money

Collective Action and Cooperation

12. In the past 12 months did you or any one in your household participate in any communal activities, in which people came together to do some work for the benefit of the community?

- 1. Yes
- 2. No (skip to question 14)

13. How many times in the past 12 months?

14. If there was a water supply problem in this community, how likely is it that people will cooperate to try to solve the problem?

- 1. Very likely
- 2. Somewhat likely
- 3. Neither likely or unlikely
- 4. Somewhat unlikely

- 5. Very unlikely

Information and Communication

- 15. In the past month, how many times have you made or received a phone call?

--

- 16. What are your three main sources of information about what the government is doing (such as agricultural extension, workfare, family planning, etc.)?

- 1. Relatives, friends and neighbors
- 2. Community bulletin board
- 3. Local market
- 4. Community or local newspaper
- 5. National newspaper
- 6. Radio
- 7. Television
- 8. Groups or associations
- 9. Business or work associates
- 10. Political associates
- 11. Community leaders
- 12. An agent of the government

- 13. NGOs

--	--	--

- 14. Internet

Social Cohesion and Inclusion

- 17. There are often differences in characteristics between people living in the same village/neighborhood. For example, differences in wealth, income, social status, ethnic or linguistic background/race/caste/tribe. There can also be differences in religious or political beliefs, or there can be differences due to age or sex. To what extent do any such differences characterize your village/neighborhood? Use a five point scale where 1 means to a very great extent and 5 means to a very small extent.

- 1. To a very great extent

- 2. To a great extent
- 3. Neither great nor small extent
- 4. To a small extent
- 5. To a very small extent

18. Do any of these differences cause problems?

- 1. Yes
- 2. No → go to question 21.

19. Which two differences most often cause problems?

- 1. Differences in education
- 2. Differences in landholding
- 3. Differences in wealth/material possessions
- 4. Differences in social status
- 5. Differences between men and women
- 6. Differences between younger and older generations
- 7. Differences between long-term and recent residents
- 8. Differences in political party affiliations
- 9. Differences in religious beliefs
- 10. Differences in ethnic or linguistic background/  
race/caste/tribe
- 11. Other differences

20. Have these problems ever led to violence?

- 1. Yes
- 2. No

21. How many times in the past month have you got together with people to have food or drinks, either in their home or in a public place?

22. [IF NOT ZERO] Were any of these people....

	1	Yes
	2	No
A. Of different ethnic or linguistic background/ race/caste/tribe?		
B. Of different economic status?		
C. Of different social status?		

D. Of different religious groups?	
-----------------------------------	--

23.

24. In general, how safe from crime and violence do you feel when you are alone at home?

- 1. Very safe
- 2. Moderately safe
- 3. Neither safe nor unsafe
- 4. Moderately unsafe
- 5. Very unsafe

Empowerment and Political Action

25. In general, how happy do you consider yourself to be?

- 1. Very happy
- 2. Moderately happy
- 3. Neither happy nor unhappy
- 4. Moderately unhappy
- 5. Very unhappy

26. Do you feel that you have the power to make important decisions that change the course of your life? Rate yourself on a 1 to 5 scale, were 1 means being totally unable to change your life, and 5 means having full control over your life.

- 1. Totally unable to change life
- 2. Mostly unable to change life
- 3. Neither able nor unable
- 4. Mostly able to change life
- 5. Totally able to change life

27. In the past 12 months, how often have people in this village/neighborhood gotten together to jointly petition government officials or political leaders for something benefiting the community?

- 1. Never
- 2. Once
- 3. A few times ( $\leq 5$ )
- 4. Many times ( $> 5$ )

28. Lots of people find it difficult to get out and vote. Did you vote on the last state/national/ presidential election?

- 1. Yes
- 2. No

## Appendix 2: Questions on social capital and civic engagement in the US current population survey from the report by the Commission on the Measurement of Economic Performance and Social Progress

<ul style="list-style-type: none"> <li>• Not counting family members, about how many close friends do you currently have, if any? These are people you feel at ease with, can talk to about private matters, or call on for help.<sup>67</sup></li> </ul>
<ul style="list-style-type: none"> <li>• I am going to read a list of things some people have done to express their views. Please tell me whether or not you have done any of the following in the last 12 months, that is between xxxx and now: <ul style="list-style-type: none"> <li>– Contacted or visited a public official, at any level of government, –to express your opinion?</li> <li>– Served as an officer or served on a committee of any local club or organization?</li> <li>– Taken part in a march, rally, protest or demonstration?</li> <li>– Bought or boycotted a certain product or service because of the social or political values of the company that provides it?</li> <li>– Showed support for a particular political candidate or party by distributing campaign materials, fundraising, making a donation or in some other way?</li> <li>– Attended a meeting where political issues are discussed?</li> </ul> </li> </ul>
<ul style="list-style-type: none"> <li>• The next questions are about the groups or organizations in which people sometimes participate. I will read a list of types of groups and organizations. Please tell me whether or not you participated in any of these groups during the last 12 months: <ul style="list-style-type: none"> <li>– A school group, neighborhood, or community association such as the PTA or neighborhood watch groups?</li> <li>– A service or civic organization such as the American Legion or Lions Club?</li> <li>– A sports or recreation organization such as a soccer club or tennis club?</li> <li>– A church, synagogue, mosque or other religious institutions or organizations, not counting your attendance at religious services.</li> <li>– Any other type of organization that I have not mentioned?</li> </ul> </li> </ul>
<ul style="list-style-type: none"> <li>• In the last 12 months have you attended a meeting of any group or organization?</li> </ul>
<ul style="list-style-type: none"> <li>• In the last 12 months have you attended any public meetings in which there was discussion of community affairs?</li> </ul>
<ul style="list-style-type: none"> <li>• In the last 12 months have you worked with other people from your neighborhood to fix a problem or improve a condition in your community or elsewhere?</li> </ul>
<ul style="list-style-type: none"> <li>• During a typical month in the past year, when communicating with family or friends, how often were politics discussed – basically every day, a few times a week, a few times a month, once a</li> </ul>

<sup>67</sup> Advisory committee proposed adding the following probes of bridging social capital: ‘Of these close friends you just described, how many of them, if any: a. Are White; b. Are Latino or Hispanic; c. Are Asian; d. Are African American or Black; e. Have a college degree; f. Didn’t complete high school?’.

month, or not at all?
<ul style="list-style-type: none"> <li>• During a typical month in the past year, how often did you and your neighbors do favors for each other? By favors we mean such things as watching each other's children, helping with shopping, house sitting, lending garden or house tools, and other small acts of kindness – basically every day, a few times a week, a few times a month, once a month, or not at all?</li> </ul>
<ul style="list-style-type: none"> <li>• During a typical month in the past year, how often did you talk with any of your neighbors – basically every day, a few times a week, a few times a month, once a month, or not at all?</li> </ul>
<ul style="list-style-type: none"> <li>• During a typical month in the past year, how often, if at all, did you communicate with friends or family by email or on the Internet – basically every day, a few times a week, a few times a month, once a month, or not at all?</li> </ul>
<ul style="list-style-type: none"> <li>• During a typical month in the past year, how often did you eat dinner with any of the other members of your household – basically every day, a few times a week, a few times a month, once a month, or not at all?</li> </ul>
<ul style="list-style-type: none"> <li>• I am going to read some ways that people get news and information. Please tell me how often you did each of the following during a typical month in the past year: <ul style="list-style-type: none"> <li>– Read a newspaper in print or on the Internet – basically every day, a few times a week, a few times a month, once a month, or not at all?</li> <li>– Read news magazines such as <i>Newsweek</i> or <i>Time</i>, in print or on the Internet – basically every day, a few times a week, a few times a month, once a month, or not at all?</li> <li>– Watch the news on television or get news from television Internet sites – basically every day, a few times a week, a few times a month, once a month, or not at all?</li> <li>– Listen to the news on the radio or get news from radio Internet sites – basically every day, a few times a week, a few times a month, once a month, or not at all?</li> <li>– Obtain news from any other Internet sources that we have not previously asked about such as blogs, chat rooms, or independent news services – basically every day, a few times a week, a few times a month, once a month, or not at all?</li> </ul> </li> </ul>
<ul style="list-style-type: none"> <li>• In any election, some people are not able to vote because they are sick or busy or have some other reason, and others do not want to vote. On November 4, 2008, there were general national elections for political offices such as senators, congressman, and governors. Did you vote in the election held on Tuesday, November 4, 2008?</li> </ul>
<ul style="list-style-type: none"> <li>• Were you registered to vote in the November 4, 2008 election? &lt;Several probes about reasons for non-voting are also included.&gt;</li> </ul>
<ul style="list-style-type: none"> <li>• This month, we are interested in volunteer activities, that is, activities for which <i>people are not</i> paid, except perhaps expenses. We only want you to include volunteer activities that (you/<i>NAME</i>) <i>did through or for an organization</i>, even if (you/he/she) only did them once in a while.</li> </ul>
<ul style="list-style-type: none"> <li>• In the last 12 months have you done any volunteer activities through or for an organization?</li> </ul>
<ul style="list-style-type: none"> <li>• Sometimes people don't think of activities they do infrequently or activities they do for children's schools or youth organizations as volunteer activities. In the last 12 months, have you done any of these types of volunteer activities?</li> </ul>
<ul style="list-style-type: none"> <li>• How many different organizations have you volunteered through or for in the last year, that is, since September 1, 2007? What organization is it/are they? &lt;Follow-up probes are then asked about the type of activity and the amount of time for each organization.&gt;</li> </ul>
<ul style="list-style-type: none"> <li>• Now I'd like to ask a question about donations to charitable and religious organizations.</li> </ul>

Charitable organizations focus on areas such as poverty and disaster relief, health care and medical research, education, arts, and the environment. During the past 12 months, did you donate money, assets, or property with a combined value of more than \$25 to charitable or religious organizations?<sup>68</sup>

• People nowadays have a lot to keep up with and no one can keep up with everything. I have two questions about federal laws. If you don't happen to know the answers, just tell me and we'll move on.

– What individual or group of individuals has the responsibility to make the final decision on whether a law is constitutional or not? Is it the President of the United States, the Supreme Court, or Congress?

– Do you know how much of a majority is required for the U.S. Senate and House to override a presidential veto? Is it 80 percent, 67 percent, 60 percent or 51 percent?

*Additional questions on social connections not included in CPS*

1 We'd like to ask you a question about how you view other people. Generally speaking, would you say that most people can be trusted or that you can't be too careful in dealing with people?

2. If you lost a wallet or a purse that contained two hundred dollars, and it was found by a neighbour, how likely is it to be returned with the money in it? Would you say very likely, somewhat likely, somewhat unlikely or not at all likely?

3. How often do you attend religious services? (If necessary: Several times a week; every week; nearly every week; 2–3 times a month; about once a month; several times a year; about once or twice a year; less than once a year; never.)

4. In any election, some people are not able to vote for various reasons. Thinking about elections for LOCAL government officials since November 2006, have you voted in none of them, some of them, most of them, or all of them?

5. If you were in trouble, do you have relatives or friends you can count on to help you whenever you need them, or not?

6. Generally speaking, would you say that you can trust people you work with a lot, some, only a little, or not at all?

<sup>68</sup> The Advisory committee had proposed, 'Some people contribute money for a wide variety of causes while others don't. During the past 12 months, did you or your household happen to give any money to any charitable or religious cause? (IF YES) a. How much money, if any, did you and your family give to all non-religious charities, organizations, or causes in the past 12 months? (IF NECESSARY: \$0, Less than \$100, \$100 to less than \$500, \$500 to less than \$1000, \$1000 to less than \$5000, \$5000) (IF YES) b. How much money, if any, did you and your family give to all religious causes, including your local religious congregation in the past 12 months? (IF NECESSARY: \$0, Less than \$100, \$100 to less than \$500, \$500 to less than \$1000, \$1000 to less than \$5000, \$5000)'