Measuring Social Networks and Social Resources: An Exploratory ISSP Survey around the World

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Acknowledgments

1 Introduction

This publication – presenting results from an exploratory comparative survey fielded in China, France, Germany, Great Britain, Switzerland, Taiwan, Turkey, the United States of America and Venezuela and carried out in the context of the ISSP[1] – serves several purposes:

- First, it documents the development of the ISSP 2017 module entitled "Social Networks and Social Resources".
- The second perspective is based on the fact that in most countries the pretest sample was large enough and of sufficient quality to be considered a comparative project in itself. In comparison with the final ISSP module the pretest has the advantage of having approximately twice as many items. In other words, the "pretest" turned out to have great analytical potential, opening space to examine and discuss substantive questions. We therefore call it an exploratory survey.
- The third aspect we wish to stress is mostly methodological: in network research, even more in a comparative perspective, there is an intense debate on "generators", the tools that allow to measure networks, to define them and to analyse their utility. In this way, it is also an exploration of different approaches to using the items that will be available in the full ISSP module and comparing different ways to measure network characteristics.

We shall follow these three strands in this work.

1.1 Basic Principles

Surveying social networks and social resources, especially in a comparative perspective, implies building on specific assumptions. The "basic principles" that we shall follow all through this publication are:

- Social resources are based on relationships and situations embedded in social structure.
- In everyday life a large amount of support, either emotional, practical or informational, is provided by family members, friends and acquaintances which could be very important with respect to affective and instrumental outcomes.
- Social support takes different forms depending on the context, starting with the national one. In some countries, or at some points in life, personal resources may prove to be even more important in circumstances in which traditional forms and benefits of the welfare state are being reconfigured.

In other words, considering social networks and the social resources embedded in them in the form proposed here is a way to escape from an individualistic survey

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1   The ISSP or International Social Survey Programme (see www.issp.org) is an international survey initiative including nearly 50 countries. This project and the conditions of the survey are described in more detail in Chapter 3.

perspective and to defend the perspective of "life in context", the context being the network of relations with family or friends but also the society in which the individual is living.

1.2   The Structure of the Report

This text is structured into four parts:

We begin by laying out the foundations of this study by discussing the theoretical basis of surveying social networks in a comparative perspective and by describing our data collection effort.

In a second part we discuss the construction of the measures, which is particularly important in a comparative perspective. We present measures on the individual level, such as loneliness and health, measures capturing interpersonal relationships, for example reciprocity, and measures reflecting the relationship between oneself and society, for instance social participation. Then measures of three types of capital, to follow Bourdieu's terminology, are presented: economic, cultural and social capital. The last of these is examined in more detail using a position-generator as well as a resource-generator approach.

The third part is devoted to a first exploration of the relations between social resources on one hand and attitudes and behaviours on the other. We also link the distribution of economic, cultural and social capital to the national contexts. As will be seen, these analyses further support our conviction that considering social relations and social contexts in surveys opens up interesting analytical perspectives.

Chapter 11 documents the selection of the items proposed for the final ISSP module on Social Networks and Social Resources. Based on the analyses presented throughout this publication, we move from our exploratory survey built on 150 items to a selection of the 60 items best suited to measure the basic concepts of this study in a comparative perspective. Chapter 12 discusses some central principles of comparative survey research, summarizes central findings of this report and gives an outlook on further research questions which can be addressed with the ISSP module being developed here.

Part I

Foundations

Introductory Remarks

In this part, we shall address two main challenges:

- Firstly, research on social networks is a subject that has been growing in importance for nearly fifty years. In particular, in addition to their importance for understanding social behaviour, there has been a lot of discussion in the scientific literature on ways to "generate", i.e. measure, social networks, in particular in different social contexts.

- Secondly, the documentation of the development of an ISSP module. The dataset used for this exploratory survey around the world was designed in the context of one of the best-known international surveys, which has been active for more than thirty years. Furthermore, the ISSP has in the past developed two modules devoted to a similar question, in 1986 and 2001. Such a tradition implies, even more so in a comparative context, a detailed examination of the instruments to choose and the way to test them, starting with the "exploratory survey around the world" to which this publication is devoted.

2 Theoretical Basis for Surveying Networks

When building the framework of this research, a first set of arguments concerns social networks and social capital. Social networks have been studied for many years and from multiple perspectives (see for example Scott & Carrington 2011; Freeman 2004). We mainly focus on the resources that can be accessed through social networks and relations – an aspect that has been conceptualised in terms of social capital, in the sense that Lin (1982) and Bourdieu (1986) have independently described as resources accessible through one's social relations (see Lin, Cook, & Burt 2001; Lin & Erickson 2008).[2] We focus on social capital for four reasons:

- Economic and cultural capital, the most often used concepts in the field of social stratification and inequality, have to be complemented by the idea of "social capital". As the concept of *capital* "represents investment and possession of resources of value in a given society" (Lin & Erikson 2008: 3), it links individual and societal characteristics in addition to measuring social position with three facets: economic, cultural and social capital.

- In a comparative setting, not only are individual resources important but also the role of institutions such as welfare state regulations and organisations such as churches, parties, etc. Both, institutions and organisations frame the construction and use of networks as social resources.

- Though it can be expected that the three forms of capital are important in all ISSP countries, we hypothesise that their relative importance and their empirically found combinations depend on the national setting. There is an active production of research in this field including contributions with a comparative perspective (for example Lin, Fu, & Chen 2013).

"For Flap (1988, 1991, 1994), social capital refers to mobilised social resources. Flap specifies three elements of social capital: (1) the number of persons within one's social network who 'are prepared or obliged to help you when called upon to do so,' (2) the strength of the relationship indicating readiness to help, and (3) the resources of these persons. Social capital, for Flap, is resources provided by alters who have strong relationships with ego. Thus, it is the product of availability of social resources and the propensity by alters to offer such resources for help" (Lin 2001: 21-22). This view opens the door to many discussions in the scientific literature around networks,

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2 The different traditions make the distinction between resources and capital somewhat tricky. Putnam's (2000) concept of social capital differs from the approach taken here (see for example Fischer 2005), in part because it is not conceptualized as a resource defined at the individual level but rather as a characteristic of an aggregate, like the "community" in which the actors are involved. We are also aware that the idea of "social capital" being a "capital" was criticised, among others by Fischer (2005). Though we sympathize with this view we still follow the tradition founded by Bourdieu and Lin and use the term social capital to denote resources accessed through personal relationships. We will also address the question raised by Bourdieu in how far one form of capital can be converted into other forms, e.g. to gain economic capital from social capital. We will return to this idea later.

for example on the advantages and disadvantages of having a closed network or an open one, or having diversity of positions or homophily.

Against this background it might be useful to consider different types or dimensions of social resources. It could well be that, depending on national circumstances, the importance and distribution of different social resources, as well as their relationship with other types of resources, will vary. Furthermore, other characteristics of networks, like their homogeneity versus heterogeneity, can be considered in addition as explanations of access to resources. Following this first theoretical consideration and taking ISSP topics into account, this conceptualisation of networks and social capital can be used as an explanatory variable for at least the following three research questions, related to three social levels:

- At the individual level, does a person feel lonely or well integrated? Is he or she in good health?
- At an interpersonal or meso level, does an individual have the necessary support of others to cope with the demands of everyday life?
- At a social or macro level, how well is a person integrated into forms of civic participation; and does she or he trust institutions?

This range of research questions going from individuals to society is particularly interesting in a comparative framework. It also focusses on the relative importance of institutions such as the welfare state on the one hand and support from networks and social ties on the other. We expect that these relations will vary with the institutional context. An ISSP module on social relations and social resources will provide an ideal basis to test these kinds of hypotheses and we will explore some of these aspects in this publication.

2.1   Surveying Networks in General Social Surveys: Why?

The ISSP has decided to implement a new module on social networks for its 2017 edition. This chapter sketches the general framework which underlies the theoretical and methodological basis of this module. We begin by discussing different approaches to measuring social relations and social capital and then present adequate measurement concepts for the purpose at hand.

There are many reasons for General Social Surveys in general, and particularly for the ISSP, to develop a network module. First, a historical reason: several surveys have developed questionnaires to capture the respondents' social relationships. An important example is the American GSS[3], as well as other national social surveys. Also, two ISSP modules (1986, 2001) have already been devoted to this topic. In the same line, another international survey, SHARE[4], has also developed a network module as an important instrument for complementing measures of social support.

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3   Cf. http://gss.norc.org/, accessed 31 August 2018.

4   SHARE - Survey of Health, Ageing and Retirement in Europe, cf. http://www.share-project.org/, accessed 31 August 2018.

Though we propose replicating some parts of the previous ISSP modules, we suggest improving the module by taking into account recent theoretical and methodological approaches.

Secondly, there is a growing interest in sociology in considering "lives in contexts", i.e. the way we are influenced by the personal relationships and communities we live in (Fischer 1982, 1984). Many theoretical and methodological schools in social sciences have (re-)discovered the importance of "social embeddedness", i.e. the web of social relations and the support and resources individuals can access through them (Bourdieu 1986; Lin 1982), also considering the geographical space in which this web of relations establishes itself (Wellman et al. 2007).[5] From this perspective "social resources" or "social capital" should be considered as supplementing economic and cultural capital. But the most important reason is more global: as Simmel (1922) already pointed out at the beginning of the last century, traditional collectives, such as the kinship group or neighbourhood, have lost their relevance through processes associated with modernisation, leaving the individual with the necessity to choose social relations and deliberately build a social network. More recently, we have also witnessed the rise of economic liberalism accompanied by the reduction of various forms of welfare provision in many countries. These developments underline the importance of having reliable social networks through which one can access resources and not have to rely exclusively on institutions. The crucial questions are, of course, whether these resources can (partly) take over functions previously provided by the welfare state and what happens to people who are isolated or have only very few social relationships. These questions are particularly well suited to be investigated in a comparative perspective.

Our last inspiration for this research comes from the methodological advances in the measurement of social networks that make it feasible to collect various dimensions of social relations and social embeddedness in a cross-national context. Since Fischer et al.'s (1977) development of multiple name generators and Burt's (1984) suggestion for a one-item name generator instrument for the GSS, there have been many methodological advances in the measurement of social relations and social capital. In particular, some studies have shown the sensitivity of these name generator-based measures to interviewer effects (Wolf 2006; Brüderl et al. 2013). In the same line, some tools are complex and not well suited for self-administrated paper and pencil surveys. New instruments addressing these points have been developed and many General Social Surveys have used novel network modules.[6] Social networks and social capital are currently topics of great interest in the social and political sciences. Therefore, dealing with these issues in particular from a methodological perspective is important to us.

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5   This is also true in the so-called "life-course" paradigm which emphasises the concept of "linked lives" in a particular context (Levy et al. 2005; Sapin et al. 2007).

6   MOSAiCH in Switzerland (cf. http://forscenter.ch/en/our-surveys/international-surveys/mosaich-issp-2/, accessed 31 August 2018), PASS in Germany (cf. https://www.iab.de/en/befragungen/iab-haushaltspanel-pass.aspx, accessed 31 August 2018) but also surveys in Canada, Spain, etc.

2.2   Surveying Networks in General Social Surveys: How?

In the literature, there are at least three different approaches to measuring aspects of social relations and social capital from a network perspective. These approaches are the name generator, the position generator and the resource generator approaches which were historically developed in the field of survey research in that order. These three approaches also denote different theoretical perspectives: the name generator allows an examination of actual relationships and their interconnections while the position generator emphasizes the vertical dimension of the society and unequal distribution of resources, while the resource generator is oriented to capture effective support in everyday life.[7] After briefly presenting the core ideas behind these approaches and how they can be instrumental in the context considered here, we argue that a combination of the latter two approaches would be best for a comparative international module.

Name Generator

Historically, name generators were one of the first measures used to gather information on social networks (see for example Bidart & Charbonneau 2011). This type of measure consists of one or more questions asking for specific others; hence, the term "name generator". The name generator is then followed by a number of questions about certain characteristics of the named network members; these questions are also known as name interpreter items. Finally, a third set of questions can ask for the relations among the network members. The advantage of this approach is that it allows for both analysing the structure of the network, its heterogeneity and density, and distinguishing between different social relations, e.g. between strong and weak ties.

A specific name generator-based instrument was developed by Burt (1984) and was implemented for example in the US GSS 1985, 2004 and 2010. It has also been chosen in other countries' surveys.[8] Typically, it begins with a question like "From time to time, most people discuss important matters with other people. Looking back over the last six months – who are the people with whom you discussed matters important to you? Just tell me their first names or initials…" (GSS 2004).[9]

One of the goals of such an approach is to provide information on many characteristics of the networks, including relations between their members. The drawback is the number of questions involved: we can easily fill the 60 items of an ISSP module

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7   For a detailed discussion of the pros and cons of different measurement tools see van der Gaag (2005) and Marsden (2011); more recently a discussion of tools in Slovenia has been published by Hlebec and Kogovšek (2012) and Hlebec, Mrzel and Kogovšek (2011).

8   For example, a reduced version (three names as a maximum) was used in 1991 in Switzerland. A more comparable question design with the GSS, using five possible names, was chosen in MOSAiCH 2005 (https://forsbase.unil.ch/project/study-public-overview/15351/2/, accessed 3 September 2018) and ALLBUS 2010 (doi: 10.4232/1.10760); these surveys are available from FORS' and GESIS' data archives.

9   See https://gssdataexplorer.norc.org/variables/848/vshow, accessed 5 September 2018.

with only one name generator![10] Another argument against this kind of instrument is that it is most likely sensitive to the survey mode and is not particularly suitable for the paper and pencil self-completion mode, which is still relevant for ISSP countries. But even in face-to-face mode, this instrument is demanding for both interviewees and interviewers (Marsden 2003) and typically shows large interviewer effects (Wolf 2006; Paik & Sanchagrin 2013; Herz & Petermann 2017).

Position Generator

Instead of asking about concrete people with whom respondents interact in a specified way, the position generator asks whether respondents have a (specifically defined) relationship with incumbents of certain predefined positions, usually occupations. The position generator technique was used, for example, in the Canadian General Social Survey 2008. The idea is to enumerate a number of occupations and to ask for each whether the respondent knows someone working in them.[11] The measurement hypothesis is that the more diverse the positions are to which you have access through your personal social network the higher your own social position. Lin (2008: 55) has noted about this approach: "It seems adaptable for different societies, populations, or returns, and for incorporating additional dimensions for analysis (e.g., gendered or ethnic social capital). Nevertheless, the position generator methodology has had a very recent history; much work remains to sharpen its adaptation to various societies and its ability to sample representative positions from a stratification system at hand." Data obtained from a position generator allow us to compute the number and range of social positions accessible by respondents (Lin & Dumin 1986).[12]

The idea of a "position generator" has later been extended, considering not only occupations but also other positions in the social structure characterised by the possession of some form of capital, notably social, cultural or economic capital. Furthermore, these could be positive as well as negative characteristics, relative to values of the mainstream society, e.g. knowing a drug addict or prison inmate.[13] This

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10 There are, however, shorter versions available, e.g. the version proposed for a large German panel survey uses five items per alter and limits the number of alters to three, which results in only 16 (1+5 x 3) items (Wolf 2009).

11 The Canadian GSS used these occupations: "social worker", "police officer or fire-fighter", "food or beverage server", "labourer in landscaping or ground maintenance", "manager in sales, marketing or advertising", "computer programmer", "instructor or leader in recreation and sport", "security guard", "engineer", "farmer", "nurse", "janitor or caretaker", "accountant or auditor", "graphic designer or illustrator", "delivery or courier driver", "early childhood educator or assistant", "sewing machine operator", "carpenter", each one for male and female incumbents; see https://www150.statcan.gc.ca/n1/pub/89-631-x/89-631-x2008001-eng.htm, accessed 3 September 2018.

12 For an overview see also van der Gaag http://gaag.home.xs4all.nl/work/PG.html, accessed 13 September 2018).

13 In Germany the following question was used (Wolf 2009): "For the next questions, we are referring to a person with whom you have had contact during the last 3 months. These

is an indirect way to measure potential access to resources and also respondents' positions in the social structure. Though this approach produces interesting data we have decided not to implement it here because of the limited number of questions we could include in the final module.

A challenge of the position generator approach in a cross-national perspective is to identify occupations or other "social positions" that are comparable across countries (Bian & Ikeda 2014). While many researchers are convinced that occupations have similar prestige across countries (as measured for example by Treiman's prestige scale or ISEI),[14] the comparative value of such a measure has been questioned, among others by van der Gaag et al. (2008). We will address this question empirically in Chapter 6.

Resource Generator

A third approach to measuring social networks emphasising social resources was introduced by van der Gaag and Snijders (2005). It is called the resource generator; a short version of this instrument was proposed by Häuberer (2008). As mentioned by van der Gaag and Snijders (2005: 4) the resource generator is designed "… to combine the positive aspects of the position generator (economy, internal validity) and name generator/interpreter (detailed resource information) by more clear [sic] referral to specific resources, and omitting name identification from name generator questions. The resulting instrument, the 'Resource Generator', asks about access to a fixed list of resources, each representing a vivid, concrete sub-collection of social capital, together covering several domains of life. […] Incomparability problems can also occur with this measurement instrument, because the list of specific resource items to be included may vary over populations. The composition of the resource generator should therefore result from systematic, theoretical considerations about which social resources represent the 'general' social capital of individuals."

The idea here is to list a number of resources (persons available to lend some money, to discuss technical matters, to give help in finding a job, etc.). An example is given in the Dutch SSND survey of 1999-2000 (Flap et al. no date).[15] This approach

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persons may but do not have to belong to your household. During the last 3 months have you had private contact with a) a person with a university degree; b) a person often drinking too much alcohol; c) an owner of an enterprise with at least 3 employees; d) a person who has been in jail in the last five years; e) a person who was unemployed; f) a person who is involved in hiring people; g) a person who has an income of more than 3,000 Euros per month; h) a person who goes moonlighting?" Of course, such a proposal could be further adapted for comparative purposes.

14 For a discussion of the unidimensionality of the ranking of occupations see Coxon and Davies (1986) or Joye and Chevillard (2013). For the description of scales see Ganzeboom and Treiman (2003).

15 They use the question: "I have here a list with a number of skills and resources. Does anyone in your family have these skills or resources? And how about your friends? Are there any acquaintances mastering these skills? By 'acquaintance' I don't mean the sales persons you meet when going shopping, but somebody that you would have a small con-

might also allow us to include social support items of the kind that were included in the previous ISSP modules. The advantage of this approach is that the "resources" considered should show a satisfactory degree of comparability.

2.3   Social Resources and Types of Social Capital

The question of social resources and social capital reflects many debates. We shall use "resources" and "capital" in a rather synonymous way, the latter having the advantage of explicitly emphasising the possibility of transformation of one type to another as well as highlighting on a general relational frame in which it is produced. Let us develop these aspects somewhat, going back to stratification analysis and class theory.

When speaking about inequalities and resources, nearly all sociological theories agree that a vertical dimension is one of the main organisers of differences, by contrast to a horizontal one, whose content is more disputed in the literature.[16] Most often, this also refers to occupations, as work situation is related to many resources. Such a dimension appears for example when looking at social scales like prestige, CAMSIS, ISEI, etc.

But most class theories have developed a more complex view of society, assuming two or more dimensions. A long list of references can be mentioned, going from Wright (1985) or Kriesi (1989) through Erikson and Goldthorpe (1992) to Oesch (2006). One way to outline this debate could be by following Bourdieu when he considers a social space as based on a combination, and distinction, of two types of capital: economic and cultural. This plurality of dimensions is also assessed for other domains than stratification (e.g. by Bourdieu when speaking about "distinction" and advancing the hypothesis of "homology"[17]) but also considered by "ordinary" people themselves when they are free to use more dimensions (Lorenzi-Cioldi & Joye 1988).

The most frequent dimensions discussed in this context are economic and cultural capital[18] but, as mentioned earlier, authors like Bourdieu or Lin developed the idea of social capital based on resources available to an individual through his or her social relationships.

Before further detailing the characteristics of economic and cultural capital, and the way to measure them, one more characteristic is perhaps important to stress: as the choice of the word "capital" indicates, there is a possibility of transforming one kind of capital into another. As Bourdieu (1986: 53-54) wrote:

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versation with if you met him/her on the street, and whose name you know. I would also like to know if you yourself have these skills, or own these resources." Another example is the German survey presented in Wolf (2009).

16   See the argument further developed in Oesch (2006).

17   But see also Gayo, Joye and Lemel (2018) for a discussion of this.

18   But, for example, Kaufmann et al. (2004) also consider the capacity to move in physical space a particular type of capital, called "Motility".

"The different types of capital can be derived from economic capital, but only at the cost of a more or less great effort of transformation, which is needed to produce the type of power effective in the field in question. For example, there are some goods and services to which economic capital gives immediate access, without secondary costs; others can be obtained only by virtue of a social capital of relationships (or social obligations) which cannot act instantaneously, at the appropriate moment, unless they have been established and maintained for a long time, as if for their own sake, and therefore outside their period of use, i.e., at the cost of an investment in sociability which is necessarily long-term because the time lag is one of the factors of the transmutation of a pure and simple debt into that recognition of nonspecific indebtedness which is called gratitude. In contrast to the cynical but also economical transparency of economic exchange, in which equivalents change hands in the same instant, the essential ambiguity of social exchange, which presupposes misrecognition, in other words, a form of faith and of bad faith (in the sense of self-deception), presupposes a much more subtle economy of time."

As mentioned, this impact of different types of capital has to be examined on possible outcomes ranging from personal aspects like integration or loneliness, health or trust, to a more global relation to society like evaluation of inequalities, participation or empowerment. These are all elements that we need to mobilise in order to build a comparative survey.

2.4   Elements for a Comparative Survey

On the basis of the options for collecting network data which we have presented here, we propose to consider both a position and resource generator to measure social networks and social capital in the ISSP. Both approaches have been previously used in comparative research also involving ISSP countries (see for example the work of Nan Lin, Yang-chih Fu or Yanjie Bian, see bibliography for some examples). With respect to the name generator, we fear that it would be very difficult to design an instrument that is invariant to survey mode; additionally, we know that the data quality of name generator instruments depends more on interviewer behaviour than other measures. For these two reasons we do not consider this measure as an option for the proposed ISSP module.

Position and resource generator can be easily tailored to the specific research needs, they are very flexible tools. For example, by attaching further characteristics to positions or "people you know with specific resources", e.g. sex or age, both the position and resource generator methods could be used to study the cleavage structure of social relations by sex, age or other social groups. Additionally, one could capture the kind of relationship respondents have with the incumbent of the position or possessor of resources; e.g. by asking whether the person is a relative, friend or acquaintance.

With the combination of position and resource generator questions, we shall be able to analyse the general level of social integration and network range of persons (via position generator) and at the same time we shall have information about concrete resources accessible through social relations. Of course, there are challenges in adapting these instruments to be comparable throughout the ISSP countries. For example, we would have to find occupations or other "social positions" that are functionally equivalent in a cross-national study. The same is true for resources; e.g. is the meaning of "financial support" constant across countries? However, we believe these problems can and should be solved.

From a cross-national perspective, the proposed module allows us to address numerous important research questions. From the ISSP module on social inequality we know that the degree of inequality varies across countries (and across dimensions of inequality). With the data obtained from the position generator we can study the degree of social integration or fragmentation in societies and see to what extent this depends on social inequality (this is a well-known hypothesis of Wilkinson 2005).

A further research question relates to the degree to which resources accessible through social relations substitute (missing or decreasing) welfare state provisions. One could expect, for example, that in situations in which the state provides support for those in need the effect of social relations on living conditions and well-being is weak. Conversely, in situations in which support by the state is missing or weak, social relations should play a more important role for acquiring necessary resources and achieving a state of well-being.

Finally, the degree to which social capital, i.e. resources accessible through social relations, is associated with economic capital (income/wealth) and cultural capital (education) probably varies between countries. We expect to find a higher degree of association between these three forms of capital in societies marked by a larger degree of inequality, implying that substituting one form of capital by another is less possible the more unequal a society is.

2.5   Basic Model

The basic conceptual model underlying the creation of the ISSP module on "Social Capital and Social Resources" is the assumption that behaviours, attitudes and representations of social norms are at least partly a function of resources including social resources people have. In addition, we assume that the relationship between resources and outcomes is moderated by institutions, in our case particularly the national context. In this chapter, we describe the central concepts we include in the module and present their measurement. The schema proposed by Julia Häuberer (2011), developing the ideas of Nan Lin, is a way to represent some of the challenges.
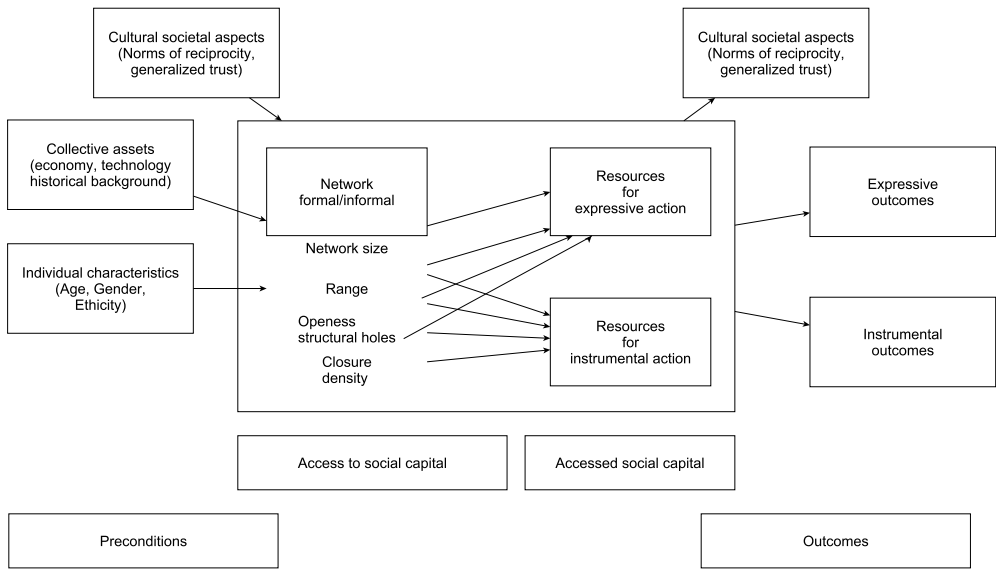
Figure 2.1   Interplay of preconditions, social capital and outcomes
(source: Häuberer 2011, p. 150, Figure 6)

Different aspects are important in Figure 2.1:

- The context is an important characteristic to consider. We shall try to formalise this in a specific chapter (Chapter 10). This is also a way to link the sociology of networks with public policies and welfare state analysis.
- An important difference is between "Access to" and "Accessed" social capital, or between potential and realised resources. We shall return to this discussion when looking more closely at the resource generator discussed in Chapter 7 and the position generator presented in Chapter 6.
- The outcomes can be of different types: instrumental as well as expressive. This means that we have to consider a broad range of outcomes to cover these dimensions. They are discussed and defined in Chapter 4, while the results will be presented in Chapter 8.
- Individual characteristics are also part of the "preconditions". Of course, we shall take into account age and sex in Chapter 8 but special attention will be given to the construction of economic and cultural capital in Chapter 5.

These dimensions will be present throughout this publication. But before we go to the results and discuss the articulation of dimensions in every detail, we have to describe the data that will be used to define and evaluate measurement options in different contexts.

3 Development and Implementation of an Exploratory Survey

The data used here are part of the construction of an ISSP module on social networks and social resources. We shall briefly recall the main aims and characteristics of the ISSP project and the specific role played by this preliminary survey in the process of developing this new module. Then we describe the content of the survey and the participating countries.

3.1 ISSP and Survey Development

The International Social Survey Programme (ISSP) is a cross-national survey project that began in the 1980s. The idea for the founding countries – Australia, Germany, Great Britain and the United States – was to add, to "piggy back", a specific and comparative module to the existing national social survey. The central features of ISSP questionnaires originate from this design: they should not be too long, just sixty items, it should be possible to administer the survey in self-completion mode, though face-to-face completion is also accepted, and socio-demographic variables can be *ex ante* output harmonised because they may be taken from the national surveys.

Since its foundation the number of participants has increased to almost fifty countries in six continents. This growing cultural diversity makes careful discussions of cross-national comparability of measures ever more important. The multi-faceted history and core principles of the ISSP are summarised in the book published for its twenty-fifth anniversary (Haller et al. 2012).

Figure 3.1   Countries participating in the ISSP in the year 2017
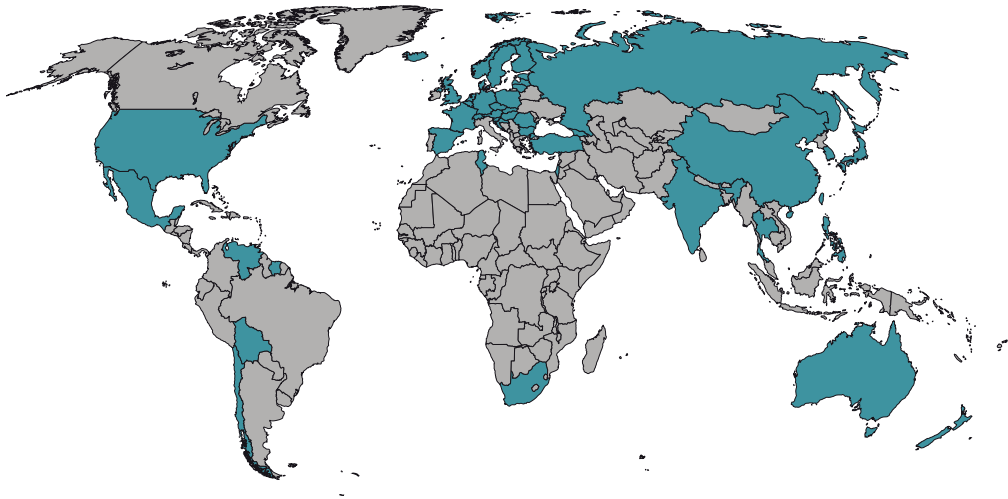
Within this general framework, an ISSP module is developed respecting the following steps:[19]

- During each annual meeting, called the General Assembly meeting in the ISSP context, the topic of the survey fielded three years later is voted and a drafting group comprising around six countries from different continents is elected. If it is a new module, a detailed rationale of the proposed survey also has to be distributed in advance. The module on "Social Resources and Social Networks" was adopted in the 2014 meeting in Tampere (Finland).
- For the next General Assembly, in this case in the year 2015, a more elaborated concept breaking down the topic into several subtopics has to be presented by the drafting group. Also examples for questions have to be proposed. After an intense discussion the General Assembly votes for priorities in the choices of subtopics to be included in the final module.
- Following this meeting the drafting group will usually develop and field a pretest survey, which will be used to prepare the final questionnaire. To improve the design and formulation of questions, this pretest typically includes significantly more items than the final questionnaire.
- At the following annual meeting of the General Assembly, in this case in 2016, the final questionnaire is adopted by voting item by item. After this meeting the final questionnaire is formatted and only minor language improvements to the British English can be accepted. The final source questionnaire that is binding for all participating countries is finalised by the summer following the adoption by the General Assembly meeting.
- The module is then fielded by each country. To be integrated in the common dataset, national data must be transmitted to the archive no later than 1st of September of the following year, meaning in our case 2018 for the 2017 module.

The data and documentation are then freely available and ready for analysis for researchers worldwide.

3.2   An Exploratory Survey on Social Networks and Social Resources

The ISSP asks the drafting group to conduct a pretest for a new or updated module. This is good practice according to survey methodology but is even more important in this context as a module can only contain 60 substantive items, implying that space for questions is very limited. Identifying the "best" measures and developing the most useful questionnaire is demanding and time-consuming.

It is important to document the development of a questionnaire indicating the origin of items and explaining the selection of questions and items for the final instrument. Our "pretest" or exploratory survey, as we like to call it, does not only allow us

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19   For more information on the ISSP visit http://www.issp.org. The Working Principles of ISSP can be found here: http://www.issp.org/fileadmin/user_upload/Rules_and_regulations/ISSP_WP_FINAL_2018.pdf.

to choose between questions or indicators to measure core concepts around social networks but it is also the basis for deciding which other variables should be included in the module. Depending on theoretical assumptions these additional variables may function as "independent" or "dependent" variables in relation to the network variables; more on this later.

Another challenge is the need for a tool that can be used in a comparative frame. This means two different things: on the one hand, that the questions can be understood in different contexts, but also that they are the best possible measures in each context. The first point is relatively easy to obtain with well-established techniques of questionnaire development (Wolf et al. 2016) but the second needs careful estimation and development of empirical models. A large part of this report will be devoted to this.

An important point has to be underlined all along this report: the technical quality of the data was not always as good as one might hope. For example, some samples were limited in size. Some others were not drawn in a proper random frame.[20] But in any case the diversity of local contexts was present, which is the first condition to assess the possible success of such an experiment. More important, if we can establish stability of measurement between such different countries and methodologies, this implies that the results are fairly stable.

3.3   Fieldwork

Participating countries and modes

All the countries participating in the drafting group as well as Taiwan (expert) and Venezuela contributed to the pretest. Germany organised a web survey not only in Germany but also in France and Great Britain. Sample characteristics are presented in Table 3.1.

In the end, the resulting data, as mentioned, were very different in quality depending on the country, ranging from a clearly specialised survey in the capital of Venezuela to a nearly representative one in the USA or Switzerland with a German and French version, a random sample of individuals and a more than 50% response rate on the total number of addresses. For homogeneity reasons, we finally decided to drop the Venezuelan sample from the quantitative analysis.

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20   China and Venezuela yielded mostly urban data; the Internet panel used in France, Germany and the UK was a quota sample from an access panel not a random population sample.

Table 3.1   Countries and respondents

Country		N	Mode	Sample
CN	China	212	Face to Face	Changchun, Lanzhou, Jinan, Tianjin, Xi'an Xiamen and Guangzhou; Random sample in 2 neighborhoods of each of these 7 cities, roughly 50% Response rate
TW	Taiwan	114	Face to Face	National representative stratified sample at 3 levels (cities, neighbourhood, household) roughly 50% response rate
FR	France	518	Web	Online Access Panel, quotas for age, sex, education
DE	Germany	781	Web	Online Access Panel, quotas for age, sex, education
CH	Switzerland	1041	Mail	Random Sample based on list of individuals from the German and French part of Switzerland, roughly 50% response rate
TR	Turkey	238	Face to Face	Survey in the main 4 provinces
GB	Great Britain	525	Web	Online Access Panel, quotas for age, sex, education
US	United States	248	Web	Nationally representative, probability based Internet panel
VE	Venezuela	100	PAPI	Convenience sample in Caracas

Note: Venezuela will not be used in the analysis presented here, not only because of the small sample size but also because the sample frame only covered the capital. The possibility of adapting the questionnaire to Spanish was nevertheless established.

Timing

The time was short so as to respect the ISSP timetable: in September 2015 a version of the questionnaire taking on board the decision of the General Assembly of May was distributed for consultation to all ISSP members. In October the exploratory pretest questionnaire was finalised and the data collection began. By December, nearly all data were already collected.[21]

3.4   Questionnaire

The design and questionnaire of this exploratory survey were completely in line with the theoretical frame presented in Chapter 2. By implementing this module in a cross-national survey we can study how national contexts shape the opportunities and constraints for personal relationships and social capital (Part A, in Figure 3.2). Within the questionnaire we can distinguish between three parts corresponding with other parts of the theoretical model:

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21   For Switzerland, some data came later and were only available in January. The analyses presented here are based on the full set of Swiss data.

- A part measuring the three types of capital (Part B):
  - Economic capital
  - Cultural capital
  - Social capital, this topic being subdivided according to the measures;
- A set of variables reflecting the perception of social integration and internal resources (Part C);
- Finally, a part containing measures for outcomes, focussing on concepts from the micro to the macro level and taking a meso level into consideration (Part D).
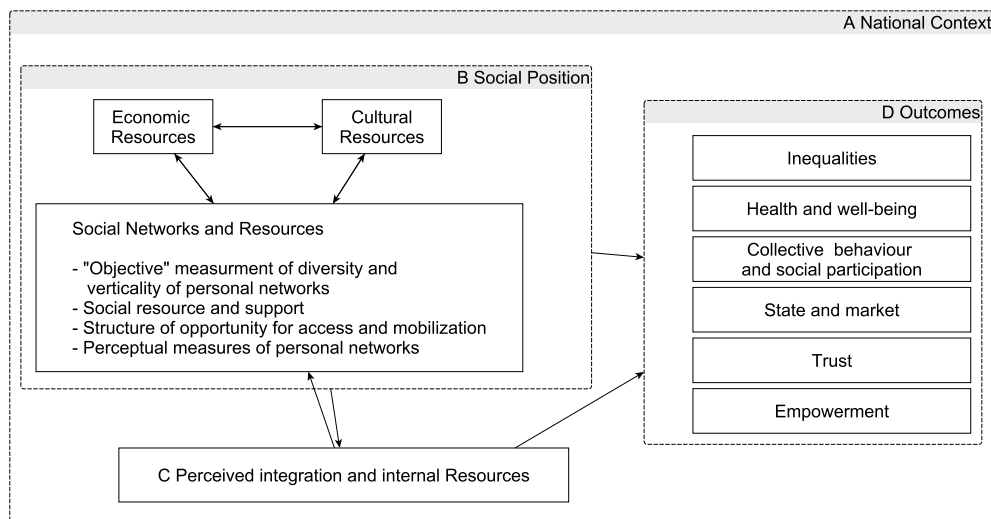

Figure 3.2   Schema of the module

One way to describe the pretest questionnaire is by noting that every concept on average was measured by twice the number of indicators than would be possible in the final questionnaire. Just to give an example, the position generator used 20 occupations whereas it was expected to have a set of 10 occupations at the end.

There were two exceptions to this rule of more or less doubling the number of indicators:

- The socio-demographic questions were not as elaborate as the normal ISSP set. One reason for this was the difficulty of having a complete coding of occupations in the International Classification of Occupations (ISCO) in a short period of time, but the main reason was that these questions are already well established in the ISSP tradition.
- For the resource generator, the drafting group had an interesting discussion. Some members preferred to use the version developed in the 2001 module. This is a very long list mixing personal and organisational resources, with a first choice/ second choice format proposed to the respondents. Others favoured a version more similar to the position generator with separate questions for personal and

organizational resources. In the end, we decided to test both versions, in a split design format.[22]

The questionnaire used in this exploratory survey is reproduced in the Appendix, as well as the final questionnaire that was fielded as the ISSP 2017 module.

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22 China and Turkey administered split A and B to all respondents. However, Turkey did not ask for second choices for all items in split A.

Part II

From Concepts to Measures

Introductory Remarks

The main aim of this part is to establish measures for all central concepts on which the ISSP module is based. It is not only a technical challenge but also a substantive one: the quality of the results obtained from survey data is strongly linked to the quality of the indicators. As previously mentioned, one of the goals of our exploratory survey is to establish the properties of the indicators and choose the most appropriate ones. To do this in a comparative frame is a further challenge that we address by carefully assessing equivalence of measures across countries.

The central chapters of this part are devoted to measuring social capital in various forms. As the validity of our measures is tested against reference criteria referring to individual, interpersonal and societal level indicators, their operationalisation will be described in the first chapter of this part.

Therefore, we shall discuss here:

- Operationalisations of the outcome variables in our model;
- Ways to measure the social position of respondents, both as a function of their work and also as a function of their resources in terms of cultural and economic capital;
- How to build a position generator in a comparative setting and derive a social capital measure from this instrument;
- How to construct a resource generator which is valid in very different countries and derive a second social capital measure based on access to resources.

4   Perceived Integration and Outcomes

It is not common to begin the description of measures used in a study by focusing on the outcome variables. Nonetheless, we start with these variables because they are used to validate other measures. The presentation of outcome variables is ordered to first cover more individual or psychological aspects, then moves on to aspects of interpersonal relations and finally discusses concepts reflecting the relation between the individual and society, in other words from loneliness, through trust in people, to social participation. In each case we first introduce the basic concept, then discuss the indicators and their sources and subsequently present the results of our analyses.

From a methodological point of view, there are many ways to establish scales, i.e. from simple principal component analysis (PCA) to complex modelling of confirmatory factor analysis (CFA) in a structural equation modelling framework, taking into account method effects like acquiescence (Billiet & McClendon 2000 for example) or carefully checking for multi-group equivalence between countries (Steenkamp & Baumgartner 1998). Equally, after establishing a measurement model, the measure can be formed as a simple additive index or in the form of factor scores reflecting the common variance present in the data. In this exploration of the data, we have decided to use the standard tool, PCA, knowing and verifying that the correlation with an index is always very high. To be able to detect possible method effects, we compare the initial unrotated solution with an orthogonally rotated solution. This strategy is described in more detail when looking at the first set of variables.

4.1   Perceived Integration

The association between social networks and outcomes is to some extent mediated by perceived integration. The subjective evaluation of social integration varies between people even if the degree of their social embeddedness is similar (that is why perceived integration has an intermediate position in Figure 3.2). Some items were devoted to capturing perceived degree of social integration in addition to "objective" measures of social connectedness, based on two scales: 1) the short scale of three items measuring social isolation developed by Hughes et al. (2004; the Short Loneliness Scale: SLS), and 2) the Revised UCLA Loneliness Scale: UCLA-LS-R, which distinguishes three dimensions labelled: isolation, relational connectedness, and collective connectedness, respectively (Hawkley et al. 2005). According to the literature, these three mental representations are consistent in young and in old adults and are significantly related to the number of close relatives and friends and regular contacts with them. Social isolation items are similar to the Short Loneliness Scale and measure the feeling of being isolated from intimates. The questions on relational connectedness show some similarity with standard items assessing emotional support. Collective connectedness is predicted by the number of group memberships (Brewer & Gardner 1996).

For this exploratory survey we included three items related to personal loneliness (Question 27, Items d, f and h, based on the Short Loneliness Scale (Hughes et al. 2004)) and two items that cover the aspect of collective connectedness (Item e, from UCLA-LS-R and the new Item b). The other items of the scale tap aspects of relational connectedness, in terms of emotional support (Items a and c) and feeling of acknowledgment by others (Item g).

Q27. The next questions are about how you feel about different aspects of your life. For each one, please indicate how often during the past 4 weeks you have felt that way.

Response categories: Never; Seldom; Sometimes; Often; Very often

How often in the past 4 weeks have you felt that ...

    a. ... there are people you can turn to?

    b. ... it is hard to get into a group of friends?

    c. ... there are people who care about you?

    d. ... you lack companionship?

    e. ... you are part of a group of friends?

    f. ... you are isolated from others?

    g. ... there are people who show respect to you?

    h. ... you are left out?

As mentioned at the beginning of this chapter we use principal component analysis to explore and summarise the properties of our scales. We first look at the unrotated solution which is given here for the first four factors.

Table 4.1   Perceived integration: PCA item loadings on four factors, unrotated solution

	F1	F2	F3	F4	Communality
Q27a people you can turn to	−.45	.63	−.47	.29	.90
Q27b hard to get group of friends	.67	.43	−.19	−.25	.73
Q27c people who care about you	−.59	.58	−.16	−.06	.72
Q27d you lack companionship	.71	.40	.19	−.04	.70
Q27e part of a group of friends	−.62	.40	.52	.31	.91
Q27f isolated from others	.77	.43	.07	.01	.78
Q27g show respect to you	−.62	.48	.23	−.48	.91
Q27h you are left out	.76	.36	.13	.22	.77
Explained variance	.38	.20	.07	.06	.71

Explained variance per factor is already low on the third factor and drops below 5% for the fifth and all further factors. A closer look shows that two factors clearly domi-

nate the structure – at least in terms of explained variance. The first of these reflects the feeling of isolation and loneliness. The positive or negative phrasing of the items is clearly reflected in their positive and negative loadings on this first factor. The second unrotated factor only shows positive loadings, which – given the polarisation of items – indicates that the items have something in common other than their substantive content (cf. Billiet & McClendon 2000). For example, this "method factor" could be related to the answering scale using subjective frequency (e.g. seldom, often). An inspection of the rotated solution may help to clarify this matter.

Table 4.2   Perceived integration: PCA item loadings of two factors, rotated solution

	F1	F2	Communality
Q27a people you can turn to	.03	.78	.60
Q27b hard to get group of friends	.79	−.07	.63
Q27c people who care about you	−.11	.82	.69
Q27d you lack companionship	.80	−.12	.66
Q27e part of a group of friends	−.25	.70	.54
Q27f isolated from others	.87	−.13	.78
Q27g show respect to you	−.20	.76	.62
Q27h you are left out	.82	−.18	.70
Explained variance	.31	.27	.58

A priori, the rotated solution looks fine. On the first dimension we find Items b, d, f and h while Items a, c, e and g are related with the second dimension. Closer inspection reveals that all negatively worded items are associated with the first, all positively worded items with the second factor. This result reinforces our suspicion that we are dealing with a method effect.

In the context of this contribution we are not interested in the method effect[23] but rather in having a stable measure of social isolation and loneliness. For this reason we choose the first component of the unrotated solution as our measure. As higher values of the answer scale mean more often and as the negative items such as "it is hard to get into a group of friends" have a positive loading, this means that high values of the score indicate a strong feeling of **Loneliness**[24].

We have mentioned the possibility of using a simple additive index to measure a dimension. An advantage of this approach may be that it is easy to reproduce in different contexts, as opposed to a factor score which is optimised for a particular set of observations. In this case – and this is rather typical – this is an academic discussion

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23   In the construction of the position generator, we were nevertheless interested in keeping the maximum of variance, including method effect, and we have kept these two factors in this particular chapter.

24   The name of concepts set in bold will be used in further analyses.

as the correlation between an additive index and the first component is 0.996, meaning that these two measures are fully interchangeable.

4.2 Reciprocity

Social relations are governed by norms about exchange, obligation and reciprocity (Torche & Valenzuala 2011). There are norms governing family solidarity as well as norms regulating less intimate relationships and also relationships with strangers. Reciprocity is important to these norms: the importance and use of network resources is a function of the trust that people have in receiving some form of return on their investment. Reciprocity is considered here as a social value, ensuring the provision of support in case of need.

Norms of reciprocity within family as well as with friends are measured here by a four-item battery previously used in the ISSP 2001. Two additional items measuring norms of reciprocity in general are included in this study, adapted from a scale on personal norms of reciprocity (Perugini et al. 2003).

Q30

Five-point agree-disagree scale

a. Adult children have a duty to look after their elderly parents.
b. You should take care of yourself and your family first, before helping other people.
c. People who are better off should help friends who are less well off.
d. It is all right to develop friendships with people just because they can be of use to you.
e. Helping somebody is the best way to be certain that this person will help you in the future.
f. When someone does a favour to somebody else, this person feels committed to repay him/her.

Again we applied a principal component analysis to this set of items. Based on eigenvalues we extracted two factors which together explain more than half (55%) of the variance.

Table 4.3 Reciprocity, 2-factor PCA, rotated solution

	F1	F2	Communality
Q30a Children look after parents	.04	.80	.65
Q30b Take care of yourself before helping	.12	.61	.39
Q30c Better off should help friends less well off	.16	.71	.53
Q30d Friendships just because they can be of use	.71	.16	.54
Q30e Helping best way to get help in future	.79	.13	.65
Q30f Committed to repay	.74	.09	.55
Explained variance	.29	.26	.55

Examining the unrotated solution (not shown here), the first factor represents a dimension common to all items while the second factor points to a differentiation between the first and last three items. This impression is strengthened if we look at the rotated solution. Hence, we reject the possibility of a "method effect" here and assume that there is a conceptual difference between the two factors. The first dimension is based on Items d, e and f, which have a more instrumental idea of reciprocity, based on the idea of "give and take". We call this aspect **Instrumental reciprocity**. The second factor refers to moral obligation to help those in need; we call this factor **Intrinsic reciprocity**. As the coding goes from 1 "Strongly agree" to 5 "Strongly disagree", high values on the score mean low support for reciprocity. To make the interpretation of these factors more straightforward we inverted their scores.

4.3 Health and Well-being

Research has shown that social factors such as the degree of social inequality are among the most important determinants of health and well-being in rich countries (Wilkinson 2005). Social integration and social support have a positive impact on psychological and physical health (Cohen & Wills 1985; Berkman et al 2000; Cohen, Underwood & Gottlieb 2000; Kawachi & Berkman 2001). Lack of social support, conflictual social relationships with family or friends, stress, social and material rewards that fail to match work effort, job and housing insecurity, stress and depression, were found to produce poor health (Wilkinson 2005). We propose to measure health by one general question on subjective health (Q47; from ISSP 2011) and one item on functional health (Q48a; from ISSP 2011). Well-being is captured by one item on depressive mood (Q48 c; from ISSP 2011), by three items on stress and control (Q48 b, d and e; from the Stress Perceived Scale developed by Cohen and Williamson (1988).

> *Q47. In general, would you say your health is ... Excellent; Very good; Good; Fair; Poor*
>
> *Q48. During the past 4 weeks how often... (with a scale from 1 never to 5 very often)*
>
> a. ... have you had difficulties with work or household activities because of health problems?
>
> b. ... have you felt that things were going your way?
>
> c. ... have you felt unhappy and depressed?
>
> d. ... have you felt confident about your ability to handle your personal problems?
>
> e. ... have you felt difficulties were piling up so high that you could not overcome them?

In the analysis of Chapter 8, as well as in the model presented here, we have kept the question about health (Q47) separate[25] and conducted a principal component analysis on the items of Q48. At first glance, a two-dimensional solution retaining almost 60% of the variance may seem adequate.

Table 4.4   Health, 4-factor PCA without rotation

	F1	F2	F3	F4	Communality
Q48a Difficulties with work or household	.58	.46	−.67	−.04	1.00
Q48b Felt things were going your way	−.59	.63	.14	−.49	1.00
Q48c Felt unhappy and depressed	.81	.29	.29	.07	.83
Q48d Felt confident	−.60	.62	.06	.50	1.00
Q48e Difficulties were piling up	.80	.30	.34	−.02	.84
Explained variance	.39	.19	.11	.08	.78

However, closer inspection of the unrotated solution reveals that the first factor combines the positive and negative aspects of health as expected, while the second factor, with only positive loadings for all items, most likely presents a method factor linked to the underlying measure of frequency present in the response categories. If we, nonetheless, consider a two-factor solution after rotation we obtain a first dimension emphasising negative and a second reflecting positive feelings. Even if it is rather common to distinguish two dimensions, one with the positive items and another with the negative aspects, we prefer to keep only the first factor of the unrotated solution in the analysis of the next chapters.[26] As the negatively phrased items like "have you had difficulties..." have positive loadings, we have inverted the factor

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25   As higher values of the scale mean poorer health, we have inversed this variable in further analysis.

26   The exception again being the chapter on the position generator, where we wanted to keep the maximum of variance in the process of selecting the best set of occupations.

in further analysis in order to speak of **Well-being** and not a possible opposite like ill-being.

Here again we find a correlation very close to 1.0 between the factor score and the additive index.

Table 4.5   Health, 2-factor PCA with rotation

	F1	F2	Communality
Q48a Difficulties with work or household	.74	.04	.55
Q48b Felt things were going your way	−.12	.85	.74
Q48c Felt unhappy and depressed	.83	−.23	.75
Q48d Felt confident	−.13	.85	.74
Q48e Difficulties were piling up	.82	−.22	.73
Explained variance	.39	.31	.70

4.4   Trust

Indicators of trust, in other persons and in institutions, supplement the network measures of social capital (Zmerli & van der Meer 2017). This allows examining how far trust varies with different aspects of social networks and resources across contexts. Humans are social creatures and society depends on successful interaction between its members. This success depends to a notable degree on interpersonal trust and related evaluations of other people. We propose to measure trust in others by repeating the three-item battery which was included in the ISSP survey of 2001 (see Q28).

With regard to trust in institutions, some theories on trust exclude political trust because one cannot trust abstract systems, only people (Levi 1998). Others point out that the state is becoming increasingly important in regulating social life, and therefore it is a central issue in theories on trust. Indeed, relations between network measures, social trust and trust in institutions are important for analysing citizens' possibilities of influencing the state and its capacity to regulate. However, the government is not alone in this game and the market, as represented by the economic sector, is also to be considered. Therefore, we propose to measure trust in representatives of three types of institution: the head of government, the CEO of a private bank or of a big enterprise, and the members of the Supreme Court (Q29).

Q28

Five-point agree-disagree scale

    a. There are only a few people I can trust completely.

    b. Most of the time you can be sure that other people want the best for you.

    c. If you are not careful, other people will take advantage of you.

Q29. Using the following scale ranging from 0 to 10, where 0 means "No trust at all" and 10 means "Complete trust", please indicate how much you personally trust each of these people?

    a. Head of the [COUNTRY]'s government

    b. CEO of a private bank or of a big enterprise in [COUNTRY]

    c. Members of the [COUNTRY] Supreme Court

Table 4.6   Trust in others, First component of a PCA

	F1	Communality
Q28a I trust only few people	.77	.60
Q28b Other people want the best for you	−.61	.37
Q28c Other people take advantage of you	.77	.60
Explained variance	.52	.52

One principal component combining more than half of the variance (52%) represents **Interpersonal trust**. As the variables were measured on an agree-disagree scale, a high value of the score means a high level of trust in others.

Table 4.7   Institutional trust, First component of a PCA

	F1	Communality
Q29a Head of government	.86	.73
Q29b CEO	.82	.67
Q29c Member of Supreme Court	.85	.73
Explained variance	.71	.71

Institutional trust was also measured by a principal component analysis with one factor accounting for more than two thirds of the variance (71%). In this case, a high value means high trust and the original coding could be preserved.

4.5   Perception and Justification of Social Inequality

The degree of social integration or fragmentation of a society and the varying roles of social networks in different national contexts should influence the perception of social inequalities, as well as the attitude towards the redistributive role of government (Pages & Jacobs 2007; Côté & Erickson 2009). Assessing some dimensions of attitudes concerning state versus market, notably on care responsibilities, complementing measures on norms of reciprocity and obligation, would allow some analysis on the role of state and market versus personal and family networks by institutional context and welfare state regimes. How are inequalities in social relations perceived, evaluated and justified? And how do they vary within national systems by social position and across countries by institutional contexts?

There is a large range of social inequalities; however, income inequalities are significant in all societies. Therefore we focus on the perception of income inequalities. The extent to which they are tolerated relates to personal situation, social relations and social contexts. Depending on national contexts, the level of segregation in social relations and of social inequalities, individuals in distinct social positions might differently perceive and justify social inequalities in societies (Pichler & Wallace 2009). Too much perceived inequality, a feeling of inequity in the distribution of resources, can endanger trust and solidarity in a society.

In this exploratory survey, we measure the perception of social inequalities by using items from the ISSP 2009 module on Social Inequality (Items a, c, and d) and four items (b, e, g and h) from the European Social Survey of 2008[27]. Among these last items, three reflect the consequences of state benefits (e, g and h). Item f is a new item aiming to measure inequality and cultural capital.

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27   See https://www.europeansocialsurvey.org, accessed 6 September 2018.

Q3

Five-point agree-disagree scale

  a. Differences in income in [COUNTRY] are too large.
  b. For a society to be fair, differences in people's standard of living should be small.
  c. The government should spend less on benefits for the poor.
  d. It is the responsibility of the government to reduce the differences in income between people with high incomes and those with low incomes.
  e. The social benefits and services in [COUNTRY] make people less willing to care for one another.
  f. The government should make sure that everyone who wants to go to university can do so.
  g. There are insufficient benefits in [COUNTRY] to help the people.
  h. The social benefits and services in [COUNTRY] make people lazy.

Using a principal component analysis, two dimensions summarise more than half of the variance (54%).

Table 4.8   Inequalities, 2-factor PCA with rotation

	F1	F2	Communality
Q3a Income differences too large	.74	−.04	.55
Q3b Differences of living standards should be small	.78	−.03	.61
Q3c Spend less on poor	−.21	.74	.60
Q3d Gov. responsible to reduce income differences	.79	−.00	.62
Q3e Social benefits decrease caring for each other	.12	.79	.64
Q3f Gov. responsible that everyone can go to university	.53	−.04	.28
Q3g Insufficient benefits	.56	−.13	.33
Q3h Benefits make people lazy	−.09	.83	.69
Explained variance	.30	.24	.54

The first dimension with high loadings of Items a, b and d and smaller loadings of Items f and g captures the appreciation of inequalities. We call this dimension **Inequalities** and people scoring high on this factor do not support the idea that inequalities are too large, as the question was using an agree-disagree scale. For all further analysis, the scale was inverted, meaning high values correspond to high feelings of inequality.

The second dimension is marked by Items c, e and h. These represent the idea that social benefits are not efficient and make people lazy. According to the coding of the

original questions, we call this dimension **Social benefits** as people scoring high on this dimension oppose the idea that the help of the government is inefficient.

In our view both dimensions can be meaningfully interpreted in terms of the underlying concepts.

4.6   Participation and Empowerment

Participation refers to forms of an individual's engagement in public spheres such as local community, civil society organisations or political activities. An individual's engagement in such forms of collective behaviour and social participation is, we argue, affected by his or her social network, because it is the social network through which information is received, interest generated, resources mobilised and influence felt.[28] One proposition is that the greater the diversity of one's social network, the greater the amount of information, interest, resources and influence obtained and the more probable it is that one engages in collective activities.

To capture these aspects of participation we included three items reflecting participation in different social and political domains (Q9, Q10 and Q11). These items are inspired by the questions asked in Round 6 of the European Social Survey (Q10)[29] and in the East Asian Social Survey 2012 module (Q9 and Q11)[30]. In addition, we inserted two items on political empowerment into the questionnaire borrowed from ISSP 2001 (Q12 and Q13). Political empowerment is related to the dimension of trust. One can hypothesise that social networks impact citizens' empowerment as well as the level of personal trust.

> *Q9. In the past 12 months, how often have you taken part in groups, organisations or associations, either for leisure, sport or arts activities, or for any other forms of social or political activities?*
>
> *Q10. In the past 12 months, how often did you get involved in work for voluntary or charitable organisations?*
>
> *Q11. In the past 12 months, have you taken part in any form of social or political protest?*
>
> *Q12. Suppose you wanted the local government to bring about some improvement in your local community. How likely is it that you would be able to do something about it?*
>
> *Q13. To what extent do you agree or disagree with the following statement? People like me don't have any say about what the government does.*

---

28   In the literature, there is an intense discussion about the direction of causality between social networks and social participation but we do not enter into this debate here.

29   See   https://www.europeansocialsurvey.org/docs/round6/fieldwork/source/ESS6_source_main_questionnaire.pdf, accessed 6 September 2018.

30   See http://www.eassda.org, accessed 6 September 2018.

As expected, we can extract two dimensions from our principal component analysis, explaining three-fifths of the variance (61%). The first dimension is clearly related to our concept of **Participation**; however, the coding is such that people who never do this kind of activity have the highest score; therefore the factor was inverted for further analysis. The second dimension is linked to **Empowerment**, with people agreeing with the usefulness of political action scoring high on the dimension.

Table 4.9   Social and political participation, 2-factor PCA with rotation

	F1	F2	Communality
Q9 Participation in groups for leisure	.79	−.06	.63
Q10 Voluntary/charitable organisations	.81	−.04	.66
Q11 Social/political protest	.62	−.12	.40
Q12 Pressure local government	.39	−.62	.53
Q13 People don't have any say	.09	.89	.80
Explained variance	.37	.24	.61

4.7   Summary

It could be important to check how far these dimensions are interrelated or not. In general they describe a large set of dimensions and this is clearly a quality for defining a set of variables on which to test the impact of social capital, as we shall see in Chapter 8 of this publication.

Broadly speaking, this set of outcome variables covers the entire range from psychological circumstances to the macro-social structure. It runs from personal situation as reflected by measures of loneliness and well-being to a broader form of socio-political integration with participation as well as representation of values like inequalities or intrinsic reciprocity. We can show that each of these measures is also empirically different from the others, describing a space of nearly 11 dimensions as shown by the structure of the eigenvalues presented in Figure 4.1.[31] In the end such an analysis shows a good stability of the indicators and also validates the interpretation given to each of the scores identified. But before presenting this broader landscape, let us present the indicators built to measure the different forms of capital.

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31   If the 11 variables were fully independent the resulting graph would be identical to the main diagonal in Figure 4.1; with more dependency between the measures the resulting graph would move towards the upper left-hand corner of the diagram.
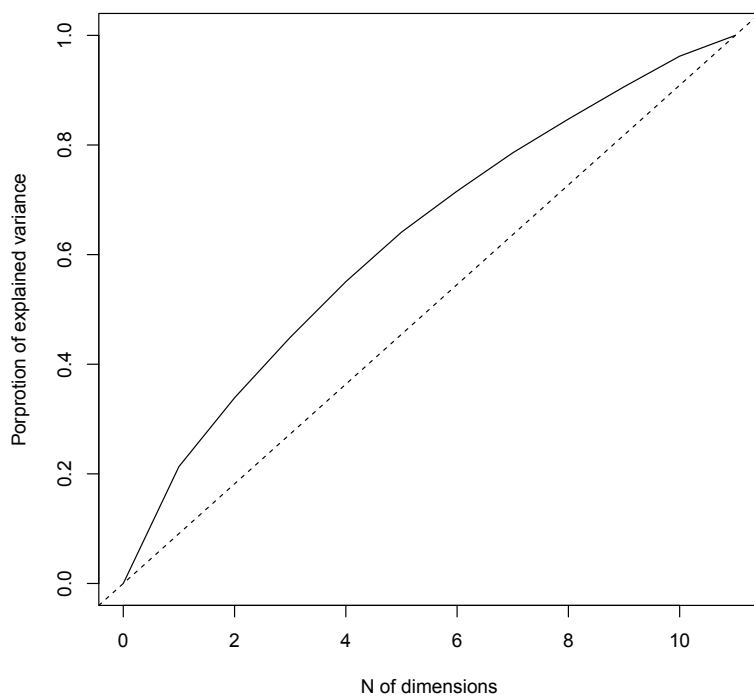
Figure 4.1   Proportion of variance explained by dimension

5 Aspects of Social Inequality

We distinguish two approaches in assessing inequality:

The first approach is based on the idea that occupation is an indicator for social class or status. In our survey we included a list containing ten broadly defined occupational groups, asking the respondent to choose the group into which his or her current or last occupation falls.

Following Bourdieu (1986), the second approach defines different forms of capital, namely economic, cultural and social capital. While our focus is on the last form of capital and we devote the next two chapters to detailed discussions of different ways to capture social capital, in this chapter we briefly describe our attempt to measure economic and cultural capital.

5.1 Social Status Based on Occupations

Social status, as based on occupations, was measured with a single question, already used in many ISSP modules, with the following wording:

Here is a list of different types of jobs. Which type of job do you have now in your current job? If you are not working now, please tell us about your last job.

Professional and technical (for example: doctor, teacher, engineer, artist, accountant, nurse)

Higher administrative (for example: banker, executive in big business, high government official, union official)

Clerical (for example: secretary, clerk, office manager, civil servant, bookkeeper)

Sales (for example: sales manager, shop owner, shop assistant, insurance agent, buyer)

Service (for example: restaurant owner, police officer, waitress, barber, caretaker)

Skilled worker (for example: foreman, motor mechanic, printer, seamstress, tool and die maker, electrician)

Semi-skilled worker (for example: bricklayer, bus driver, cannery worker, carpenter, sheet metal worker, baker)

Unskilled worker (for example: labourer, porter, unskilled factory worker, cleaner)

Farm worker (for example: farm labourer, tractor driver)

Farm proprietor, farm manager

The goal of this question, used in many ISSP modules, was to avoid the time needed for a proper coding of occupations through the categories of the International Stan-

dard Classification of Occupations (ISCO)[32]. This measure serves as a benchmark when discussing economic and cultural capital.

5.2 Economic Capital

Economic capital seems the most obvious form of capital. In the world of General Social Surveys, however, we encounter a number of difficulties, when aiming at a reliable estimate for this form of capital (cf. Warner & Hoffmeyer-Zlotnik 2005). There are many reasons for this, among which the following are particularly important.

- First, one has to acknowledge that the concept is complex. Economic capital consists at least of two components: income and assets. Both of these in turn consist of many components of their own. Income is composed of, e.g. earnings, income from rent, income from assets, income from pensions, monetary transfers. Similarly, assets can include savings, real estate, stocks, any objects of value (jewellery, paintings), etc. Special income surveys attempt to measure these different components but for a multi-purpose general social survey this is out of the question.[33] Instead, the usual approach is to ask for total individual income and total household income.

- From a comparative point of view the problem is aggravated because, depending on the country, earnings are considered on a weekly, monthly or yearly basis. In addition, some countries usually ask about net, others about gross income. Moreover, the difference between gross and net income is not clear for every respondent.[34]

- Finally, asking for income (and wealth) typically results in comparatively high proportions of missing values: either people do not know their income or they are not willing to share this information. In addition, the proportion of missing income information typically varies greatly between countries.

We therefore chose a different approach to measuring economic capital based on two considerations: first, we always obtain a better measure when we use multiple indicators, even if each of these is far from perfect (Schröder & Ganzeboom 2014); secondly, according to the ISSP tradition, a subjective measure can also be a valid indicator. In this line, we have included three items expressing the subjective feeling about the economic situation of the household. The first question was adopted from the European Union Statistics on Income and Living Conditions; the second

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32   https://www.ilo.org/public/english/bureau/stat/isco/, accessed 6 September 2018.

33   This is even more complicated in an international setting. The ISSP 2009 on Social Inequalities tested a couple of measures of wealth but the results were disappointing in many cases.

34   This list of conceptual and operational problems can be continued, for example choosing between open-ended and closed answering formats using income brackets both have advantages and disadvantages which again are moderated in a comparative perspective.

was taken from the European Social Survey; and the third item is part of ISSP standard background variables. These are:

> *Q55. A household may have different sources of income and more than one household member may contribute to it. Thinking of your household's total income, how difficult or easy is it for your household to make ends meet, that is, to pay for its usual necessary expenses?*
>
> *Q56. If for some reason you were in serious financial difficulties and had to borrow money to make ends meet, how difficult or easy would that be?*
>
> For both questions a five-point answering scale was presented ranging from "Very difficult" to "Very easy".
>
> *S7. In our society, there are groups which tend to be towards the top and groups which tend to be towards the bottom. Below is a scale that runs from the top to the bottom. Where would you put yourself on this scale?*
>
> Answers were recorded on a ten-point scale ranging from "top" to "bottom".

To obtain a single measure of economic capital we again combined the three indicators by means of a principal component analysis.

Table 5.1   Economic Capital, 1-factor PCA

	F1	Communality
Q55 Make ends meet	.80	.64
Q56 Borrow money	.76	.58
S7 Top-Bottom	.71	.50
Explained variance	.58	.58

Figure 5.1 depicts box plots for the economic capital scale by occupational groups. The result is in line with our expectation: professionals and incumbents of high administrative occupations are above the mean while semi-skilled and non-skilled workers are far below the mean. Also, men tend to have more economic capital in all occupational groups than women.[35]

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35 One should keep in mind that we do not measure income here but subjective assessment of the financial situation of the household.
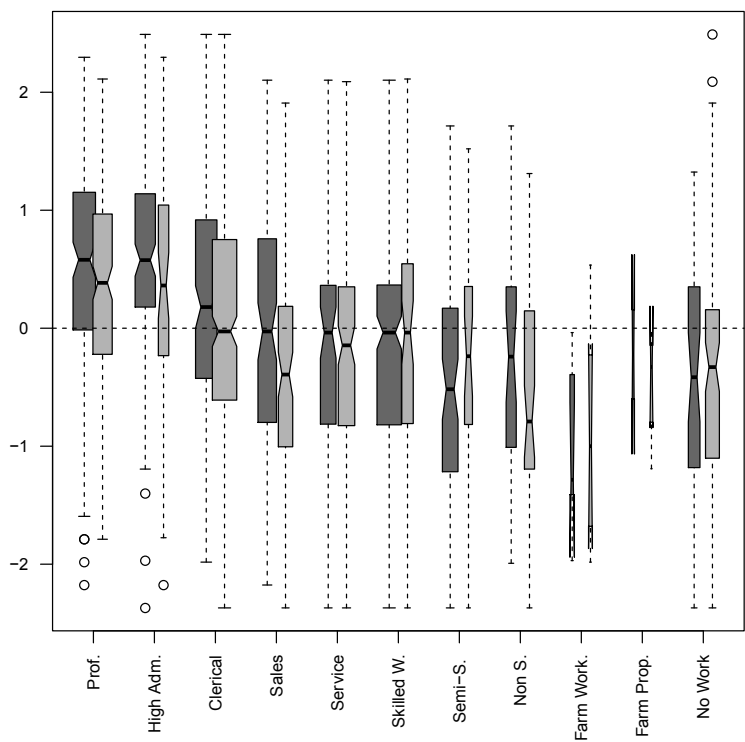
Figure 5.1   Economic capital by occupation and sex (male: black; female: grey)

The distribution of economic capital by country (Figure 5.2) is *a priori* more surprising. China and Taiwan are at the mean of the underlying score, France and Turkey below the mean and Germany, Switzerland and the US have about the same position above the mean. Part of the explanation may be that the measure reflects subjective evaluations of the respondents' position in society.
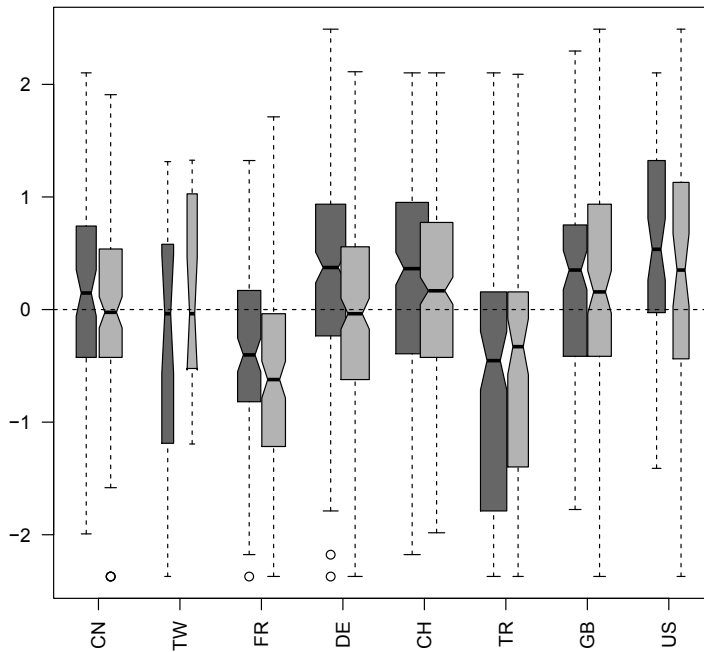
Figure 5.2   Economic capital by country and sex (male: black; female: grey)

5.3   Cultural Capital

According to Bourdieu (1986) cultural capital comes in three forms: embodied cultural capital, objectified cultural capital, and institutionalised cultural capital. If we translate this definition into concepts and indicators we could arrive at:

- Knowledge and competencies as measured by assessment tests,
- Cultural goods like paintings or books, and
- Certificates, in particular those obtained at general and vocational schools as well as university degrees.

In the study we aimed at capturing the first dimension by asking about language skills and using the Internet. In particular we asked whether respondents were capable of holding a conversation or reading a text in a language other than their first one. The question wordings were:

> *Q52. In what language, other than your first language, do you speak well enough to hold a conversation?*
>
> *Q53. And, in what language, other than your first language, could you read most of a news-paper?*
>
> *Q54. How often, if at all, do you use the Internet for any reason?*

We did not include any indicator for the second dimension of cultural capital, although a classic question would be how many books people have in their homes. For the third aspect of cultural capital mentioned above we included the highest level of education obtained by the respondent ranging from no formal education to university degree (see Question S3 in the Appendix).

Table 5.2   Cultural capital

	F1	Communality
S3 Education	.79	.63
Q52/53 Language proficiency	.53	.28
Q54 Internet	.73	.53
Explained variance	.48	.48

To derive one measure for cultural capital, we first computed a variable reflecting whether a person can read or speak in a second language.[36] Then we combined this measure with the indicators on education[37] and frequency of Internet usage[38]. We do this by using the first factor of a principal component analysis. The result is satisfying as nearly half of the variance is summarised by the first component. It is interesting that the variable which is least correlated with this dimension is language ability, which might be dependent on the country situation: in a multilingual country, the structure of correlation between these elements can be different than in a monolingual country.

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36   Of course, the inability to speak or read a second language was not defined as a missing value but as absence of such ability. Questions on language were not asked in the US.

37   People not answering this question were considered without formal education.

38   The same: absence of answer to this question was considered absence of use of the Internet.
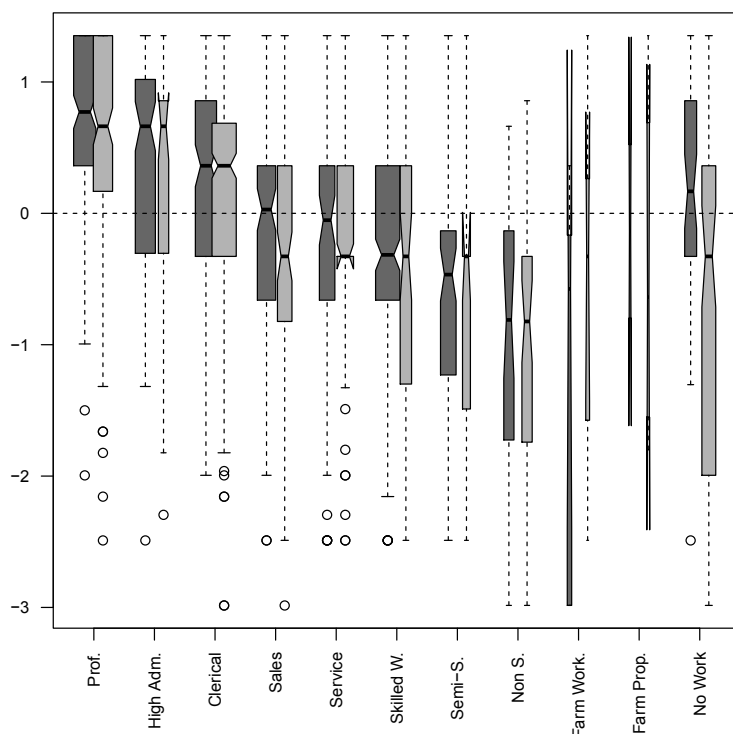
Figure 5.3   Cultural capital by type of occupation of the household (male: black, female: grey)

We use the factor score of education, language ability and internet usage as our indicator of cultural capital in all of the following analyses. As in the case of economic capital, we validate the distribution of this form of capital by looking at breakdowns by occupational group (see Figure 5.3). We have chosen here also to consider a household rather than an individual characteristic: it is the highest level of occupation in the household. In this case such a transformation has no dramatic effect, mainly lowering the number of people without occupation.

That said, a strong correlation between occupational group and cultural capital can be observed. In particular professionals but also high-level administrators and clerical workers show a far higher cultural capital than the other groups. At the lower end one finds the non-skilled and farm workers. It is also interesting to note that the difference between men and women is far more pronounced in the lower status categories than in the higher ones.
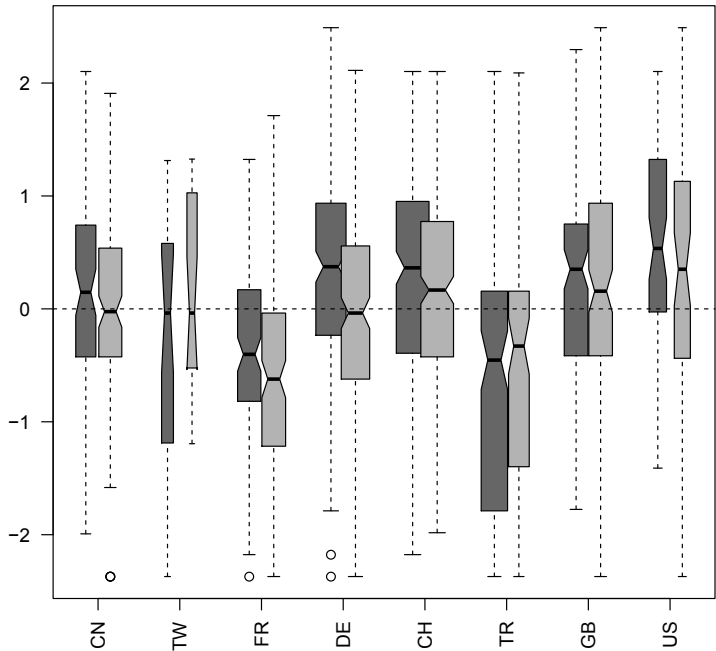
Figure 5.4   Cultural capital by country (male: black, female: grey)

For the breakdown of cultural capital by country we find that Western countries like Switzerland or Germany have the highest values while Turkey and China have the lowest ones (see Figure 5.4). The gender differences are stronger in this latter group of countries, demonstrating the progress in gender equality in the field of education in most Western countries.

These rather descriptive observations aim at portraying the context of observation somewhat closer. Our interest lies in the analysis of the impact of these types of capital on the explanation of attitudes and behaviours as well as the interaction between different types of resources. However, we have still to build measures of social capital. This is the topic of the next two chapters.

6 Position Generator in a Comparative Context

A position generator consists of a set of occupations and a question asking respondents for each occupation whether they know someone in the occupation and the nature of the link with this person. The literature mentions the importance of choosing a valid set of occupations so as to have a high-quality measurement (Hällsten et al. 2015). But few empirical studies have been devoted to the impact of the number and criteria of choices in selecting occupations (but see Fu & Lin 2015). This means that we have two goals in this chapter: to propose a methodology in order to choose the "best" set of occupations in a position generator and secondly to explore which are the characteristics of the occupations proposed that explain the social dimensions presented in Chapter 4 (see also Flap & Völker 2008; Lin et al. 2013).

By characteristics of an occupation, we mean first of all its position in the social structure. From an empirical point of view, an occupation is most often qualified by reference to its socio-economic status or its prestige as, for example, reflected by the ISEI-scale or Treiman-scale,[39] even if the discussion on the use of other tools as class models or other social scales is ongoing and deserves attention.

Of course it is a detective enquiry to find which indicator has the strongest "explanatory power" and part of the story is to put in place analytical strategies going in this line. On the other side, previous studies of the position generator have already proposed some indexes useful to summarise the measure (cf. Li 2015). It could be the size of the network described by the position generator or some characteristic value of the distribution of status scores in the network like its Maximum (or Minimum or Mean), i.e. the ISEI score of the highest ranked occupation mentioned. Even if the correlation between these measures is generally high, we shall see that they are not strictly equivalent and their characteristics can shed different lights on the importance of social positions as defined by a position generator. Similar reasoning can be developed for the resource generator.

6.1 Position Generator and Social Capital

The position generator is a technique that has been used to measure social capital in a network perspective for more than thirty years (Lin and Dumin 1986). It has been implemented in many different contexts and these have been chosen in a theoretically oriented way (Lin et al. 2013). According to Fu and Lin (2015) at least 233 different occupations have been proposed in 73 studies while Verhaeghe and Li (2015) even mention 78 different studies. Verhaeghe et al. (2013) have also discussed ways to select occupations for position generators while some general points to consider are mentioned by van der Gaag (2005).

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39 For the ISEI (International Socio-Economic Index) and the Treiman Prestige scale see among others Ganzeboom and Treiman (2003).

The core idea of a position generator is fairly simple but a number of decisions have to be made to ensure valid and reliable measurement, decisions which closely match those that have to be made in case of the resource generator.

- Which occupations have to be selected? Lin and Erickson (2008: 9) write: "The most critical consideration is the choice of occupations. The occupations should have prestige levels sampled from the full range in the society, from very high to very low prestige, to sample access to a wide range of resources. At every level of prestige there are multiple occupations. From these candidates, the researcher should choose one with many occupants. […] It is also useful to choose occupations from different sectors of the economy, to represent some horizontal as well as vertical differences in occupational resources. It is important to choose occupations with clear, widely understood titles that appear in the society's census."

- How many occupations have to be included in the position generator question? In their review of 73 surveys having used a position generator, Fu and Lin (2015) do not count the number of occupations proposed, but most studies use between 10 and 30 occupational titles. In this publication, we examine what happens when decreasing the number of occupations from a relatively high number to lower ones and propose a number to be included in the main ISSP survey.

- Another decision we have to consider is which part of the personal networks the position generator question should refer to. Once again Lin and Erikson (2008: 9-10) state: "Another important consideration is the nature of the respondent's access to an occupation. Researchers define this by the wording of the start of their question. For example, several projects […] use some variation on the question 'among your relatives, friends or acquaintances, are there any in the following kinds of work?' This asks the respondent to think of a wide range of contacts, from the strongest to the weakest, and so samples all of the potential access throughout the person's network. Sometimes a researcher wants to focus on somewhat stronger ties, because extremely weak ties are not likely to be productive, and so uses a question like 'please think of people you know by name and by sight and well enough to talk to.'"

- Finally, we have to choose the response format. Do we simply want to record whether a respondent knows somebody in a given occupation or do we want to capture the relationship between the respondent and that person, e.g. partner, relative, friend, someone you work with, etc. If we go for the latter approach, we also have to decide whether we use a single response or a multi-response format, knowing that ISSP limitations in terms of space will be a strong incentive to stay with a single response format.

In other words, many details of implementation are of importance for the results, from the way to measure social position (Verhaeghe & Li 2015) to the way occupations are scaled: IRT (Snijders & van der Gaag 2004) or principal component analysis (Hällsten et al. 2015) are just two of many possibilities.

6.2   Data and Methods

We have already presented the international exploratory survey used in this report and the rationale behind the position generator included in the study (see above, Chapter 2). However, most of the methodology used here was developed and tested on a Swiss survey first which was carried out in 2014 by Marlène Sapin and Dominique Joye in the NCCR Lives framework. There are two important differences between the earlier Swiss study and the survey described here: 1) a single vs. multiple country study, and 2) 30 vs 20 occupations, even though the two lists are quite similar.

Q1. The next question concerns the jobs that someone you know might have. This person could be a member of your immediate family, another family member, a close friend or an acquaintance. By "know", we mean that you do not have to know this person really well, but should know him/her by name, by sight and well enough to talk to him/her. If you know several persons with the same kind of job, please just tick the person closest to you.

Do you know someone who is...?[40]

a. a bus/lorry driver, b. a boss of a small enterprise/business; c. the boss of a big company; d. a cleaner; e. a computer scientist; f. a farmer/agricultural worker; g. a foreman; h. a hairdresser; i. a human resource manager/personnel manager: j. a journalist; k. a lawyer; l. a librarian; m. a mechanic; n. a nurse; o. a police officer; p. a professional musician; q. a salesperson; r. a school teacher; s. a social worker, t. a receptionist.

With the answering categories:
- Immediate family
- Other family member
- Close friend
- Acquaintance
- Other person
- No one

The main goal of the following analysis is to define whether a subset of occupations can be identified having the same value as the full set or, at least, to find a subset that minimises the loss of explanatory power.

We wanted to use a single simple criterion as a test of the quality of the explanation. The solution adopted was a canonical correlation analysis between social capital as measured by the position generator and a number of indicators reflecting a wide range of different aspects which are thought to be influenced by social relationships – precisely the ones described in Chapter 4. This approach can also be thought of as a principal component analysis of the indicators derived from the position generator and a principal component analysis of the set of dependent variables, under the constraint of yielding a maximal correlation between the two sets.

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40   If a respondent knew several persons with a given occupation they should indicate the one closest to them.

The logical structure of the canonical correlation analysis[41] is summarized in Figure 6.1: The "left" set is defined by four variables: the minimum and maximum values of social position (reflected by the International Socio Economic Index, ISEI) of people known in different occupations as well as the mean of this score and the number of occupations mentioned (N). Expressed slightly differently: social hierarchy is captured by the mean and the range of social positions known while network volume is reflected by the number of occupations included in the network. These measures are very often used in the literature (Lin et al. 2001; Hällstein et al. 2015). The right set is defined by the indicators presented in Chapter 4.[42] The proposed model gives us a principal component of scores defined by principal components from the previous analyses. The quantity of interest, the one maximised through the analysis, will be the canonical correlation coefficient or the correlation between the components summarising the left and right sets; which here equals 0.44.
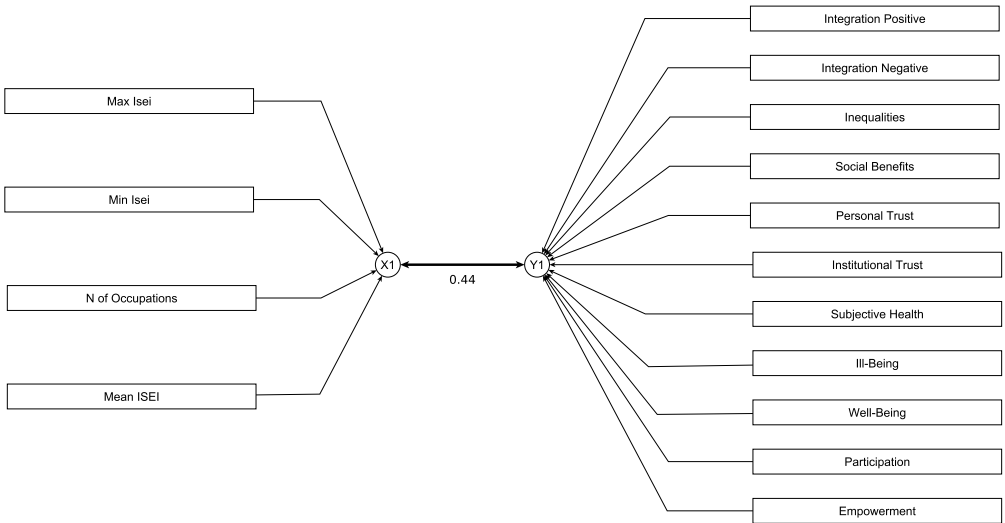
Figure 6.1   Structure of the canonical correlation analysis, one factor considered

41   For a simple introduction to this technique see Levine (1977); for a more detailed one see Gittins (1985). This kind of analysis is also possible inside the Gifi (1991) framework.

42   In order to keep the maximum amount of variance, we have kept a rotated two-factor solution for well- and ill-being as well as for positive and negative aspects of integration. This means that the method component is introduced in the analysis but will have only an impact if needed. Table 6.1 shows that in both cases only one of the two factors has a substantial loading.

In this canonical analysis

- we have transformed the answers into two categories: "presence of relation" if "family" or "friends" were mentioned and "absence of relation" for the other answers.[43]
- For the dependent variables, as mentioned in Chapter 4, missing values of the variables have been imputed to avoid loss of cases: if the answer scale was an agree/disagree question, the middle position was chosen, if it was a frequency scale, the lowest position was used. Other solutions like particular scaling of missing values could have been used but this one was robust. In any case list-wise deletion of missing cases was to be avoided as a great number of indicators were implied and we would have ended up with nearly 40% of cases missing by cumulating small percentages of missingness on each variable.
- We have removed respondents with missing values on more than half of the position generator questions from the analysis.
- For respondents who mentioned "no one" we have imputed the intercepts of models for the maximum – or minimum – regressed on the number of occupations mentioned for those knowing at least one person in one of the occupations.

As said before, our main interest here is not just to evaluate the solution with the full set of 20 occupations but to test the impact of reducing the number of occupations. Thus we have run all analyses on all possible subsets of eight up to the full set of 20 occupations.[44]

Finally, the analyses were done by pooling all samples together without weighting. This implies that we do not expect differences between countries. This is probably a too strong hypothesis but we can take the pooled solution as a reference and compare the loss of explanatory power between this solution and the optimal one for each country.

6.3   Results

Our presentation of results begins with an analysis of the whole set of occupations, before we test the effect of reducing the number of occupations. We then do the same for each of the countries.

Canonical correlation analysis of 20 occupations

The analysis of 20 occupations of the pooled dataset gives us a baseline (see Figure 6.1). With a canonical correlation of 0.44 the relation between the two sets of

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43   Analysis on similar Swiss data shows that a different choice of pertinent categories does not change the structure of the results.

44   For a complete set of 20 occupations, each subset of p occupations, varying from 19 to 8, leads for each value of p to 20!/((20-p!)p!) possible combinations, leading to nearly one million analyses per country.

variables is substantive, even more when considering that no other variables like economic or cultural capital or age or gender have been taken into account (Table 6.1). Looking at the loadings, the number of relations in different occupations, our N factor, as well as the maximum SES reached in one's network on the one hand and participation in movements and associations on the other hand seem to be the most important items (remember **Participation** was revered coded with high values for those who participated less, see Section 4.6).

Table 6.1   Loadings canonical correlation, 20 occupations, left and right sets

Left hand set	Loadings	Right hand set	Loadings
Maximum ISEI	.81	Integration positive	−.11
Minimum ISEI	−.41	Integration negative	.51
N occupations mentioned	.94	Inequalities	.13
Mean ISEI	.37	Social Benefits	.00
		Interpersonal Trust	.28
		Institutional Trust	.34
		Subjective Health	−.40
		Ill-being	.03
		Well-being	.37
		Participation	−.81
		Empowerment	.39

So far so good, but what happens if we reduce the number of occupations in the analysis? The usual expectation would be a loss of explanatory power, but of what order?

How much do we lose when we reduce the number of occupations?

Looking at Figure 6.2, the median value of the canonical correlations slowly decreases when we go from 19 to 8 occupations but is still 0.4 with only eight occupations. That is, the statistical correlation between the two datasets decreases by just over 10% although the set of occupations has decreased by 60%! At the same time the "optimal" set of occupations at each stage achieves canonical correlations which are at least as high as the original value of 0.44. By contrast, the minimum value is much more sensitive, implying that if a smaller set of occupations is adopted the choice must be more careful.

The literature often stresses careful choice of occupations. This is of course correct when looking at the minimal values but with random selection we can nevertheless have excellent solutions. Let us add two caveats to this. First, this is limited by the original set of 20 occupations: it could happen that a different set gives a totally different solution even if it is not really likely since a fair amount of diversity was included in this first choice. The second argument is based on the ISEI as a way to measure the

vertical dimension of stratification. A variety of criticisms have been voiced against this measure, in particular the inability to take into account the gendered structure of occupations. The discussion on this point is still open but the results so far go in the direction of accepting such a solution, at least as a first approximation and in a context of limited space for measurement.
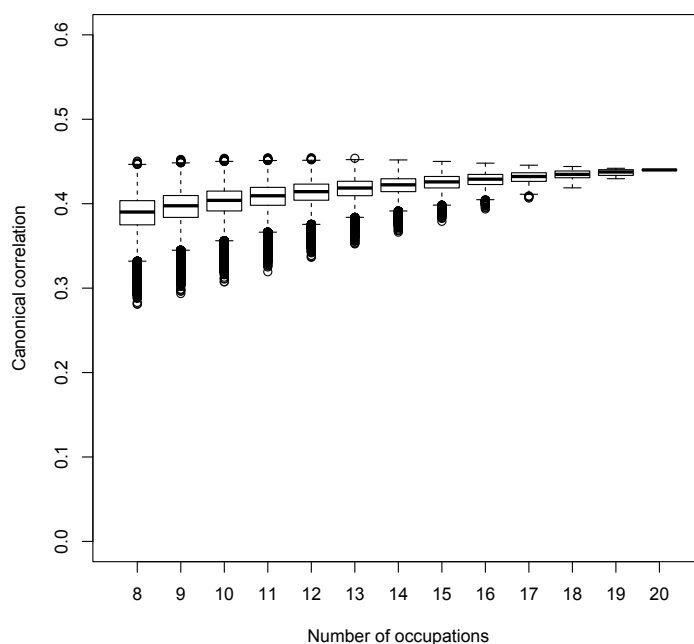
Figure 6.2   Boxplot of canonical correlations, all solutions, all countries

Are there national differences in explanatory power?

When establishing a frame for a comparative survey, the question of comparability is of course crucial. How far could the same results be obtained in different contexts? Let us discuss this first by looking at the explanatory power of our canonical analysis, also when playing with the number of occupations involved.

The main conclusions are the same: in nearly all the countries the value of the canonical correlation is in the same range, around 0.4 in mean and 0.5 at most (see Figure 6.3). Decreasing the number of occupations does not necessarily decrease the explained variance! In all countries, the difference between the lowest and the highest coefficient increases, confirming that the choice of occupations is more important the smaller the number of occupations used. The only exception is Great Britain, which shows the same pattern but at a higher level of correlation.[45]

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45   We do not have a final explanation of this pattern in Great Britain. The only element that appears in the analysis is the determining role in the structure of participation in social
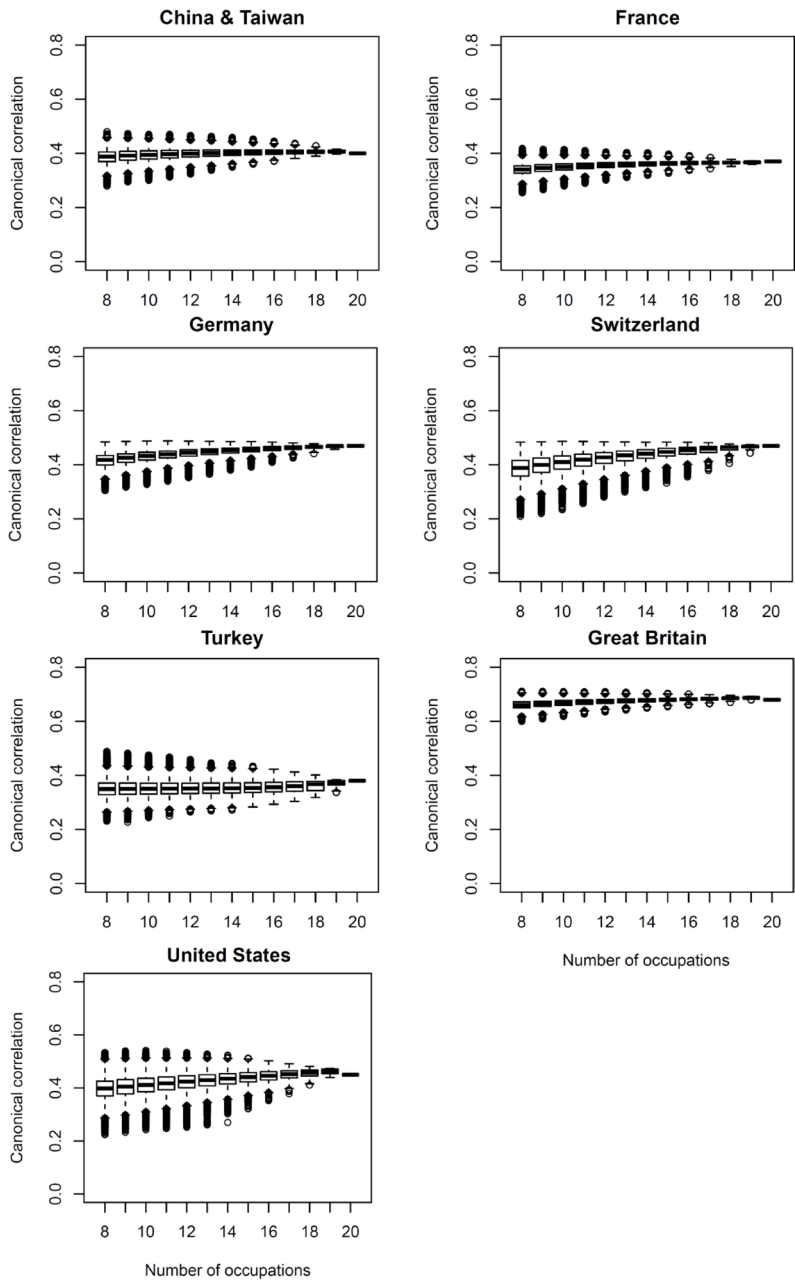
Figure 6.3 Boxplot of canonical correlations, all solutions, by country

movements, but this is also true in the common structure.

Is there a common solution in all the countries?

From the analyses presented so far it is difficult to argue for a specific number of occupations to include in a position generator. To be sure, each additional occupation adds a little more explanatory power but the increment becomes lower and lower. From a pragmatic point of view and given that the number of items that can be included in an ISSP module is strictly limited to 60, we propose to include 10 occupations for the position generator in the final questionnaire. The crucial question therefore is the choice of occupations to include.

Table 6.2   Sets of "best" occupations by countries[*]

CN/TW	FR	DE	CH	TR	GB	US	Pooled
journalist	journalist	journalist	journalist	journalist		journalist	journalist
librarian	librarian	librarian	librarian		librarian	librarian	librarian
teacher	teacher	teacher	teacher	teacher		teacher	teacher
big boss		big boss	big boss		big boss	big boss	big boss
	small boss	small boss	small boss	small boss	small boss		small boss
HR manager		HR manager	HR manager	HR manager	HR manager		HR manager
social worker	social worker	social worker	social worker	social worker			social worker
		lawyer	lawyer	lawyer	lawyer	lawyer	lawyer
farmer	farmer		farmer		farmer		farmer
		cleaner			cleaner	cleaner	
hairdresser	hairdresser					hairdresser	
	police officer		police officer	police officer			
	musician	musician		musician			
computer scientist						computer scientist	computer scientist
	foreman				foreman		
sales person				sales person			
			recep- tionist	recep- tionist			
			bus driver	bus driver			
		nurse					
						mechanic	

[*] The following occupations were included in the position generator: a. bus/lorry driver, b. boss of small enterprise/business; c. boss of big company; d. cleaner; e. computer scientist; f. farmer/agricultural worker; g. foreman; h. hairdresser; i. human resource manager/personnel manager: j. journalist; k. lawyer; l. librarian; m. mechanic; n. nurse; o. police officer; p. professional musician; q. salesperson; r. school teacher; s. social worker, t. receptionist.

To answer this question, we have first identified the optimal subset of 10 occupations in the pooled dataset. The canonical correlation of this set is 0.47. Again, the number of occupations referenced by a respondent is the best variable in the first set and social participation in the other. The occupations retained are: "boss of a small enterprise/business", "boss of a big company", "computer scientist", "farmer/agricultural worker", "human resource manager/personnel manager", "journalist"; "lawyer"; "librarian", "school teacher" and "social worker".

The optimal solution in the pooled dataset is not necessarily the ideal solution for every country, though we would expect a high degree of similarity between the cases. As can be seen from Table 6.2, the overlap between the country-specific ideal solutions is indeed high where at least half of the ideal occupational set in any given country is also included in the ideal set of the pooled dataset. The only occupation from the pooled set which does not show up so frequently in the country-specific sets is computer scientist. On the opposite end, occupations which are missing in the pooled set appear in a maximum of three country sets, mostly even less often.

But what would be lost if we adapted the same set of occupations in all countries? Once again we can compare the canonical correlation obtained with the common solution with the one from the optimal country-specific solutions. The result is presented in Table 6.3.

Table 6.3   Canonical correlations by countries

	CN/TW	FR	DE	CH	TR	GB	US	Pooled
20 occupations	.40	.37	.47	.47	.38	.68	.45	.44
Country-specific	.46	.38	.48	.48	.38	.68	.54	---
Pooled	.40	.38	.48	.48	.35	.65	.49	.45

Note: Country-specific refers to the country-specific 10 "best" occupations, Pooled to the list of 10 "best" occupations in the pooled data set, each given in Table 6.2.

In many countries both solutions with 10 occupations, country-specific or common for all countries, have the same explanatory power, or somewhat better, than the one with 20 occupations. Furthermore, in half of the countries we do not lose any explanatory power by adopting the common solution rather than the best country-specific one. The only cases where some loss is seen are the Chinese-speaking countries and the US. This might be the case because the sample size in these countries are rather small and sollutions might be less stable than for countries with larger samples.

In the drafting group the discussion of the final list of 10 occupations suggested for the ISSP module began with the list of 10 "best" occupations from the pooled sample (see Table 6.1). This list, however, is skewed in the direction of occupations with high socioeconomic status and also includes a number of occupations that are rare in many countries, e.g. farmers or librarians. Therefore, the decision was made to drop some of the high SES occupations and instead include more occupations with average socioeconomic status, e.g. police officer and nurse, and lower socio-

economic status, e.g. bus driver and cleaner. The list of occupations adopted for the final version of the ISSP 2017 module is:

A school teacher, a senior executive of large company, an HR manager, a lawyer, a home or office cleaner, a hairdresser/barber, a police officer, a bus or lorry driver, a nurse, a car mechanic (see Appendix B for complete questionnaire).

We reran the canonical correlation analysis also with this selection of occupations. The canonical correlation is 0.41, just a little lower than the canonical correlations of the complete list of 20 (0.44) and the "best" common list of 10 (0.45) occupations. The loadings of this analysis are given in Table 6.4. Again the left hand set, i.e. the social capital variables, are best represented by the maximum ISEI and the number of occupations in the network. Also the right hand side, i.e. the "outcome" variables, show almost identical loading with the result from the complete set given in Table 6.1 (none of the loadings differ by more than 0.04 points). In summary, the position generator based on the final list of occupations proposed for the module should perform equally well as the position generator used in this study with 20 occupations[46].

Table 6.4   Loadings canonical correlation, final list of 10 occupations, left and right sets

Left hand set	Loadings	Right hand set	Loadings
Maximum ISEI	.92	Integration positive	−.15
Minimum ISEI	−.44	Integration negative	.54
N occupations mentioned	.89	Inequalities	.17
Mean ISEI	.47	Social Benefits	.01
		Interpersonal Trust	.29
		Institutional Trust	.32
		Subjective Health	−.43
		Ill-being	−.02
		Well-being	.36
		Participation	−.78
		Empowerment	.43

6.4   A Measure of Social Capital

Once we have chosen a set, or subset, of occupations, we have to find the best measurement. It could be the canonical score but, following the tradition proposed by Nan Lin, we have chosen simply to use a principal component of the four indices: "Maximum ISEI", "Minimum ISEI", "N of occupations mentioned" and "Mean ISEI": maximum or minimum ISEI-score of occupations a person knows, the number of occupations mentioned as known in the position generator and the mean value of

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46   We obtain the same structure of loadings for the "best" subset of 10 occupations listed in Table 6.2.

the ISEI-scores of these occupations. The result of the PCA is given in Table 6.5. Here and throughout the rest of this publication we use the original data for the position generator based on 20 occupations.

Table 6.5   Definition of social capital as measured by the position generator

Variable	Loading
Maximum ISEI	.94
Mininimum ISEI	–.62
N of occupations mentioned	.91
Mean ISEI	.49
Explained variance	.59

It is important to mention that this principal component score is not optimised with respect to the dependent variables as is the case in the canonical correlation analysis. We aim at creating an indicator of social capital that could be used in any analysis, independently of the potential dependent variables considered. That is a strong justification for using this simple measure in the following chapters. However, one should note that the structure of the loadings in Table 6.1 and 6.5 are very similar.

Some characteristics of the position generator

There is a clear relation between this measure of social capital and position in the social structure. That means that this type of social resource will not be independent of the other forms of capital. We shall discuss this in more detail in the next part.

As with the other forms of capital, we can compare it by country. Higher values on average are observed in Switzerland, Turkey and China as well as in the US, but this could be linked to a mode effect: a smaller number of relations could be mentioned when answering a Web survey. Generally also, this type of capital is somewhat lower for women.

This score from principal components analysis, defining a robust measure of social capital, will be adopted in all subsequent chapters.
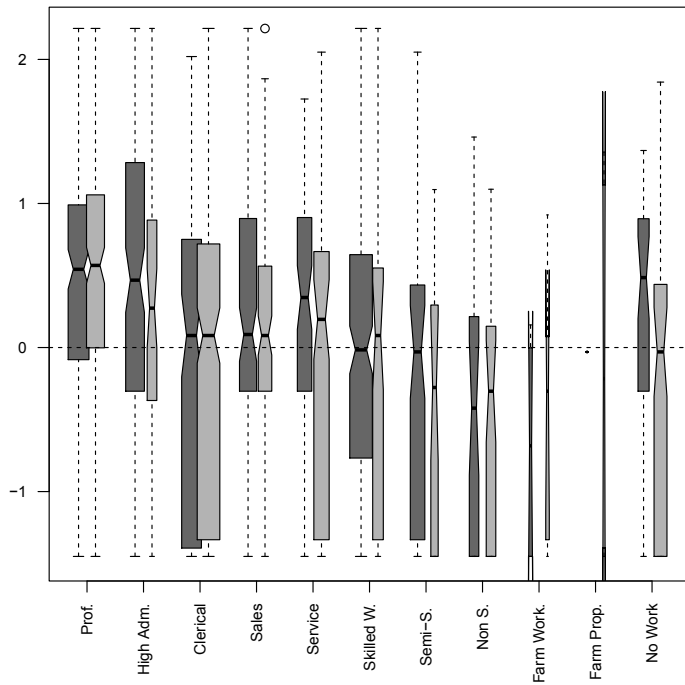
Figure 6.4   Social capital (position generator) by type of occupation and sex (male: black, female: grey)
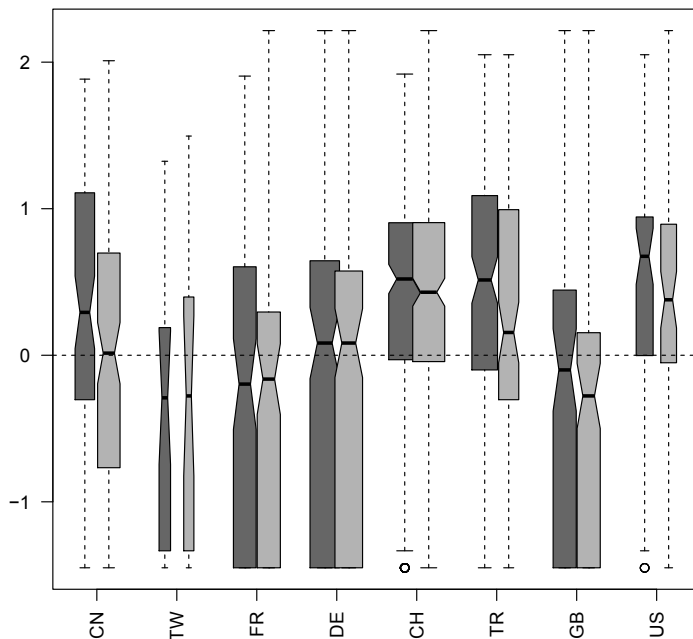
Figure 6.5   Social capital defined (position generator) by country

7 Resource Generator: A Comparative Measure of Network Support?

The resource generator is a tool measuring the support that persons can access through their social relationships. It has been argue that it produces better measures of social capital than the position generator because it is based on resources accessed rather than the hypothetical assistance from people that one knows. A detailed discussion of the pros and cons of such a measure in the field of health is presented by van der Gaag and Webber (2008) in a book interestingly dedicated to social capital and health (Kawachi et al. 2008). It is in this field that we can count the most numerous applications of the resource generator (e.g. Webber & Huxley 2007; Kobayashi et al. 2013). However, we do not want to take sides in this discussion but address this issue as an empirical question which we shall investigate.

7.1 Persons-based Resource Generator

As we have mentioned, the resource generator was formalised by van der Gaag and Snijders (2005) even if used already before, like in the ISSP 2001 for example in a slightly different format. An important element of the discussion is the kind of support which is involved. In the pretest questionnaire, we have used a set of 13 items to cover a large range of situations in which support may potentially be needed. There is nothing magical about the number 13. It seemed like a good compromise between on the one hand having enough resources to cover most of the potential needs of different people in different contexts, e.g. young as well as old, women as well as men. On the other hand, questionnaire length is limited and not too many items should be spent on measuring just one aspect of interest. The balance between completeness and brevity is even more complicated to achieve when we acknowledge that social support may be distinguished into different domains, notably:

- Practical support
- Informational support
- Emotional support.

The 13 items were chosen as four items for each of these dimensions and one additional, classical item: c) help you if you needed to borrow a large sum of money.[47] Many studies have mentioned this form of economic support as an important one. However, a first analysis has confirmed that this item was not correlated with the structure we were looking for and it was consequently not included in the analyses presented in this chapter.

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47 Item a was borrowed from ISSP 1986, Items b, c and i were included both in ISSP 1986 and ISSP 2001. The other items are new but mainly inspired from the Dutch SSND survey (Flap, Snijder, Völker & van der Gaag no date) and from the Connected Lives survey (Wellman et al. 2007).

Again we address the dimensionality of support as an empirical question which we shall address in a moment. Let us first recall the formulation of the survey question (as mentioned before the resource generator was included in two versions, Split A and B, here we only make use of the latter version).

Q24 (Split B) This section is about who you would turn to for help, if you needed it, in different situations. For each situation, please tick one box to say who you would turn to first for help. If there are several people you are equally likely to turn to, please tick the one who you feel closest to you.

Who would you turn to first to …

1 Immediate family

2 Other family member

3 Close friend

4 Neighbour

5 Someone I work with

6 Other friend or acquaintance

7 No one

8 Can't choose

a. help you for a household or a garden job that you can't do yourself

b. help you around the house if you were sick and had to stay in bed for a few days

c. help you if you needed to borrow a large sum of money

d. help you with finding a job

e. help you if you had problems with your computer that you cannot solve yourself

f. help you with finding a new place to live

g. help you look for information about a serious personal health issue

h. help you if you needed advice on administrative formalities and on other legal matters

i. be there if you felt a bit down or depressed and wanted to talk about it

j. give you advice on family problems

k. make you feel appreciated for who you really are

l. be there if you just wanted to talk about your day

m. look after you if you were seriously ill

When considering such a question, the way it is used depends not only on the items offered but also on the modality in which it is answered.

In the analysis of the battery, a first idea is to build indexes, either by domain (e.g. informational, practical, emotional support) or on the whole list. Most often such items will be built on a dichotomy: presence or absence of support. In the same line, van der Gaag and Snijders have used a modality of IRT known as Mokken scaling, which is also based on the dichotomisation of the variables.

Though such a procedure is technically correct it loses part of the information: to what extent is it the same to receive support from close family or from other acquaintances? And are these differences in the sources of support the same according to the domains? We therefore propose an analysis seeking to establish one dimension by domain but, at the same time, defining the best possible scaling of the answering categories. Although not very often used, this is precisely the task of the non-linear PCA proposed in the frame of the Gifi system for scaling non-metric data by statisticians like de Leeuw (Gifi 1991). More precisely, to establish a measure of social capital through a resource generator and discuss the pertinence of the items, we propose the following steps:[48]

- Do a non-linear principal component analysis (NLPCA) for each domain and discuss the position of the categories as proposed by the analysis;
- Use the factor scores of the NLPCA to test the pertinence of a higher dimension summarising the three domains of support;
- Test how far the structure of support is the same in the different countries using a multi-group confirmatory analysis.

7.2 Exploratory Analysis: The Structure of Each Domain

As a first step, we shall explore the structure of the assumed three dimensions of social support. Let us begin with practical support.

Practical support

A priori four items can refer to practical support.

Table 7.1 Loadings, Practical support (two solutions)

Item	Model 1 Loading	Model 2 Loading
Q24B a Household or garden job	.76	.78
Q24B b Ill and have to stay in bed	.84	.86
Q24B e Problems with computer	.50	
Q24B m If you were seriously ill	.79	.80

However, the factorial structure[49] shows that one item, referring to potential problems with a computer, do not fit the structure well (Model 1 in Table 7.1). We shall

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48 In the following analysis we combine categories "No one" and "Can't choose"; excluding "Can't choose" from the analysis does not change the substantive conclusions.

49 For non-linear principal component analysis, we used the R package homals (de Leeuw & Mair 2009).

therefore use only three items, in fact the most often used, referring to difficult work at home or situation of illness (cf. Model 2).

One of the interests of such a technique is also to see how the categories are transformed so as to have a linear relation; for the items used here this is presented in Figure 7.1. In the case of a household or garden job, the relation is monotonic, meaning that the strength of support decreases regularly from one group to the next. For example a colleague, Category 6, is probably not the first person to help in such a case. But in the case of health problems, it is interesting to see that colleagues can be of greater importance, more than neighbours for example.
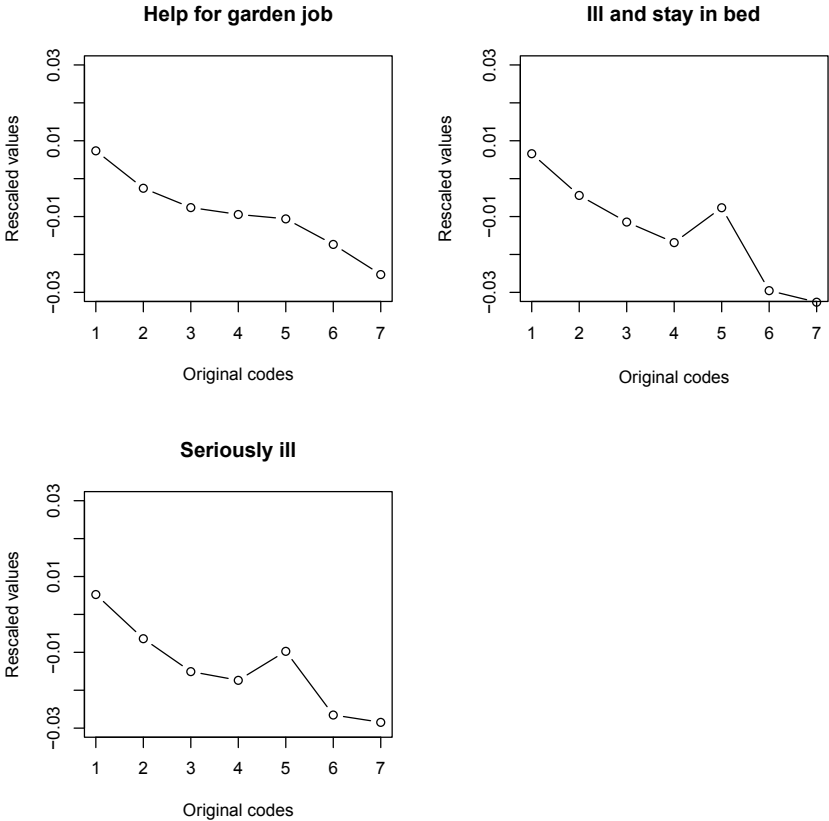
Figure 7.1   Rescaling of the items of practical support

Informational support

We can do the same, of course, with the four items describing informational support. In this case the four belong to the same dimension, meaning that we can keep them together in further analysis: all the loadings are greater than 0.7.

Table 7.2   Loadings, informational support

Item	Loading
Q24B d Find a job	.76
Q24B f Find a new place to live	.78
Q24B g Information on health issue	.74
Q24B h Advice on administrative matters	.76

The scaling is also interesting to describe in this case (see Figure 7.2).[50] Generally, the line is fairly horizontal until a break before the last category. That means that, for information, every source of support functions in the same way, the exception being not having anybody able to offer such a kind of support (Category 7). There is only one small deviation from this trend: neighbours (Category 4) are naturally less a source of support for finding a new place to live. In the same line neighbours are also not the first source of support for administrative matters.
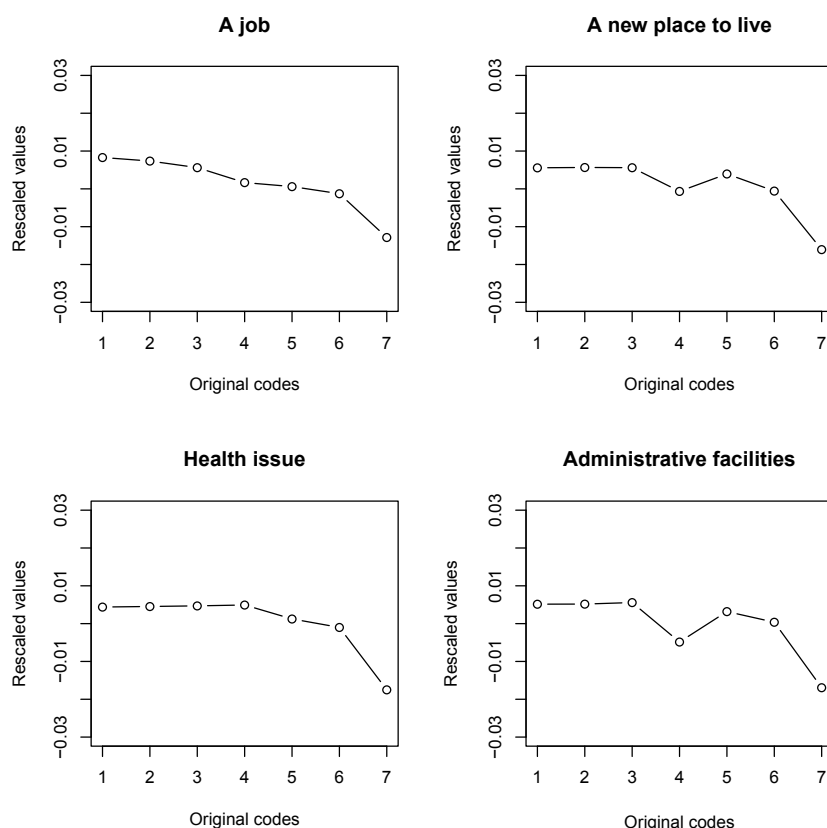
Figure 7.2   Rescaling of the items of informational support

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50   We have kept the same vertical scale for all the presentations in this chapter.

Emotional support

The four items measuring emotional support also form a one-dimensional measure, with very high loadings.[51]

Table 7.3   Loadings, emotional support

Item	Loading
Q24B i Depressed and wanted to talk about it	.80
Q24B j Family problems	.78
Q24B k Feel appreciated	.77
Q24B l Be there to talk	.77

In terms of scaling we observe a regular decrease, meaning that for emotional support there is really a difference between who is more important on such a dimension (see Figure 7.3). Two exceptions to this general trend, both very significant: on one side, neighbours are below the hypothetical line going from the greatest to the lowest support, meaning that for emotional support neighbours (Category 4) are not very important. In the same line of argumentation, friends (Category 3) seem more important for giving emotional support than family members outside the immediate family (Category 2).

The results so far are interesting and reassuring:

▪ We have a clear measure for each of the domains and only one item, referring to personal computers, does not fit in the measurement system.

▪ We can determine a linear transformation to know more about the relations between the sources of support. Such a transformation is different for each domain but less between items of the same domain.

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51 From a technical point of view, we compute the correlation between the scores and the rescaled variables, having then exactly the same type of coefficients as loadings in regular PCA.
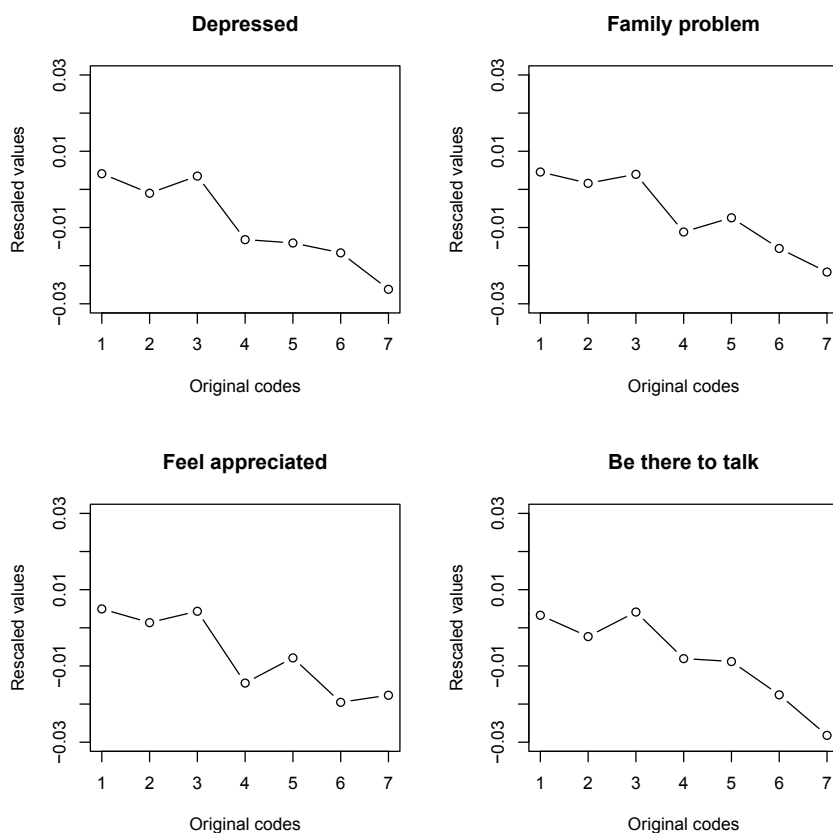
Figure 7.3   Rescaling of the items of emotional support

A second-order factor

While the analyses have shown a clear structure with three domains, we do not know the relation between them. In an exploratory perspective, it is easy to make a principal component analysis[52] of these three dimensions and to see how far they can be summarised by a single common dimension.

Table 7.4   Loadings, second-order factor

Type of support	Loading
Practical	.79
Informational	.79
Emotional	.85

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52   As the scores are produced after the transformation of the variables, we have no further problems of scaling in this part of the analysis.

The hypothesis of a single dimension summarising the three domains of support seems confirmed as the values of the loadings are high, nearly 0.8 in every case, meaning that at least two-thirds of the variance of the three scores is summarised with one second-order dimension.

Results so far

At this stage of the analysis, we can stress the following points:

- The three dimensions hypothesised – practical, informational and emotional – are correctly represented in the data.
- The possibility of rescaling the category is meaningful for the interpretation as well as convenient from the statistical point of view.
- Such a strategy is probably better than using dichotomies as basis of IRT or mokken scaling. Furthermore, such a technique partially alleviates the problem that nearly everybody appears to have a lot of resources.
- The scores for the different domains of support can be used in subsequent analysis but they can also be summarised by a unique second-order factor.

So far so good, but how stable are these results when considering a more confirmatory approach?

7.3 Confirmatory Analysis: The Stability of Dimensions

From a more inferential tradition, the following questions are important to consider:

- Is this second-order factor acceptable from a statistical point of view? In other words, using confirmatory factor analysis, is such a model able to summarise the data?
- Can we find the same structure in every country? Or in a multi-group strategy, which level of equivalence can be assessed?

Second-order factor

Using the package lavaan in R (Rosseel 2012), we tested the model presented in Figure 7.4.

According to the traditional criteria, this model has a good fit, with RMSEA = 0.065, SRMR = 0.036 and CFI = 0.951. That means that our measurement model can be accepted. In other words, social capital as defined by the resource generator can be summarised by three first-order factors and a second-order factor.

One question is still open: could such a model be accepted in all the countries or is the way the resource generator is working different from country to country?
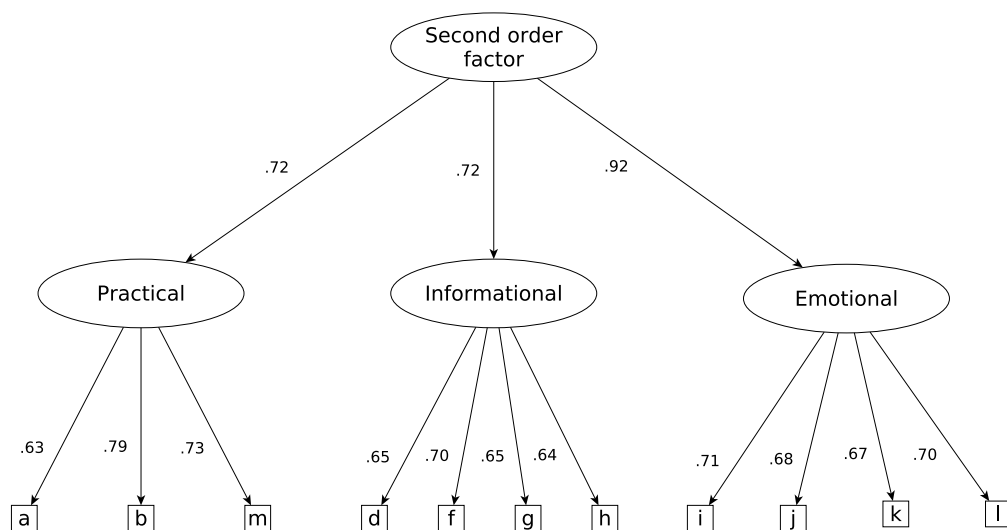
Figure 7.4   Second-order factor analysis of resource generator (Q24)

Invariance by country

The question of the invariance of the structure in each country is much more complicated to establish than the presence of a second-order factor as there are a number of different ways to assess it and the conditions in the different countries were also very variable, also in terms of modes and fieldwork. That means that any similarity that we find will be fairly robust.

For many reasons, the first one being the idea of keeping things as simple as possible, we propose two steps: first, to test the invariance of the first-order factors, and then to test the invariance of the second-order model.

Invariance of the first-order factors

The model to be tested in the different countries was, as a first model, simply the lower part of Figure 7.4 (meaning the three factors as explaining the set of 11 items).[53] In the tradition of multi-group analysis, four conditions of equivalence could be considered: from a vague similarity of configurations to the equality of all the parameters including the means of the latent variables.

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53   We use the "rescaled" value of the preceding analysis so as to consider these variables as intervals and not ordinals.

Table 7.5   Cross-national equivalence of three factor-model for social resources

	BIC	CFI	RMSEA
Configurational invariance	−148140	.92	.08
Metric invariance	−148395	.90	.08
Scalar invariance	−148523	.86	.09

The BIC value is lowest for scalare invariance, which would consequently be the model to adopt, at least if we accept BIC as fit index. If we instead turn to CFI and RMSEA these indices indicate that we can only assume metric invariance (i.e. identical loadings across countries) and have to reject the assumption of scalar invariance. Which of these conclusions we draw in the end is a matter of taste. However, we can be pretty sure that at least the assumption of metric invariance is warranted.

Invariance of the second-order factor

However, it is more important to test the "upper part" of the model as it will be the second-order factor that we want to use in the analysis. In the case, the variable was the first score of the alternative least square analysis (homals) of the three domains.

Table 7.6   Cross-national equivalence of common second-order factor for social resources

	BIC	CFI	RMSEA
Configurational invariance	−37158	1.00	.00
Metric invariance	−37232	.98	.07
Scalar invariance	−37279	.94	.10

According to the BIC value scalar invariance can be considered for the second-order factor. The fit indexes for this model are not brilliant but could be accepted with a CFI of 0.94 and an RMSEA at the 0.1 limit.

7.4   A Global Measure of Network Support

At this point, we can propose a measure of network support based on the resource generator: the second-order factor. Even if it can be broken into sub-dimensions, it represents a solid measure of this type of social capital which will be used in all the subsequent chapters of this publication.
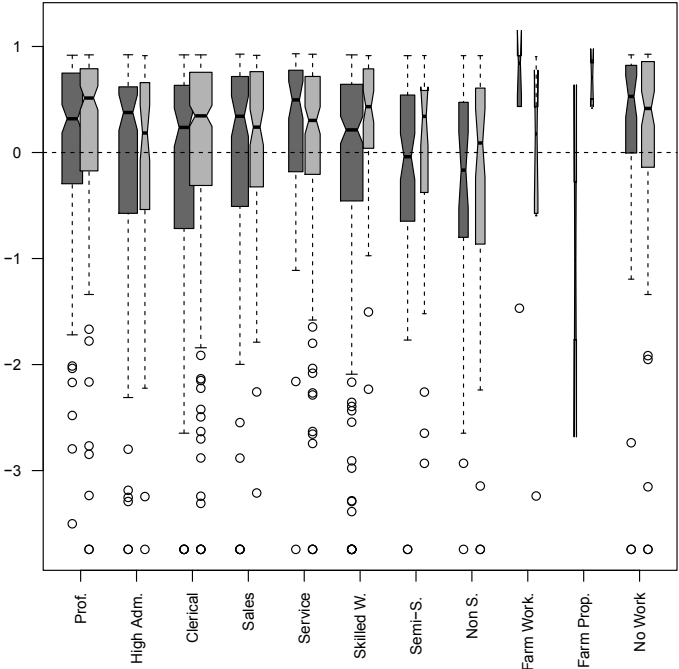
Figure 7.5   Network support by type of occupation (male: black; female: grey)
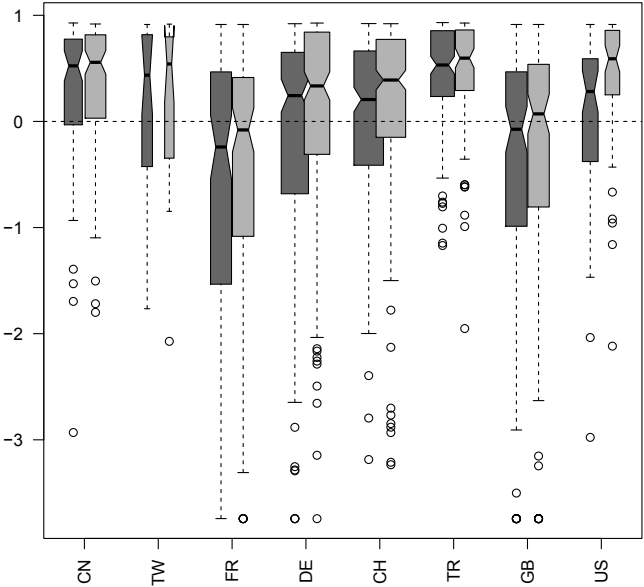
Figure 7.6   Network support by country (male: black; female: grey)

The distribution of this measure of network support is very skewed. The reason for this is that most people have some resources and only very few have no resources at all. This is very often the case with this type of generator but the literature has no simple solution for this (van der Gaag 2005).

As with the other forms of capital, it is possible to look at variation between types of occupations, showing very interestingly only small variations – the only exception being perhaps the non-skilled workers who have a lower score (Figure 7.5). In the same line, women mostly have a slightly higher score meaning that they can ensure this type of support more often than men. Overall this type of network support seems to be relatively independent of the occupation exercised. We shall discuss the relation between different forms of capital in more detail in the next chapter.

By country, the difference is more pronounced (see Figure 7.6): Turkey, China and Taiwan have higher values in the availability of social capital based on resources; by contrast, France and Great Britain have lower values. This result corresponds to the expectation of seeing more direct support outside the Western world. Reasons for this could be the higher degree of individualization characteristic for Western countries that makes traditional form of interpersonal support less frequent. In addition, the stronger establishment of the welfare state in the Western countries may also be a reason to see less direct support here as the state takes responsibilities in many areas. This argument will be discussed in more details in Chapter 10. However, Germany and Switzerland also show high values of social support from networks implying that the relation between welfare state and support is not so simple but perhaps reflects the distribution of other forms of social capital and investment of people in public life as well (Joye & Laurent 1997).

7.5   Conclusion

One of the goals of this chapter was to establish a measurement model for the type of resource generator and we succeeded in defining an indicator taking into account the characteristics of the response categories from the resource generator questions. The second-order factor we identified will be used as the measure for resource-based social capital in the next chapters.

It is important to stress that all countries seem to have the same structure of associations between the indicators of social capital, making it an interesting candidate for comparative analysis. In other words, the resources mobilised when considering this type of support seem rather similar, even in very different contexts. That means that the challenge of having a measure valid in term of comparative analysis seems to be met. In summary, in terms of the resource generator, as was the case for the position generator, an indicator common to every country can be considered.

Part III

Results

Introductory Remarks

It is time now to put together the elements carefully built in the preceding part. The challenge is to see whether, and to what extent, the different types of capital are related to the outcome variables defined so far. But we shall also address other questions linked to social relations and social exchanges and see how far they are related to social networks and social capital.

In short, three questions will be addressed in this part:

- First, what are the links between social capital and outcome variables: will we observe a stronger link of resource-oriented ones with personal disposition and the more vertical form of social capital linked to participation and empowerment? And how do these relations change, or not, according to the contexts?
- Social capital is also often measured through number of contacts and social ties in a close environment but how far is such a measure in line with the forms of social capital defined in the present perspective?
- We have stressed the contextual and institutional dimension. How far can we use another definition of access to social goods as a way to define the context?

In other words, we shall not only consider social capital as an individual resource but more in a perspective where the market or the state complements interpersonal forms of support.

8 The Interplay of Different Types of Capital with Selected Outcomes

All the chapters so far have aimed to define indicators and to acquire some knowledge about their properties. In particular, we have defined indicators of the different types of social capital as well as a set of test dimensions. In other words, we have built so far:

- Indicators of types of capital, in particular
  - Economic Capital
  - Cultural Capital
  - Social resources measured in two dimensions:
    - Social capital based on the position generator
    - Network support based on the resource generator
- Some outcome variables covering different aspects, from personal well-being to participation in the social and political systems, were also built. We have in particular mentioned:
  - Well-being and health
  - Perceived integration
  - Personal and institutional trust
  - Attitudes towards inequalities
  - Social and political participation

Based on all this, we shall answer three questions in this chapter:

- Which are the relations between the different types of capital?
- In a single explanatory model, which type of capital is the most important for explaining social attitudes and behaviours? In other words, what are the relations and the importance of each type of capital for explaining outcomes? Do we add something in the explanation by considering social capital?
- If we consider the possibility of conversion from one type of capital to the other, we also have to consider the interactions between the different forms of capital and not only an additive model as proposed by simple regression analysis. Thus, we ask what explanatory power do two-way and all higher order interactions of the different forms of capital have on the outcomes we study?

Of course, with cross-sectional data as we use it here it is impossible to decide if the correlations we observe result from causal processes. This is even more true when investigating relationships between social position and network characteristics because causation and selection will often be at work simultaneously here (cf. Lizardo 2006; Vaisey & Lizardo 2010). For example, the homophily typically observed in social ties will be the result of choosing a similar partner and of the partners growing more similar through a process of socialization.

8.1   The Relation Between Different Types of Capital

Economic and cultural capital are often represented as the most fundamental resources. Though they often are combined when analysing socio-economic position, they are explicitly differentiated in many other models: as mentioned in the first part of this report, it is rather common to consider more than one dimension when looking at social stratification. We just mention the famous analysis of Bourdieu (1979) in *La Distinction*, but such a multidimensional conception of social structure can also be found in Wright (1985), Erikson and Goldthorpe (1992), or Lorenzi-Cioldi and Joye (1988).

But how can the interrelations of these different types of capital be described? One way is to look at simple correlations as in Table 8.1. In this case, the highest correlation is between economic and cultural capital at a level of 0.29, indicating that it may not be wise to reduce these indicators to a single dimension, even if they are related in some way.

The same type of question can be asked about the relation between the different types of social capital as measured by the resource and position generators. On the one hand, we can expect that the correlation will be high, as both measures some form of social resources. On the other hand, they measure different aspects of social resources:

- It has been argued that resource generators refer to more concrete forms of support than an abstract quality "to know somebody". It is precisely for this reason that such a generator has been presented as a more valid measure of social capital.
- The position generator emphasizes the vertical dimension of the society, whereas the resource generator is agnostic about the social position of network persons.

As Table 8.1 indicates their correlation is not null but lower than might have been expected, at 0.26. Once again this means that these two dimensions measure different things; therefore the question of their respective value as explanatory variables will be of importance and will have to be established empirically.

A principal component analysis of these four types of capital shows four relatively independent components confirming that each type of capital has its own explanatory potential (see Figure 8.1). This relative independence does not, however, mean that every combination of capital has the same probability. Figure 8.2, based on the whole set of combinations, each type of capital being dichotomised around the median, shows clearly that there is an underlying logic – the extreme cases where no capital at all is present, or those where all forms of capital are there, are far more frequent than expected if these types of capital were distributed randomly: the horizontal line show the case of equal probability. In other words there is a cumulative logic which underlies the distribution: it is more frequent to have all resources or none than intermediate combinations.

Table 8.1   Correlation between types of capital by country

	E-C	E-P	E-R	C-P	C-R	P-R
All	.29	.21	.16	.24	.06	.26
China/Taiwan	.22	.23	.20	.43	.23	.16
France	.28	.20	.14	.26	.08	.24
Germany	.28	.20	.13	.31	.13	.18
Switzerland	.34	.21	.21	.39	.20	.32
Turkey	.34	.10	.12	.20	.09	.01
UK	.34	.27	.28	.26	.16	.32
US	.18	.39	.21	.16	.17	.03

Note: Types of Capital: E: Economic; C: Cultural; P: Position Generator; R: Resource Generator
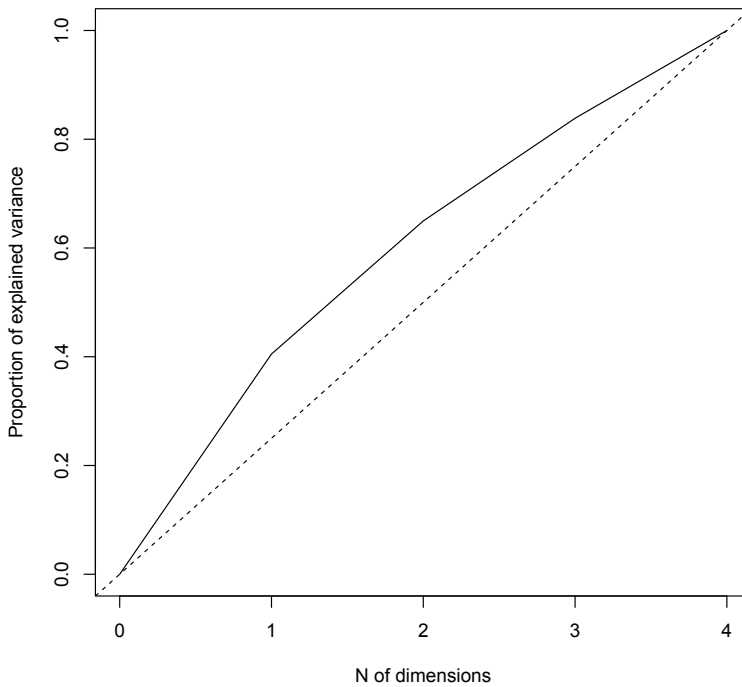
Figure 8.1   Proportion of variance by component, analysis of four types of capital
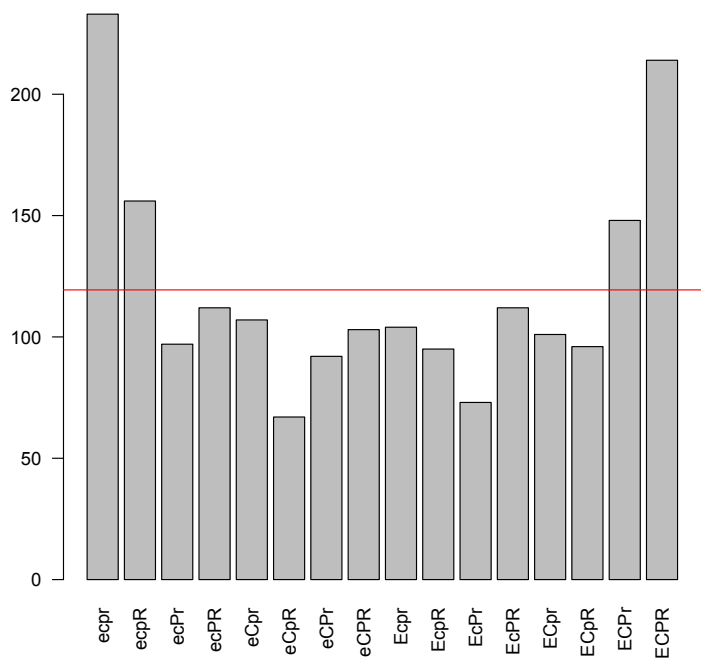
Note: Types of Capital: E: Economic; C: Cultural; P: Position Generator; R: Resource Generator

Figure 8.2   Distribution of different types of capital and their combination (lower case letter: capital less than median; capital letter: capital above median; red line indicates equal distribution over dichotomized cross-classified capital variables)

These results indicate that we shall not only have to consider the effects of the different types of capital in a linear additive way but also consider the potential interactions between them. This is in line with theory. Remember that Bourdieu (1986) speaks about the combination of types of capital or Lin (2008) mentions that the use of a capital is a function of social position. We shall come back to this discussion later in this chapter. But first, in how far can we observe similar patterns in the different countries? Does the structure of correlations between forms of capital differ between the countries in our sample? Do we find indications for the hypothesis of a universal structure of social cultural and economic capital or are there specific configurations in some countries, for example, the role of social capital as *guanxi* in Chinese societies (Bian 2001, 2008).

Overall Table 8.1 shows a similar pattern in all countries. If we look into details, a somewhat larger correlation between position generator and cultural capital in the Chinese world, but also in Switzerland maybe worth mentioning as well as the absence of correlation between cultural capital and resource generator in Turkey and France. Without going too much into detail in the specificities of the countries, this shows at least:

- In some contexts, the position generator reflects the vertical structuring of the society, but it seems in this case to be more related to the cultural dimension than to the economic one.
- As hypothesised, the resource generator has a horizontal dimension making it independent from other forms of social resources.
- While there are some differences between countries, there is not a simple opposition between Eastern and Western societies but a more complex pattern, Switzerland and China being relatively similar on this criterion as well as, in another direction, France and Turkey.

We will address these points later in this chapter and in Chapter 10. For now let us explore another facet of the interplay of capitals and outcomes.

8.2   The Explanatory Power of Social Capital

All countries together

The first idea is just to compare the effect sizes these different forms of capital have on selected outcome variables. The results are summarised with a graphical representation of the standardized regression coefficients, including the control variables age and sex (see Figure 8.3). We have also added one more piece of information – the total R^2 – but also the change in R^2 when the four types of capital are entered in addition to the control variables. This is the most useful information if we want to assess the relative importance of the capital types in the explanation of the outcome variables.

The results show that the picture varies greatly for the different items: *Empowerment* is linked to most forms of capital while some others are linked mostly to a single form of capital: for example, economic capital for *Subjective Health* as well as *Loneliness*, position generator for *Participation*, or resource generator for *Intrinsic reciprocity*.

- For well-being and quality-of-life issues, economic capital is important to consider.
- Economic capital is of importance for health but also for interpersonal trust while cultural capital lowers institutional trust.
- The vertical dimension as represented by the position generator is of great importance for predicting participation.

Can we say that one type of capital is more important than another? On the set of domains that we are investigating here, we cannot conclude in this way. While it is true that economic capital is very often an important explanatory factor, this is not always the case. On the other side, while cultural capital plays a minor role in some cases, it is very important for predicting social participation, for example.

It is more or less the same for the two measures of social capital. The resource generator-based measure is clearly linked to social integration among others, while

the measure based on the position generator is related to the perception of inequalities or reciprocity.
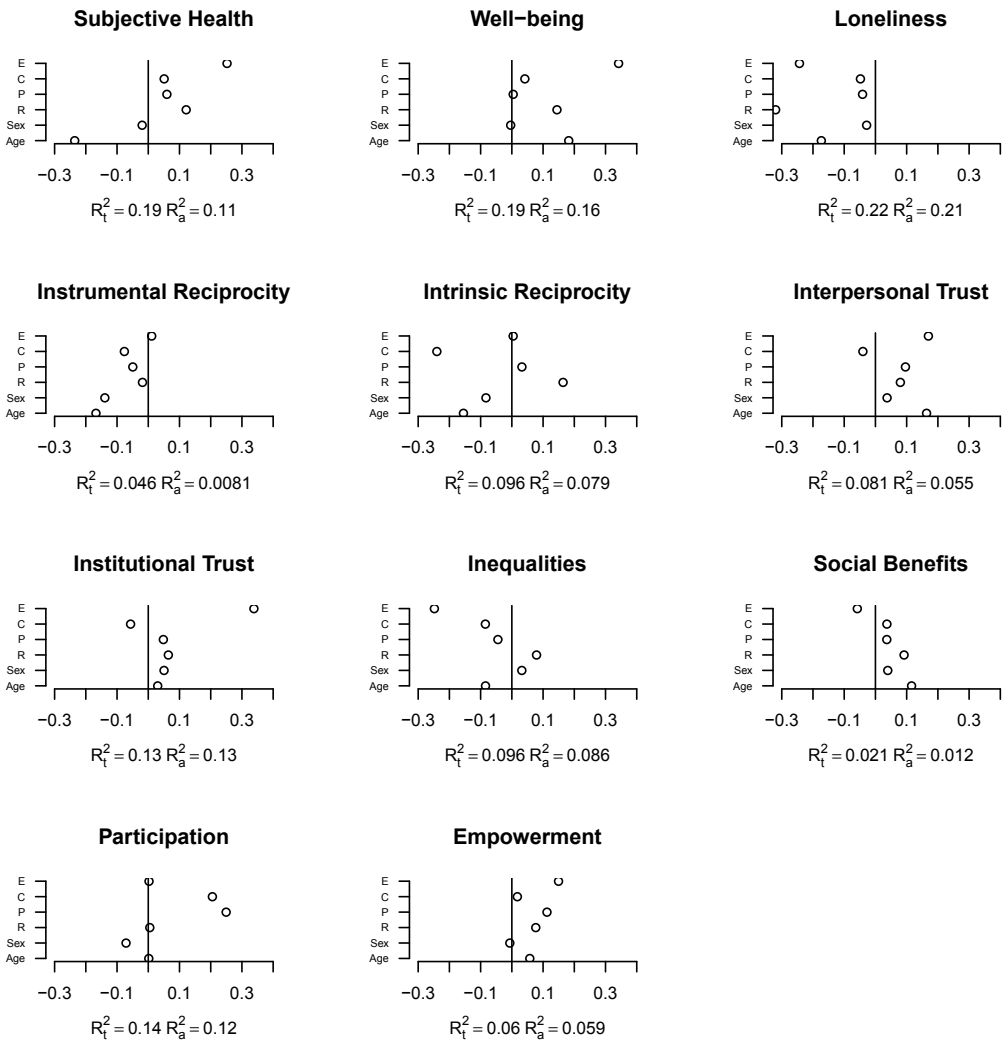
Figure 8.3   Standardized regression coefficients (E: Economic capital; C: Cultural capital; P: Position generator-based; R: Resource generator-based)

To summarise: R² are of importance, with values of roughly 10% of the variance or more in the majority of cases. By comparison to many explicative models published in the literature, these values are high.

From these results it seems that the idea of different types of social capital is really interesting to follow. This is in line with Savage et al. (2015, see also Savage et al. 2013) who stress the value of the position generator. But this is in line also with the work done for example by van der Gaag and Webber (2008) referring to the resource gener-

ator. In the end we might have to use different measures of social capital depending on the instrumental and affective outcomes and for covering the complete spectrum of resources accessible through social relationships. Following this perspective of measuring different types of social capital by both position and resource generators is also in line with the schema of Häuberer (2011) which we presented at the end of Chapter 2. For the length of a questionnaire on social networks and social resources this is not good news. Depending on the phenomenon studied different indicators of resources have to be used. Our results also show that the social position to other members of the network is an important variable playing a role in addition of other forms of capital. That means that we also have to take into account the vertical dimension of the society when speaking about social capital.

By country

One important question is whether the same models are valid for every country or whether the combination of different types of capital also depends on the national context. A common strategy for testing this kind of proposition is a multilevel model. Nevertheless, we have to be very careful when interpreting such models as they are much more suitable when the units of level 2 are more numerous – 20 is often seen as a minimum – and are at best also randomly selected from a larger universe. At the same time, we shall use this tool much more as an exploratory procedure and give special attention to the BIC values, which we consider to be a good compromise between model fit and parsimony.

To test this, we have considered different multilevel models, with three general cases:

- The null model with only the effect of the country; i.e. a random intercept only model. We call this model M_1.
- In our second model we introduce the four variables representing the different types of capital as level 1 variables with a fixed slope. This model will be called M_2. In such a model, the impact of the different forms of capital is taken into consideration, while controlling by age and sex, but the effect is assumed to be uniform across countries.
- A model where, in addition, we allow the slope to vary according to one explanatory variable at a time. In other words, can we expect a better model if the effects of a particular type of capital varies? Before looking at more complex combinations, we shall test one type of capital after another as proposed by Snijders and Bosker (2012: 60). More precisely:
  - Model M_{31} has a random slope for economic capital;
  - Model M_{32} has a random slope for cultural capital;
  - Model M_{33} has a random slope for the social capital measure based on the position generator;
  - Model M_{34} has a random slope for network support based on the resource generator.

Table 8.2   ICC intercept-only model by country

	ICC
Subjective Health	.02
Well-being	.12
Loneliness	.11
Instrumental Reciprocity	.07
Intrinsic Reciprocity	.22
Interpersonal Trust	.08
Institutional Trust	.11
Inequalities	.11
Social Benefits	.10
Participation	.04
Empowerment	.08

Let us begin with the variance explained by country in the null model (Table 8.2). There are strong differences between the outcome variables, but mainly most of the variance is at the individual level. Note the very low values for *Subjective Health* (ICC = 0.02), but also for *Participation* (0.04); medium values are observed for *Social Benefits* (0.10), *Institutional Trust* (0.11) or *Well-being* (0.12) as well as *Loneliness* (0.11) or *Inequalities* (0.11). Only one variable shows clearly a much higher relation to national context: *Intrinsic Reciprocity* (0.22). This could be understood if we think that the norm to take care of parents, for example, is probably expressed in many different ways in the different countries.

However, we are interested in combining more complex models, at least if the increase in information is greater than the increase in complexity. The BIC index is a measure in this direction, balancing fit and the number of parameters, where the model with the lowest value of BIC provides the best trade-off between a parsimony and complexity. Table 8.3 gives BIC values for all models where the last column of this table refers to the model having the lowest BIC value. For example, in the case of Health, Model M_2 has the lowest BIC and could thus be considered the best model.

There are only two cases in which the simplest model, M_1, is proposed according to the BIC value: *Instrumental Reciprocity* or the idea that most social relations are in the form of "give and take" and the idea of "*Social Benefits*" as a cause of laziness. The R^2 values for these variables were already very low in Figure 8.3, reinforcing the idea that the different forms of capital are not linked to these outcomes. A different impact of cultural capital, Model M_{32}, is also observed in two cases: for *Institutional Trust* and for the factor relative to political *Empowerment*. In these two cases, the impact of cultural capital plays a role but differently according to the countries. In one case, the position generator has a varying effect, and this is for social participation, which is in line with the hypothesis of Nan Lin (2008). In more than half of the cases, the impact of the different types of capital does not vary by country: this is

true for *Loneliness*, *Subjective Health* as well as *Instrumental Reciprocity*. In summary, there are more cases in which we can consider fixed slopes rather than varying ones, implying that countries seem far more similar in this regard than we might have expected.

Table 8.3   BIC in multilevel models

	M_1	M_2	M_{31}	M_{32}	M_{33}	M_{34}	Best
Subjective Health	5622	5358	5370	5373	5373	5373	M_2
Well-being	5203	4927	4941	4940	4938	4941	M_2
Loneliness	5210	4890	4902	4900	4903	4902	M_2
Instrumental Reciprocity	5361	5390	5405	5398	5384	5394	M_1
Intrinsic Reciprocity	5027	5018	5030	5033	5033	5020	M_2
Interpersonal Trust	5276	5235	5243	5250	5250	5242	M_2
Institutional Trust	5247	5085	5092	5084	5096	5100	M_{32}
Inequalities	5279	5184	5189	5192	5191	5192	M_2
Social Benefits	5265	5282	5287	5292	5294	5295	M_1
Participation	5402	5159	5168	5155	5150	5157	M_{33}
Empowerment	5326	5248	5258	5242	5253	5261	M_{32}

This relative similarity of effects of capital indicators across countries does not tell us if there are interactions between the different forms of capital.

8.3   Interactions Between Forms of Capital

According to Lin's theory (2001), we can expect an interaction between social capital, as measured by the position generator, and social position. For example, we can expect that the effect of high values of social capital as measured by the position generator is not the same if you have higher or lower cultural or economic capital. By contrast, we can expect that social capital based on the resource generator, i.e. based on simple forms of support in daily life, is less dependent on social position. In the same line, we can expect that socially engaged actions, such as social participation for example, are much more embedded in a web of social relations and should thus be affected far more by the interactions of different social determinants than variables referring to personal states, such as health.

Table 8.4   Testing for interactions of capital measures

Part A	Health	Well-Being	Loneliness	Instrumental Reciprocity	Intrinsic Reciprocity
Intercept	*	*	*	*	*
Economic C.	*	*	*		
Cultural C.			*	*	*
Position G.	*		*	*	
Resource G.	*	*	*		*
Sex				*	*
Age	*	*	*	*	*
E * C				*	
E * P		*			
C * P		*	*		
E * R					
C * R	*				*
P * R		*			*
E*C*P					
E*C*R	*				
E*P*R				*	
C*P*R	*				
E*C*P*R					

Part B	Personal Trust	Institutional Trust	Inequalities	Social Benefits	Partici-pation	Empower-ment
Intercept	*	*		*	*	
Economic C.	*	*	*			*
Cultural C.		*	*		*	
Position G.	*	*	*	*	*	*
Resource G.	*	*	*	*		*
Sex					*	
Age	*		*	*		*
E * C						
E * P				*		
C * P		*		*		*
E * R						
C * R			*			
P * R			*	*		
E*C*P						
E*C*R					*	
E*P*R				*		
C*P*R						
E*C*P*R						*

* Indicates statistically significant coefficient at the .05 level.

To test this, we have built a model for each of the eleven "outcome variables", including all possible interactions between the different forms of capital. The results show less significant interactions than significant coefficients in the simple additive part of the model (see Table 8.4). Nevertheless, some observations on these relations:

- Of the possible 66 two-way interactions only 15 are statistically significant.
- Social capital based on the position generator shows up in 11 of the 15 significant two-way interactions; cultural capital nine times and network support as measured by the resource generator seven times.
- Of the possible 44 three-way interactions only five are statistically significant as well as only one of the possible 11 four-ways interactions.
- There does not seem to be a clear pattern of interaction terms concerning the outcome variables investigated here. The only exception could be Personal Trust which is not affected by any of the tested interaction terms.

These results are in line with the theory postulating that the position generator is the form of capital most prone to see interactions: according to Lin's theory having a wide range of relations has different effects for persons at the top as compared to persons at the bottom of the social hierarchy. By contrast network support, i.e. having people ready to help in daily life, could be more independent of other types of capital. However, if we look at the "added value" of introducing interactions, comparing the explained variance of models with and without interactions, it appears that the impact is generally low, between 0 and 1% of explained variance. Two exceptions to this: "Social Benefits" and "Empowerment" (see Table 8.5).

Table 8.5 R^2, additive and interactions models

Label	Additive	Interactions
Subjective Health	.19	.19
Well-being	.19	.20
Loneliness	.22	.23
Instrumental Reciprocity	.05	.06
Intrinsic Reciprocity	.10	.11
Interpersonal Trust	.08	.09
Institutional Trust	.13	.14
Inequalities	.10	.11
Social Benefits	.02	.05
Participation	.14	.14
Empowerment	.06	.08

The question is not only the presence of an interaction but also its direction. Looking at the detailed results of the model predicting *Empowerment*, the interaction between

cultural capital and position generator-based social capital goes in the right direction, reinforcing the relation.

8.4   Conclusions

Before being too affirmative, we have to recall that our analysis is based on country data of different quality. Furthermore, no particular weighting was used, meaning that we have to be cautious as regards the interpretation. Nevertheless, the whole set of results seems to validate the empirical construction made in the preceding part. Moreover, the different measures seem relatively robust in the different countries. That means that, from a methodological point of view, the challenge of comparative measurement of the impact of social capital was met.

We did not aim to explain on a couple of pages topics that are very different but important for sociological theory as well as for the daily lives of our respondents. The perspective was rather to show that the forms of capital considered here were empirically pertinent. In this sense, the demonstration so far is necessarily somewhat abstract but there is space for the sociologist to "put flesh on the bones". Two elements are perhaps important to underline in the perspective that we have chosen.

- The resource generator is primarily important when we consider "Connectedness" or the different measures of health, as well as when considering norms like intrinsic reciprocity – in other words, aspects impacting the quality of daily life.
- The position generator is, logically, much more important when considering social behaviour as beginning with socio-political activity or empowerment.

Our results, though tentative, are in line with the literature where, without detailed justification, a resource generator is often used in the field of health and well-being. By contrast, the vertical dimension of the position generator reintroduces the aspect of social inequality which is so important when looking at participation and power.[54]

The literature, starting with the thesis of van der Gaag (2005), sometimes gives the impression of search for the "best" and "most robust" indicators, particularly in the context of comparative research. Our results so far show that they are complementary but also both meaningful in a comparative context.

There has also been discussion on the comparative value of the results in different countries. In summary it can be argued that if there are differences between countries, these are gradual and do not indicate totally different structures. In other words, we see different values of our indicators in the countries, higher in some, lower in others, but when looking at explanation, most often it is the same model that is pertinent. This is a strong indication of the comparative character of the indicators developed, as measures of outcomes as well as measures of capitals. In other words, we observe the same type of influence of social resources in the different countries, with only the level varying as a function of the context.

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54   See also for this topic the work of Li et al. (2008) linking social capital and social mobility.

Before concluding on this complementarity and pertinence in different contexts, it seems useful to investigate how these measures are situated with reference to other ways of measuring social ties and other ways of looking at the national context. This is the topic of the next two chapters.

9 Social Capital and Personal Relations

The analysis so far was dedicated to the measurement of social resources and the relation between these resources and a diverse set of outcomes. The rationale behind our analysis was developed in the first chapter. When speaking about social networks, it is important to contrast the approach based on the concept of social capital to the ones that emphasizing the characteristics of the people of which networks consist. The literature devoted to social networks heavily discusses frequency of interactions as well as types of relationships, such as family relations, as important dimensions (Fu 2014).

A slightly different line of research is also important to mention in this context, rethinking the distinction between "strong ties" or the people who are close to the respondent, starting with family and friends, in contrast to "weak ties", with people less closely related to the respondent but able to extend considerably the value of the network. We shall not enter here into the discussion about bridging and bonding forms of social capital, nor on "the strength of weak ties" (Granovetter 1973), but an exploration of the daily interactions and an inventory of this kind of network are important for two reasons at least:

- Until now, we have not strictly analysed the distance from the person giving support even if it was implicitly considered in the analysis: in the position generator we have only counted the occupations present in the near circle (family and close friends) while in the resource generator we have used the possibility of linearisation allowed by the alternative scaling technique that we have chosen.
- In the previous edition of the ISSP module an "inventory" of personal relations and contact frequency with family members and friends was a topic widely used in publications. In our theoretical model the set of network members and contact frequency plays a crucial role in the "structure of opportunity to access and mobilize social resources" (see Figure 3.2). This topic was also voted a priority by the ISSP General Assembly during the preparation of the module.

Let us just quickly sketch the landscape of the network of personal relations and the way it is linked to social capital as measured here.

9.1 Measures

As in other chapters, we first present the questions used in the exploratory survey and their history, before we describe how they will be used and possibly simplified for the analysis. The challenge is to create an inventory of contacts with family members, friends and other acquaintances as well as an idea of the number of persons available in the near circle of the respondent. Additionally, the measurement should be at least partly comparable to the data from the previous ISSP module on social networks from 2001.

Questions in the survey

When the measures of social support from family and friends are approached by a resource generator, it is important to know about the structure of opportunity/availability for support in family and friendship networks. Is the lack of social capital related to the absence of friends or family members or is it because some support systems are obtained through more institutionalised means? In the literature, the question of the availability of social resources and support is approached either by items on the composition/size of networks or by the frequency of contact with one's personal community.

To measure the structure of opportunity to access and mobilise personal relations through contact frequency, we propose the inclusion of six items in the questionnaire: one question on general contact frequency (Q35, as in ISSP2006, ISSP2014, and the East Asian Barometer Survey), asking about the number of people with whom one has contact on a typical day, either face-to-face, by phone, or on the Internet. Unlike the position or resource generators and survey items that tap into individuals' connections with others in terms of relationship or acquaintanceship, social-interacting measures pay more attention to the actions or contacts that actually take place (Fu 2005). The five specific items were drafted to be very similar to those previously asked in 2001 focusing on most frequently contacted members of their personal networks, namely parents (Q18), siblings (Q19), adult children (Q20), other adult family members, and close friends. This last series of items focuses on the most frequently contacted person, instead of an average measure among people from the category. The choice of taking over these questions will allow some comparisons with the previous module of 2001. As the socio-technological change, starting with the growing importance of social media, has modified the way people interact with one another today, all these items on contact frequency with specific persons have been modified to consider not only face-to-face contacts, but all contacts, including those made through the Internet.

Q34: The following questions are about occasions when you go out to eat or drink with three or more friends or acquaintances who are not family members. [...] How often....

    a. *... do you go out to eat or drink with three or more friends or acquaintances who are not family members?*

    b. *... do you make new friends or acquaintances at these occasions?*

Q35: On average, how many people do you have contact with in a typical day, including anyone you chat or talk to, face-to-face, by phone, or on the Internet, and whether you know the person or not?

Q37. Are your parents still alive?

Q38. How many adult family members and close friends do you have? Please count only adult family members and close friends who are still alive and who do not live with you.

    a. Brother(s) and sister(s)

    b. Children who are aged 18 and older and do not live with me

    c. Other family members

    d. Close friends

Q40. How often do you see or visit your parents?

Q41. How often do you see or visit your brothers and sisters? Please answer for the brother or the sister you see or visit most frequently.

Q42. How often do you see or visit your children who are 18 or older and do not live with you? Please answer for the child you see or visit most frequently.

Q43. How often do you see or visit other family members who are aged 18 or older and who do not live with you? Please answer for the family member you see or visit most frequently.

Q44. How often do you see or visit your close friends? Please answer for the close friend you see or visit most frequently.

From these items we create several measures. First, we consider the joint number of children, siblings and parents.[55] In the same line frequency of contacts is combined to distinguish between contacts with family members,[56] contacts with extended family and contacts with close friends. With this inventory of family members and friends and the frequency of contact with them, more general questions about socia-

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55   *Size of immediate family*, number of person in the close family, is built by counting presence of parents (Q37) as well as that of siblings (Q38a) and children no longer living with the respondent (Q38b). *Size of extended family* is the number of other family members (Q38c) and *Number of close friends* is based on Q38d. By combining parents and children we hope to counter a possible age effect in the number of close family members: if the respondents are old, their parents will probably not be alive anymore while younger respondents will have a lower probability of having children.

56   *Visit to immediate relatives* is the largest number of visits to parents (Q40), siblings (Q41) and children (Q42). As in Q43 and Q44, highest code means least frequent visits. In the table 9.1 we have inverted the scale in order to have the reading in a more natural direction.

bility have been introduced. The challenge now is to find an appropriate measurement model.

Dimensions for analysis

Of course, we expect that behind these 13 items a simpler structure will appear. According to the theoretical dimensions as well as the variables considered, we can expect to see differences between the inner circle of close friends and family members on one side and a sparser network of relations where sociability is the key word on the other side. But according to the literature, another distinction could be considered, between the number of relations, or the *Volume* and the intensity or *Frequency* of contacts.

Crossing these two distinctions can lead to a maximum of four dimensions. A principal component will be, once again, a mean to explore empirically the number of dimensions needed.[57]

Table 9.1　Principal component analysis, family, friends and contacts

	F1	F2	F3	Communality
Eat or drink with friends (Q34a)	.84	.01	−.04	.70
Make new friends (Q34b)	.79	−.02	−.09	.64
How many contacts Q35	.44	.28	.03	.27
Number close family (Q37, Q38a, Q38b)	−.04	.49	−.31	.34
Number extended family (Q38c)	−.00	.86	−.05	.74
Number close friends (Q38d)	.42	.68	.05	.64
Contact with immediate relatives (Q40, Q41, Q42)	.09	.03	−.80	.65
Contacts with extended family (Q43)	.13	.11	−.79	.65
Contacts with close friends (Q44)	.62	.09	−.21	.44
Explained variance	.23	.17	.16	.56

In fact, three factors summarise more than half of the variance (see Table 9.1). We can describe these three dimensions in accordance with the theoretical lines as follow:

- The first component combines the two items on sociability as well as the frequency of visits with friends – we call it *Sociability with friends*;
- The second component represents the *number of* close and extended family members as well as close friends – we call it *Network Volume*;

57　*Size of immediate family*, number of person in the immediate family, is built by counting presence of parents (Q37) as well as that of siblings (Q38a) and children no longer living with the respondent (Q38b). *Size of extended family* is the number of other family members (Q38c) and *Number of close friends* is based on Q38d.

- The third component stands for the *Sociability with family* with close and extended family members – we call it *Contact Frequency*. This last component goes in the reverse order, meaning a negative value means higher frequency.

In summary, one dimension looks at friends and sociability and the other at family and close friends, disentangling the size on one side and the frequency of visits on the other side. It is interesting that we do not see a grouping according to strong or weak ties *stricto sensu*, as it could have been expected from the literature. The next challenge is to see some characteristics of these dimensions.

9.2   Contacts in Contexts

As a first exploration, in the same line followed in the other chapters about different types of capital, it is possible to contrast these measures by country and social position. Both are *a priori* good indicators, one because we expect that social resources are distributed according to social position and the other because the idea of a different network of relations by countries is a widely shared belief by people in general and social scientists in particular.

For *Sociability with friends*, the effect of the country seems relatively small: the differences are even larger between European countries than between Europe and countries from other continents. By contrast, the differences according the social position are more important, the highest sociability is observed for the higher administrative positions the lowest for the non-qualified occupations and the respondents outside the professional life.

For the *Volume of contacts*, the picture is rather different: except for the people outside the professional life, the differences according social position are low. By contrast, the differences between countries are more important, the highest being in China or Taiwan, the lowest in Europe, particularly in the countries were the survey was an internet one.

When looking at the *Sociability with family*, keeping in mind that lower values mean higher sociability, farmers and people not in the labour force, in the statistical sense, have higher frequencies of contacts. The differences between countries are therefore in the expected direction with Turkey and Taiwan where the socialbility within the family lies above the median (note this factor is reversely coded).

The main interest of this analysis is to show that the situation is different according each dimension: more sociologically determined for sociability, more dependent of the geographical context when discussing the volume of the network. Once again this is a confirmation that social networks are of course important for living in society but also complex: part of their importance is linked to the social position while other aspects are more linked to geographical context, to begin with the part which is linked to family. All this does not answer the questions how personal relations and the different forms of social capital are related to each other. This will be the point in the next paragraph.

Sociability with friends

Sociability with friends

Network Volume

Network Volume

Sociability with family members

Sociability with family members
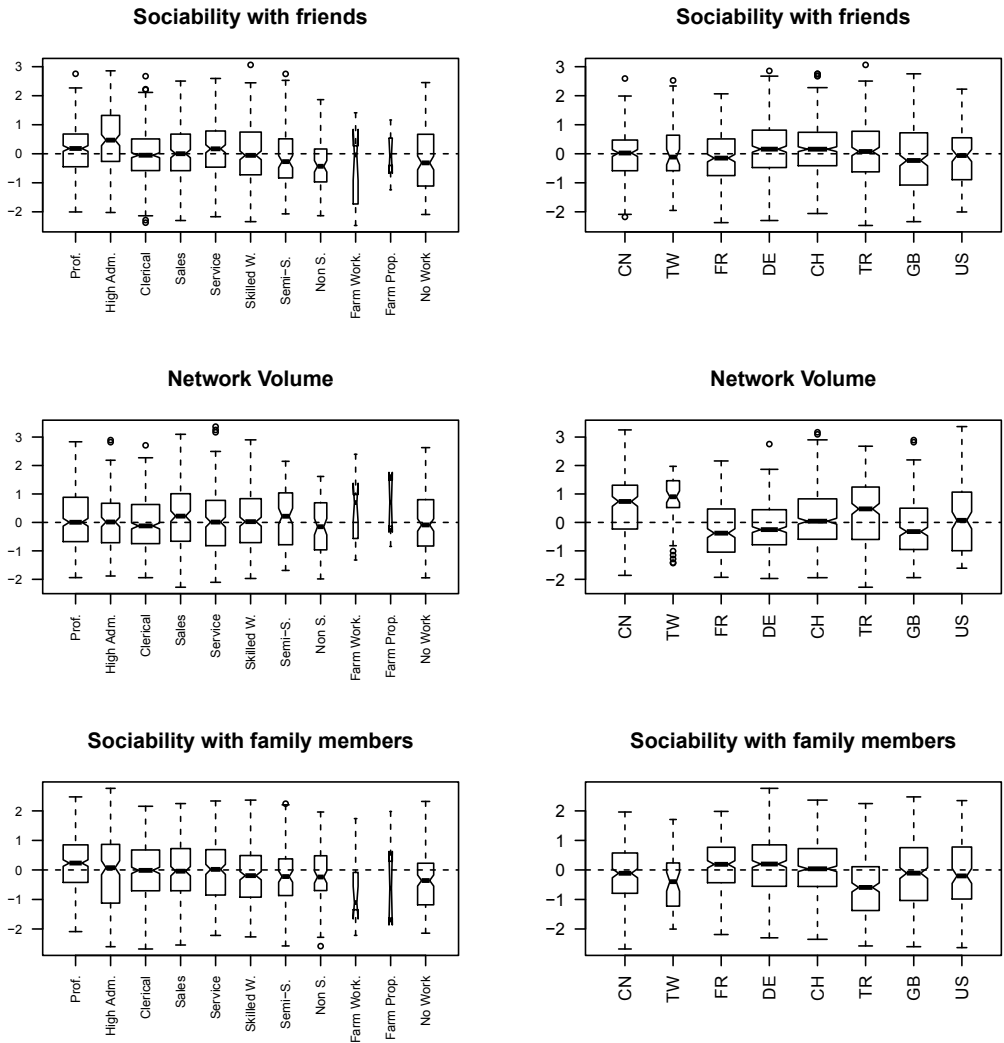
Figure 9.1   Three components by social position and country

9.3   Social Exchanges and Social Capital

We were interested in the potential link between types of capital – economic, cultural, social capital based on position and network resources, respectively, and the three factors defined in this chapter – sociability, network volume and contact frequency. The structure of relations can be summarised in three lines:

Table 9.2   Correlations between capital and exchanges

	Economic	Cultural	Position	Resource
Sociability with friends	.27	.27	.30	.21
Network volume	.02	−.06	.18	.21
Sociability with family	−.03	.14	−.02	−.22

- *Sociability with friends* is linked to all forms of social capital. In any case the correlation is greater than 0.2, meaning not only that people in higher social positions have more contacts but also that people with strong social capital have more contacts.[58] In this context, it is interesting to see that the higher correlation is with social capital as measured by the position generator.
- *Network volume* is independent of economic and cultural capital but clearly linked to the position and resource generators. In other words, a network of a large volume is not linked to a particular position, but this is linked to the social capital, independently the way it is measured.
- *Sociability within family*, which is coded in the reverse direction, meaning that higher values mean less frequent visits, is correlated above all with the resource generator. In other words, this type of support is also related to a dense network of close relations. By contrast, the correlation is in the reverse direction with cultural capital, meaning that higher cultural capital means a lower frequency of visits to family members.

In summary, the types of social capital are not independent of, before all, sociability with friends but also volume contacts and sociability within the family. However, except for the support in the daily life as expressed by resource generator, social capital is more linked to other characteristics of the networks than the daily frequency of contacts. This is one more reason to stress on structural positions like economic and cultural capital but also, to the position generator.

9.4   Conclusion

One of the important results of this chapter is to show that the approach in terms of types of capital that we are building in this text is clearly related to daily interactions even if it is only part of the story. This relation is far stronger when looking at sociability and friends. When looking at relations with family and visits, there is a positive link to the resource generator, and a negative one with cultural capital, meaning here a possible compensation between social resources.

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58   Of course, the direction of causality is not discussed here: more contacts could be a way to reinforce social capital and position in the society and high social capital implies maintaining a lot of contacts in different spheres.

Ultimately, it is nevertheless important to underline that, even if the correlations are in the expected direction, they are relatively low, meaning that the dimensions describing daily interaction are not the same as the one identified through a discussion of the different facets of social capital. Nonetheless, they reflect theoretically important opportunity structure to access social capital. It is also interesting to underline that the measures discussed here are relatively independent of the countries, making it possible to discuss these dimensions in a comparative perspective without having all the results conditioned by local idiosyncrasy. Such a question about possible local or national effect will also be at the heart of the next chapter.

10 Network, State or Market: From Persons to Institutions

When we discussed the design of the resource generator for this ISSP module we were aware that frequently members of one's network are not the only possible and sometimes not even the most likely source of support. If somebody needs money to build a house he or she may ask a bank rather than a family member; or if someone needs medical advice they will probably turn to a doctor and not to a friend. Obviously, depending on the kind of support, the circumstances and context – at the personal as well as institutional level – persons may look for support from members of their networks or they can decide to pay for services on the market or they may obtain services from the state or a non-profit organisation. Thus, within the resource generator we had to address two sets of questions, one set related to support by members of the network of personal relations, the other set addressing potential service providers broadly divided between state and market. Chapter 7 was devoted to the question of the support given by network members. Now we turn to the division of support between personal relations, the state or other non-profit service providers and the market.

Thus, we are again discussing an indicator based on access to resources. Therefore, we could have also included this chapter in the preceding part of this publication along with our discussion of measures and measurement. We prefer, however, to include this chapter in the *Results* part as we interpret the relation between individual resources and access to organisational support once again as an interplay of types of capital.

The national landscape shapes the "structure of opportunity" for obtaining goods and services. This structure could vary not only between countries but also between different social groups within a given country depending on its social structure and institutional arrangements. However, in this chapter we mainly focus on the country level and analyse countries as contexts for social resources.

10.1 Data: How We Measure Sources of Support

The question which was specifically developed for this module was oriented towards the choice between persons and institutions in different cases.[59] The following box presents the format used here.

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59 A similar format was used in the older ISSP questionnaires of 1986 and 2001. We replicated this older version and will briefly discuss its results at the end of this chapter.

QB26. *If you need help you might turn to people you know or to services or organisations. For each of the following situations, please tick a box to show who you would turn to first for help.*

Who would you first turn to if you needed...

    a. help for a household and a garden job that you can't do yourself

    b. look after you if you were seriously ill

    c. help with finding a new place to live

    d. advice on family problems

    e. advice on administrative formalities and on other legal matters

And the response categories were:

    1. Family members or friends

    2. Religious organisations

    3. Other non-profit organisations

    4. Public services

    5. Professional services

    6. Other

    7. No one

    8. Can't choose

Because the distribution of answers across the categories is very uneven, leading to extremely small groups, we have collapsed the answers into four categories:

- Code 1: persons, i.e. family members or friends (old Code 1)
- Code 2: non-profit organisations, i.e. religious and non-profit organisations as well as public services (old Codes 2,3,4)
- Code 3: for-profit organisations, that is professional services (old Code 5)
- Code 0: other, no one, not mentioned (old Codes 6,7,8)

The answering categories and this new classification reflect long discussions on what sources of support should be distinguished. On the one hand we have to offer the most adequate categories to the respondents. That explains why we have kept "religious organisations" even though they are not of the same importance in every country. On the other hand, the theoretical frame refers to "state", "market" and "network" as three distinct providers of support, which are translated into the categories "non-profit", "for-profit" and "personal" sources of support.[60]

The first point we are interested in is whether the division between network, state and market is the same for every kind of support or whether different kinds of support are related with distinct patterns of answers. Should the pattern be the same across types of support, a simple general index of support could be proposed. If,

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60 Alternatively, we could have used a very long list of answering categories listing all possible types of personal and organisational support. This was the solution adopted in the past ISSP modules from 1986 and 2001 (see below).

however, each kind of support shows a distinct mix of network, state and market, then the establishment of a combined index is statistically more demanding. Consequently, we shall begin by exploring the structure of support and then establish an index summarising resource volume by the different providers of support. To this end we will use multiple correspondence analysis (MCA, Greenacre & Blasius 2006), a tool allowing us to establish the dimensionality of a set of variables and to display the patterns of answers, allowing us to assess one or the other hypothesis about organisation of answers.

10.2 Exploring the Structure: Multiple Correspondence Analysis or the Role of Institutions

To our knowledge, few empirical studies have investigated whether inhabitants of different countries systematically differ in the way they perceive support to be available from state, market and network sources. The literature on the extent and functioning of the welfare state comes closest to addressing this kind of question, though more from the point of view of the system. We shall discuss later the mix of different types of resources but let us first look at the characteristics of the distribution.

One method to establish the dimensionality of a set of items measured through nominal variables is multiple correspondence analysis (MCA) estimating the distance between categories with an Chi²-distance and looking for the best representation in a space of smaller dimension.[61] The MCA solution we obtain for the different kinds of resources differentiated by who provides them is satisfying in terms of explained variance: taking the corrected value proposed by Greenacre (1993),[62] nine-tenths (89.9%) of the variance of the configuration is explained by the first two dimensions, which justifies considering no more than these two dimensions.

- The first dimension is mostly characterized by the availability of support, i.e. distinguishes between having and not having access to different kinds of resources.
- The second dimension highlights the difference between having access to a resource through one's network of personal relations and obtaining a resource through an organisation, either a for-profit or a non-profit one.

The analysis indicates some differences between countries: France has a lower level of support (nearer the "no one" side), while Switzerland is in the direction of support by organisations and Taiwan, China, Turkey and the USA are closer to the "family or friends" pole.

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61 In fact, it is equivalent to the scaling procedure presented in Chapter 7 with nominal variables and allowing the scaling to vary by dimension (de Leeuw & Mair 2009).

62 Package ca in R (Nenadić & Greenacre 2007).
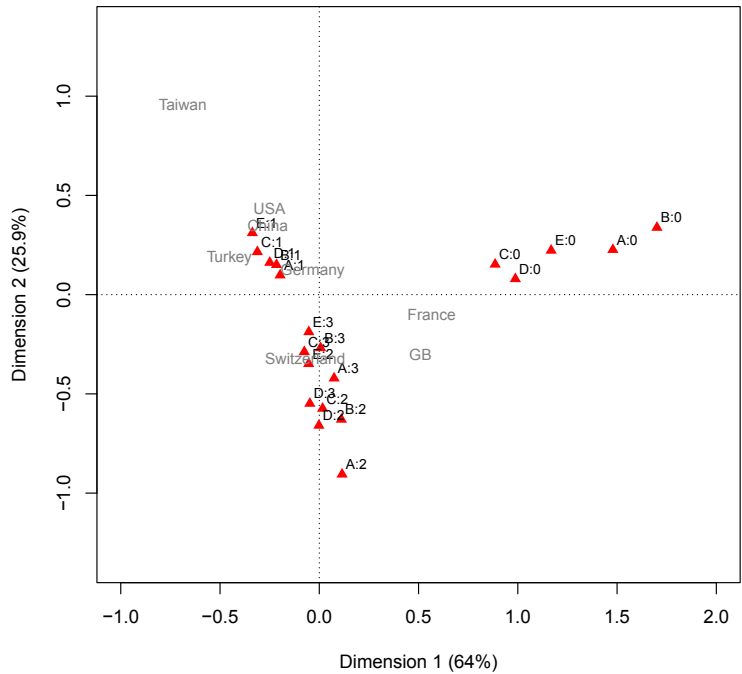
Note: A Garden or household help; B Look after seriously ill; C New place to live; D Family problems; E Administrative problems.
0 No resource; 1 Person; 2 Non-profit; 3 For-profit.

Figure 10.1   First two dimensions of MCA solution for sources of support

The analysis reveals a structure in which each source occupies a particular sector of the graph. This implies that additive indexes, counting the number of occurrences of a particular source, are adequate because they are strongly correlated to the dimensions defined by such an analysis.

10.3   Measures of Support or the Role of State, Market and Network

As measures we build three indexes counting the number of times a resource is obtained through a personal relation, through for-profit or through non-profit sources. We also compute the sum of these three indicators, presenting the entire volume of support. Support from personal relations is of course conceptually equivalent to the measure of network support obtained by the resource generator defined in Chapter 7. Support by profit-oriented organisations is linked to the market and support by non-profit organisations is often seen as corresponding to the state sector.

Our interest lies in exploring the relationships between these indexes and the four forms of capital that we have built. A set of hypotheses can be put forward here:

- The index of personal resources will be strongly correlated with the index of network support obtained from the resource generator;
- The index describing the total number of resources will also be strongly correlated with network support but to a lesser extent;
- The index describing access through for-profit organisations will be correlated with economic capital;
- The index describing access through non-profit organisations will be negatively correlated with economic capital.

Let us first look at the results considering all countries together (see upper left part of Table 10.1):

- The measure derived from the resource generator is indeed highly correlated with the index of resources accessed at personal level. But the correlation is even higher with the total index, showing that network support gained from the resource generator is not only reflecting personal interactions but can be seen as a more global index of support resources;
- Economic capital is indeed negatively correlated with the usage of non-profit sources and positively correlated with for-profit ones. However, the correlations are rather weak, around 0.1;
- Cultural capital does not seem to be linked to access to the resources nor is social capital as measured by the position generator, with the exception of the global index.

Across all samples our expectation of a strong correlation between persons as sources of social support and the resource generator score is confirmed by the data (see Table 10.1). Also, the correlation between economic resources and use of market sources for providing support tends to be positive while the use of non-profit sources is negatively related with economic resources.[63]

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63 From a technical point of view, as in other parts of this publication, we put together the respondents of China and Taiwan when referring to "Chinese-speaking respondents". This might be problematic from a political science perspective but the samples are too small, in particular when analysing the resource generators implemented in a split sample design. Because the translations were partly shared between China and Taiwan the combination of samples, even if not optimal, may be acceptable from a pragmatic point of view.

Table 10.1   Correlation between capital and resources, all countries and by countries

	E	C	P	R	E	C	P	R
	All				China/Taiwan			
Personal	.10	−.01	.05	.52	.04	.04	.01	.41
Non-profit	−.13	.01	.05	−.11	.00	−.07	−.00	−.08
Profit	.11	.10	.05	−.10	.04	.10	.02	−.10
Total	.12	.08	.19	.60	.12	.13	.04	.46
	France				Germany			
Personal	.07	−.01	.12	.58	.10	−.03	−.07	.53
Non-profit	−.04	.08	.05	.02	−.16	.02	.16	−.10
Profit	.04	.08	.01	−.05	.14	.15	.10	−.21
Total	.08	.10	.20	.71	.11	.11	.17	.63
	Switzerland				Turkey			
Personal	.05	−.05	.14	.47	.19	.09	−.17	.37
Non-profit	−.12	.01	−.05	−.12	−.30	−.16	.11	−.23
Profit	.15	.18	.00	−.19	.13	.12	.13	−.03
Total	.13	.15	.19	.47	.01	.05	−.04	.34
	Great Britain				USA			
Personal	.20	.10	.07	.56	.14	.22	.18	.45
Non-profit	−.03	.07	.16	−.10	−.13	−.29	−.13	−.07
Profit	−.07	.04	.03	−.01	.08	.08	−.05	−.14
Total	.17	.24	.28	.61	.22	.20	.12	.54

Note: E: Economic capital; C: Cultural capital; P: Position generator; R: Resource generator.

Table 10.1 shows that generally we have the same structure of correlations for each country even if some differences can be mentioned.

- The strong correlation between resource generator and personal resources holds in every country of our sample. But in all countries the correlation is also stronger with the index describing the sum of resources.
- A negative correlation between economic capital and non-profit source of resource is observed everywhere but at a low level. The same positive correlation between economic capital and market-based resource is true nearly everywhere, but also at a low level.
- The correlation between position generator and source of support is low everywhere, except with the global index summing all providers of support: this confirms that the social capital measure based on the position generator is very general.

▪ The correlation of cultural capital with market-based resources is positive in most countries. In contrast cultural capital varies only slightly or even negatively with support from non-profit organisations, particularly for Turkey or the USA. That means that cultural capital in these cases follows the same pattern as economic capital, i.e. it does not seem to be an alternative form helping to access non-market resources.

Though the structure of correlations of measures within countries is rather similar, we may perhaps observe differences of levels. Figure 10.2 represent the distribution of the four indexes by country. The results are interesting:

▪ For support based on persons, there seem to be two groups of countries, with China, Taiwan, Turkey and the USA on one side, where the level of network support is higher than in other Western countries;

▪ Non-profit based services generally are less often mentioned, with Turkey being an exception;

▪ For market-based services the distribution is also characterised by low levels, with the largest value observed in Chinese-speaking countries;

▪ When combining the different indexes into a global one, the differences between countries even out;

▪ It was already observed by authors like van der Gaag (2005) that the distribution of resources is highly skewed: most of the people mentioned that they have support for each of the five situations proposed, implying that the maximum of this variable, five, is also its modal value. If nearly everyone has access to all sources of support the differences between countries will disappear. This implies that for questions of a comparative nature the measure of personal, network resources will most likely differentiate better.

In summary, we have found differences between countries which were much smaller than expected. This is true not only for correlations but also for the level of these indexes. This implies that the contexts of opportunity shaped by the countries may affect the sources for support far less than we had anticipated. However, the reported results could also be the consequence of the items used here. This certainly has to be explored further with the full data set for the 2017 module.
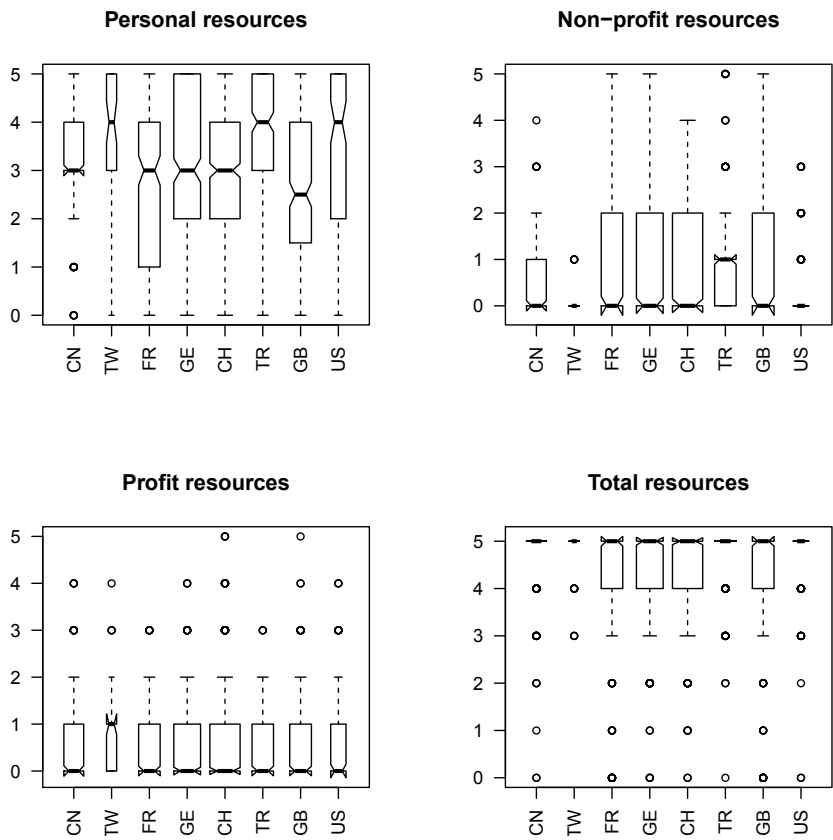
Figure 10.2 Distribution of resources by country

10.4 Links With the Format Used in the ISSP 1986 and 2001

As noticed at the beginning of this chapter, we have used a split questionnaire design for this version of the resource generator, one form going back to the earlier editions of the ISSP network modules and the one that we have discussed so far. The older format – which was presented as split A – is described in the next box, having a long list of answer categories and using a response schema with first choice – second choice.

QA14. *First, there are some household and garden jobs you can't do alone – for example, you may need someone to hold a ladder, or to help you move furniture. Who would you turn to first for help? And who would you turn to second?*

Husband/wife/partner

Parent

Child

Sibling

Other family member

Close friend

Neighbour

Someone I work with

Other friend or acquaintance

Social services

Someone I pay for (or, for Q16, Employer, Bank or credit union, Private money lender)

O. No one

X. Can't choose

And the same for

QA15. *Suppose you had the flu and had to stay in bed for a few days and needed help around the house, with shopping and so on. Who would you turn to first for help? And who would you turn to second?*

QA16. *Now, suppose you needed to borrow a large sum of money. Who would you turn to first for help? And who would you turn to second?*

QA17. *Suppose you had problems with your computer and needed help. Who would you turn to first? And who would you turn to second?*

QA18. *And, suppose you needed to find a new place to live. Who would you turn to first for help? And who would you turn to second?*

QA19. *Now, suppose you needed help in looking for information about a serious personal health issue. Who would you turn to first for help? And who would you turn to second?*

QA20. *And, who would you turn to first if you needed advice on administrative formalities and on other legal matters? And who would you turn to second?*

QA21. *Now suppose you felt a bit down or depressed, and you wanted to talk about it. Who would you turn to first for help? And who would you turn to second?*

QA22. *And, suppose you were very upset about a problem with a close family member or friend and hadn't been able to sort it out with her/him. Who would you turn to first for help? And who would you turn to second?*

QA23. *Finally, if you wanted to spend time with someone who appreciates you for who you really are, who would you turn to first? And who would you turn to second?*

QA14, QA15 and QA16 were taken directly from preceding ISSP editions while items QA17 to QA23 were added. In principle these items may be directly compared to those of split B (QB26a to e, presented in Section 10.1) based on the argument that they target the same latent dimension. However, it seemed safer to us to directly compare only items with similar formulations. Therefore the following analysis will be done on items QA14, QA15, QA18, and QA20 considered as equivalent to items QB26a, QB26b, QB26c and QB26e, respectively. These items were coded according to three rules (for the second split, QB, this is the same recoding as in section 10.1.):

▪ Support by a person: code 1 to 9 for QAxx (and code 12 "employer" for QA18) or code 1 for QB26x;

▪ Support by a non-profit organisation or by the state: code 10 for items QAxx or code 2, 3 and 4 for items QB26x;

▪ Support by a for-profit organisation or the market: code 11 for items QAxx or code 5 for items QB26x.

Based on this coding frame an additive index was built counting the number of mentions for these different supports, later dichotomized between 0 (absence of support) and 1 (presence of support). Each respondent therefore may have mentioned all three types of support-sources.

A direct comparison of the measures from split A and B for the same respondents is not possible as they were fielded in non-overlapping parts of the sample. We can, nevertheless, compare the distributions of both versions. Because of so many categories for personal support and because the organisational sources were at the end of the long answering lists we hypothesise that in the older version "profit" and "non-profit" organisations are far less frequently mentioned than in the new version proposed here.

Results of this comparison are given in Table 10.2. In the old format the distribution of support from personal sources is indeed highly skewed: almost every respondent reports such a source (99.5%). This percentage is slightly lower in the new version where 89% of respondents mention support from personal relationsships. If we look at the organisational forms of support, we see that our expectation is at least met with respect to non-profit organisations: While these are mentioned by less than one third of the respondents (27%) in the old format, they are mentioned by two thirds in the new version (65%). For-profit organisations are mentioned also a little less often in the old format (36% against 39%), but this difference is small.

Table 10.2   Comparison of sources of support between old and new format

	Old	New
Support by …		
Person	99.5%	89%
Non-Profit organisation or state	27%	65%
For-Profit organisation or market	36%	39%

Of course, we do not know the true distribution. However, the distribution of the new version, particularly regarding non-profit sources of support, seems more reasonable. We have therefore suggested including this version in the final questionnaire, a recommendation confirmed by the General Assembly of the ISSP.

10.5   Conclusions

At least three results can be emphasised at this stage.

- It is possible to build stable indicators of the sources of support based not only on members of the network but also on organisations be they for profit or not for profit.
- The correlations with the different types of capital, starting with the one defined by the resource generator, are in line with expectations, confirming the validity of the suggested measures.
- Even if the countries are contexts of institutions shaping access to resources, the differences seem to be small in the end. This is true not only for the structure of correlations but also for the levels of the indexes.

A last point is important to mention: in comparison with the variables used in the 1986 and 2001 editions of the ISSP, the new format designed for the 2017 module seems to have better measurement properties.

Part IV

Final Questionnaire and Outlook

Introductory Remarks

Based on the results of the exploratory study we presented in the preceding chapters this last part documents the final questionnaire for the 2017 module of the ISSP and ends with some thoughts on research problems that could be addressed with data from this module.

11 Construction of the Final Questionnaire

We presented in Chapter 3 the many rules and constraints one has to follow when developing an ISSP questionnaire. One of the most restricting is to limit the questions to 60 variables in the dataset. The selection of items for the final questionnaire can in principle follow one of two strategies (or mix them):

- Reduce the number of concepts while keeping the number of items per concept constant.
- Retain all concepts and reduce the number of items for each of them.

We mostly applied the second strategy to increase the analytical potential of the survey. In doing so we could also ensure covering all the topics that the General Assembly of the ISSP had selected for this module. In the next paragraphs we briefly describe the content of the final questionnaire. We do this by following the order of questions in the final questionnaire, thereby making it easier for the reader to see the changes by looking at the two questionnaires – both of which can be found in the Appendix.

11.1 Core Questionnaire

Position generator

Based on the results of Chapter 6 we took two aspects into account when constructing the final version of the position generator:

- The number of occupations: although our results may be interpreted by some in terms of the famous proverb "less is more", we recommend retaining enough diversity in the list of positions and decided to keep 10 occupations. These are: bus/lorry driver, a senior executive of a large company, a home or office cleaner, a hairdresser/barber, a human resource manager/personnel manager, a lawyer, a car mechanic, a nurse, a police officer, and a school teacher.
- The answer categories: these were simplified, without altering the logic, keeping only 1) family or relative, 2) close friend, 3) someone else or 4) no one.

The choice of occupations was not solely based on statistical criteria, i.e. the "best" ten resulting from an analysis of all occupations and all countries. We also took the expertise of the drafting group members into account and discussed in depth which occupations to include and why. The final list is the result of this mixed approach. It is interesting to see that the chosen occupations were also very often used in previous studies including a position generator, contributing to the stability of the instrument.[64] The position generator items are Question 1 (Q1) in the final questionnaire.

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64 For a global view of the occupations used in the position generator, see Fu and Lin (2015).

Perception and justification of social inequality

The question about the perception and justification of social inequalities was important to analyse and understand the contemporary political and social challenge. In the pretest we used eight items representing two dimensions as shown in Chapter 4 referring to **Inequalities** and **Social Benefits**. These two dimensions were kept as Question 2 (Q2), each measured by two items.

State vs market as service providers

In addition to the question on network and organizational support (explored in Chapter 10), we wanted to further assess the relationship between state and market. Two items which were included in the pretest but not used in our analysis are questions on service providers for health care and older people. The General Assembly decided to keep them (in a form similar to the one adopted in the ISSP 2016 questionnaire, Q3 and Q4 in the final questionnaire). In the pretest three more questions in this area were included, namely who should have the duty to provide decent housing for those in need, about the duty of government to provide jobs and the duty to provide a decent living standard. These latter items were dropped from the final questionnaire.

Participation and empowerment

The next items are about participation and empowerment (or political efficacy). Once again, we have followed the logic of keeping the concepts but reducing the number of indicators. In accordance with the underlying rationale of the questionnaire, participation refers to three fields – leisure, political involvement and religion – to cover a broad range of possible personal commitments (Question Q5).

A traditional question representing empowerment, reflecting the perceived possibility of intervening in actions of the government, was also maintained (Question Q6).

Resource generator

Because of its central role in this module, we devote 10 items to the resource generator. According to the results of our analyses, in particular with the split design summarised in Chapter 7, we decided that both resources given by individuals and those given by institutions should be covered in equal measures. At the same time the resources should also reflect emotional, informational and practical support, even though, as we have shown in Chapter 7, they can be combined into a second-order factor.

In sum, we have kept two groups of five items (see Questions Q7 and Q8):

- One group measuring interpersonal support with answer categories that follow the same logic and hopefully the same metric as in the analyses presented in this

publication: close family member, more distant family member, close friend, neighbour, someone you work with, someone else, no one.

▪ A second group of items also tapping into support from institutions. This is reflected in the answer categories: family members or close friends, other persons, private companies, public services, non-profit or religious organisations, other organisations, no support.

Loneliness or perceived integration

In the exploratory survey we have used a long scale measuring loneliness, a lack of social integration. For the final questionnaire only the three items from the Short Loneliness Scale (SLS) were kept (see Question Q9). The decision was made because these items form an established scale and also reliably measured the concept of loneliness in our study.

Interpersonal and institutional trust

Trust was represented in the pretest with six items, three related to interpersonal trust and three to trust in institutions. It was decided to keep both aspects in the final questionnaire but cut one item in each domain, i.e. keep two items each for interpersonal and institutional trust, respectively. However, the General Assembly decided to measure interpersonal trust with two items now broadly used in most contemporary surveys, such as the General Social Survey. The two items on trust in others were first introduced into the ISSP in 2004 and repeated in 2014 in the two last Citizenship modules (see Questions Q10 and Q11).

For institutional trust, the General Assembly decided to use the modern answer format with an 11-point scale, already employed in the pretest. However, the content of the items was slightly changed. Given the importance that this module gives to the triad of "state, market or network" as sources of support it was decided to ask for trust in "major private companies". For the state dimension it was decided not to refer to any "political" authority, e.g. prime minister, as these usually are mostly evaluated in the light of the political circumstances at a given time. Instead the "courts" were chosen as representatives of the state (cf. Question Q12).

Norms of reciprocity

In the pretest we measured two types of reciprocity. It was decided to keep only the dimension "Intrinsic reciprocity" in the main part of the final questionnaire and retain the three items also used in the pretest on norms of obligation and solidarity (see Question Q13). These items refer to the duty of children to take care of elderly parents, the duty to take care of yourself and family members before you help others and the duty to help friends who are less well off. (Items measuring the concept "Instrumental reciprocity" were included among the optional items, see below.)

Strain and conflict in social relations

Social capital is a collection of 'positive' social resources. However, interpersonal relationships also occasionally cause severe restrictions on goal attainment (e.g. Heller & Rook, 1997; Portes, 1998; Newsom et al., 2005). Social strain and conflict in personal networks are also often related to precarious life conditions (Sapin et al. 2008; Sapin et al. 2016), unemployment as well as irregular employment. Two items – also included in the pretest but not used in our report – reflect the extent to which respondents feel their family puts pressure on them about the way they lead their lives and an item referring to too many demands by family, relatives and friends (Questions Q14 and Q15). An additional item asks about the frequency of conflict with important members of the social network (Question Q16).

Contact frequency

In Chapter 9 we have seen the importance of having a detailed description of contacts with members of the personal network: parents, siblings, other family members or friends. This was in fact already an important dimension in the 2001 questionnaire. Therefore, 10 items tapping in this field were included in the final questionnaire (Questions Q17 to Q26). The first two questions ask about the frequency of going out with three or more friends to eat or drink and how often one forms new ties at such occasions. The next two questions ask about the number of people one has contact with on a typical weekday and how many of these are met face-to-face. Then five questions ask about contact frequency with a parent, a sibling, an adult child, another family member and a close friend. A final question aims at measuring the importance of new technologies, such as mobile phones or the Internet, for staying in contact with members of one's network.

Health and well-being

The standard indicator of subjective health was kept in the module (Q27) as were two indicators of well-being (Question Q28).

Control and life satisfaction

The last two items of the 2017 module are devoted to measuring internal control (Q29) and life satisfaction (Q30).

Background variables: Cultural and economic capital

In addition to the "substantive" items of each module ISSP fields a set of mandatory "background variables", i.e. questions on mostly demographic and socio-economic nature.[65] For the ISSP 2017 module it was decided to add some indicators in this

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65   For more information see: https://www.gesis.org/issp/home/issp-background-variables/

domain. As we have argued throughout this report, cultural and economic capital play an important role as bases or complements of social capital. Personal income and household income are part of the standard set of background variables. These indicators of economic capital are complemented by a subjective assessment of the sufficiency of household income (Q31).[66]

For cultural capital the questions about language spoken or read was not easy to code. Therefore, the question used in the pretest was replaced by one with a simpler formulation asking "How many languages do you speak well enough to hold a conversation, including the language(s) you speak at home?" The highest educational qualification obtained, which is part of the mandatory background variables, may also be considered part of this dimension. The educational level of the partner was proposed as an optional item (see below).

11.2   Optional Questions

In addition to the 60 items of the module, a drafting group can propose "optional items" which – if accepted by the General Assembly and fielded by member countries – are integrated into the official ISSP dataset. Optional items are an elegant way to include questions which are of relevance only for a subset of countries.

Reciprocity, additional items

The aspect of "Instrumental reciprocity" did not receive enough support from the General Assembly to be included in the main part of the module. Because the drafting group believed this dimension to be of some importance it proposed to keep two items for this concept as optional (Question Q33).

Vertical dimension in informal meetings

Though we can safely assume that people's social positions always curb their interactions, the way this vertical dimension plays out varies between cultures. As the drafting group has learned from its East Asian members, distance between the social standing of participants in informal gatherings plays an important role in structuring such meetings in this region of the world. Therefore, two items on this matter were included as optional items (Question Q34).

Relation to members of community of origin

Also, the next two items were included as optionals because they pertain to specific cultural situations (see Q35 and Q36). The questions ask about contact frequency with friends from your hometown, i.e. the town in which you grew up, as well as contact frequency with friends from your religious community. These questions –

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66   Order of background variables is not predetermined but decided by the national teams.

which most likely are of more relevance in countries with high levels of rural-urban migration and strong religious traditions – point to the importance of place (home town, parish) and cultural heritage for network formation and development.

Cultural capital, additional item

The last optional question is on educational level of the partner (Q37). On the one hand this can be seen as an additional item capturing the cultural capital of the respondent. On the other hand, homogamy (or homophily) plays an important role in network theory.

12   Final Perspectives

At the end of this volume we would like to stress two basic principles that are essential for comparative survey research to be successful, as well as ISSP-specific aspects that ensure the quality and relevance of this particular survey.

Firstly, we are convinced that the group of researchers designing a questionnaire for a cross-national survey should represent a wide spectrum of countries representing the diversity of societies to be covered in the survey. This principle safeguards against including concepts or questions into the questionnaire that are understood in only some of the countries involved. For example, seating arrangements at private outings seem to be of some importance in East Asia, in particular China, but of little relevance in Western countries. Another example is the notion of a "personal God", which Christians can relate to, while those from Eastern religious contexts have problems grasping this concept. Cultural diversity within the group developing the questionnaire has the additional benefit that its members can already point to possible translation problems, thereby increasing the translatability of the final source questionnaire.

Secondly, as this report shows, pretests are of great importance in cross-national surveys possibly even more so than in normal surveys. It should be stressed again that having an exploratory survey in as many countries as possible representing different cultural traditions of the final country sample is important. These experiences are indispensable to test and ensure translatability of the source questionnaire. They show how far the questions are understood by people from different cultural backgrounds, and they indicate potential problems in administering the given questionnaire in different contexts. If resources are available to conduct a sufficiently large pretest – as was the case in the current study – then these data can be used for first substantive analyses: to operationalise concepts, to explore the (statistical) properties of the resulting constructs and their interrelationships and to choose optimal indicators for the main survey. This last point is crucial because questionnaire length is always limited, in particular in the case of the ISSP.

Of course, in the end, "the proof of the pudding is in the eating". For us this means we have to wait for the first release of the data from the ISSP 2017 module, which can be expected for May 2019. Only these data will allow us to analyse the full range of countries with high-quality samples of sufficient size. However, we hope to have already reached two goals with the exploratory survey and this report:

- To describe explicitly the reasoning underlying the construction of a questionnaire to measure "Social Networks and Social Resources", the constructs covered by the questionnaire and the related items.
- To establish the statistical routines for the analysis of these data and create proper measures going from exploratory procedures like principal component analysis or alternative linear scaling to more confirmatory techniques such as multi-group confirmatory factor analysis.

The substantive results of our exploratory study can be summarised as follows:

- Considering the social embeddedness of individuals, the specific characteristics and structure of their social relationships adds valuable insight into understanding their behaviours and attitudes; in other words, the aspects of social resources considered here are important variables to take into account while explaining attitudes and behaviours – as important as the variables describing social positions.
- Social relations cover many different aspects; we distinguish different dimensions which do not compete with each other to define a "best" indicator but which are complementary. Each of them is useful to explain different aspects of social relations. In particular, it is important to consider:
  - contacts in daily life;
  - support based on different sources (resource generator);
  - social resources situated in the social structure (position generator);
- It is also important to note that the network of relations itself is embedded in the social structure, in particular the structure of social inequality, and that the functioning of the networks depends on the country-specific institutional context. We have analysed this aspect under the title of interplay of network, state and market.
- Though the level of resources varies widely between countries, social relations play an important role in all countries, following a similar logic.

To be sure the results of this study are preliminary. Nevertheless, we are confident that we will be able to replicate our main findings with the official full dataset from all ISSP countries once it is available. The stability and coherence of the results obtained so far are a good indication of the robustness of the results. Of course, many interesting research questions have not been addressed by us or only mentioned in passing:

- We have only briefly touched on the notion that the evolution of the welfare state may change individuals' demand for support from their social networks, thereby shifting the balance from the state to networks and/or markets. We have briefly discussed this in Chapter 10 but this needs a far more in-depth exploration, already launched in a number of studies devoted to the future of the welfare state (cf. Bonoli & Natali 2012; Ervasti et al. 2012).
- Likewise, we have not systematically analysed the gender dimension. From a theoretical point of view, this dimension has to be addressed in more detail, reflecting at least the following three perspectives:
  - The intersectionality paradigm (Walby et al. 2012), which may e.g. be useful for analysing the gendered relationship to social positions measured by the position generator (Erickson 2004);
  - The relation to care and gendered occupations, which are increasingly debated in the context of the welfare state (e.g. Gerstel & Gallagher 1994);
  - Gendered structure of sources and types of social support (e.g. Moren Cross & Lin 2008; Muñoz-Goy 2013).

These – and many more – research questions can be analysed with the final data from the ISSP 2017 module. We hope to have convinced readers of this publication of the merits of the ISSP 2017 module on Social Networks and Social Resources and to have stimulated some of our readers' appetite to analyse these data for themselves.

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Appendix

A   Questionnaire of the Exploratory Survey

ISSP 2017 Module on Social Networks and Social Resources

Pretest source questionnaire

12.10.2015

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Notes:
1. Since the previous version of the questions, a new question on social participation has been added. See question D4_1b on work for voluntary or charitable organisations. A second new question replaces the problematic item on State intervention in the market (item D5_4c).
2. There is one single 2- group split in the section on social support and resources (series A and B for **B3.2**); and one filter for partner's type of work in the section on background variables.
3. All the elements in questions which require local adaptation are enclosed in square brackets.
4. Source and item history are reported above question text
5. The supplementary BV questions (on languages and income) can be asked in the proposed order or in the section on background questions.
6. See last page of this document for conceptual map of the pretest questionnaire and a list of sources.

B3.1_1 (position generator; see last page for references to concepts and sources)

Q1. The next question concerns the jobs that someone you know might have. This person could be a member of your immediate family, another family member, a close friend or an acquaintance. By "know", we mean that you do not have to know this person really well, but should know him/her by name, by sight and well enough to talk to him/her.

If you know several persons with the same kind of job, please just tick <u>the person closest to you</u>.

Do you know someone who is…?

PLEASE TICK <u>ONE</u> BOX ON EACH LINE

Do you know someone who is….?	Immediate family	Other family member	Close friend	Acquain-tance	Other person	No one
a. a bus/lorry driver	1	2	3	4	5	0
b. a boss of a small enterprise/business	1	2	3	4	5	0
c. <u>the</u> boss of a big company	1	2	3	4	5	0
d. a cleaner	1	2	3	4	5	0
e. a computer scientist	1	2	3	4	5	0
f. a farmer/agricultural worker	1	2	3	4	5	0
g. a foreman	1	2	3	4	5	0
h. a hairdresser	1	2	3	4	5	0
i. a human resource manager/personnel manager	1	2	3	4	5	0
j. a journalist	1	2	3	4	5	0
k. a lawyer	1	2	3	4	5	0
l. a librarian	1	2	3	4	5	0
m. a mechanic	1	2	3	4	5	0
n. a nurse	1	2	3	4	5	0
o. a police officer	1	2	3	4	5	0
p. a professional musician	1	2	3	4	5	0
q. a salesperson	1	2	3	4	5	0
r. a school teacher	1	2	3	4	5	0
s. a social worker	1	2	3	4	5	0
t. a receptionist	1	2	3	4	5	0

<TN: immediate family corresponds to one step family ties by blood or partnership>
< TN:"Other family member" include also in-laws
<TN: "acquaintance" could be a friend but not a close one>
<TN: "computer scientist" means somebody with a high education in computer sciences, such as "Informatiker" in German)>

< TN: "farmer/agricultural worker": the category must cover an owner of an agricultural farm as well as a worker at an agricultural farm.>.

<TN: "Foreman" must be taken in its general meaning; not only as factory foreman, but as supervisor of construction workers>

<TN: "Salesperson" means someone who works in a shop (must not be translated by a door-to-door salesperson)>

< TN : "The boss of a big company" refers to the highest boss, not high management in general>

<TN: In many languages there are male and female denominations for job titles (e.g. waiter/waitress).
  a) Use only the male form assuming it is the generic title where it is appropriate;
  b) Only if a clarification that the denomination involves both men and women is needed, use male and female form;
  c) For jobs almost exclusively male/female use only the corresponding title. >

B3_3_3_Q2 (NEW; perception of possible mobilisation of person referred in the PG)

Q2. Thinking of the people you mentioned in the previous question, how many of them would provide you with some kind of help in case of need?

PLEASE TICK <u>ONE</u> BOX ONLY

All or most of them	1
Around half of them	2
Only a few of them	3
Hardly none of them	4
Can't choose	8

The following section is about differences that might exist between people in [COUNTRY] and about the role of government.

D1_1 and D1_2 (Perception and justification of social inequality)

Q3. To what extent do you agree or disagree with the following statements?

PLEASE TICK <u>ONE</u> BOX ON EACH LINE

	Strongly agree	Agree	Neither agree nor disagree	Disagree	Strongly disagree	Can't choose
D1_1a. [ISSP 2009 Q6a] a. Differences in income in [COUNTRY] are too large.	1	2	3	4	5	8
D1_1b. [ESS4, D4] b. For a society to be fair, differences in people's standard of living should be small.	1	2	3	4	5	8
D1_1c. [ISSP2009 Q6d] c. The government should spend less on benefits for the poor.	1	2	3	4	5	8
D1_1d. [ISSP 2009 Q6b] d. It is the responsibility of the government to reduce the differences in income between people with high incomes and those with low incomes.	1	2	3	4	5	8
D1_2b. [ESS 4 D28] e. The social benefits and services in [COUNTRY] make people less willing to care for one another.	1	2	3	4	5	8
D1_1e. [NEW; classwar] f. The government should make sure that everyone who wants to go to university can do so.	1	2	3	4	5	8
D1_2c. [ESS 4; D43] g. There are insufficient benefits in [COUNTRY] to help the people.	1	2	3	4	5	8
D1_2a. [ESS 4 D27] h. The social benefits and services in [COUNTRY] make people lazy.	1	2	3	4	5	8

<TN item b: "Fair" in the sense of a just society>
<TN item b: "Standard of living": people's material circumstances>
<TN items cdf: "Government" might also mean "state", "public sector"; both central or local government is included.>

D5_1 [ISSP2016, N8a with slight wording adaptations]
Q.4 People have different opinions on who should provide services in [COUNTRY]. Who do you think should <u>primarily </u>be responsible for providing health care for the sick?

PLEASE TICK <u>ONE</u> BOX ONLY	
Public services	1
Private companies/for-profit organisations	2
Non-profit organisations/charities/cooperatives	3
Religious organisations	4
Family, relatives or friends	5
Can't choose	8

<TN:"Religious organizations": if necessary include "churches", "synagogues", etc.>
<TN:"provide" is about providing the service, it is not about funding.>

D5_2 [ISSP2016, N8b; ISSP2001; Q32b similar question, other format]
Q5. Who do you think should <u>primarily </u>be responsible for providing care for older people?

PLEASE TICK <u>ONE</u> BOX ONLY	
Public services	1
Private companies/for-profit organisations	2
Non-profit organisations/charities/cooperatives	3
Religious organisations	4
Family, relatives or friends	5
Can't choose	8

<TN:similar to D5_1>

D5_3 [NEW RC; QUESTION 2006, Q7]
Q6. Who do you think should <u>primarily</u> be responsible for providing decent housing for those who can't afford it?

PLEASE TICK <u>ONE</u> BOX ONLY	
Public services	1
Non-profit organisations/charities/cooperatives	2
Religious organisations	3
Family, relatives or friends	4
Can't choose	8

<TN:similar to D5_1>

D5_4 [ISSP1996, Q12; ISSP2006, Q7; ISSP2016, Q7]

Q7. On the whole, do you think it should or should not be the government's responsibility to ...

PLEASE TICK <u>ONE</u> BOX ON EACH LINE

	Definitely should be	Probably should be	Probably should not be	Definitely should not be	Can't choose
a. …provide a job for everyone who wants one	1	2	3	4	8
b. …provide a decent standard of living for the unemployed	1	2	3	4	8

<TN: "Government" might also mean "state", "public sector"; both central or local government is included.>

D5_4c [Gallup's Annual Governance Survey; State/market]

Q8. And, in general, do you think there is too much, too little, or about the right amount of government regulation of business and industry?

PLEASE TICK <u>ONE</u> BOX ONLY

Far too much regulation	1
Too much regulation	2
The right amount of regulation	3
Too little regulation	4
Far too little regulation	5
Can't choose	8

Some activities are done with others in organised groups, clubs or associations. The next questions are about your participation or not in such collective activities.

D4_1 (NEW, inspired by EASS)

Q9. In the past 12 months, how often have you taken part in groups, organisations or associations, either for leisure, sport or arts activities, or for any other forms of social or political activities?

PLEASE TICK <u>ONE</u> BOX ONLY

Daily	1
Several times a week	2
At least once a week	3
Several times a month	4
At least once a month	5
Several times a year	6
Less often	7
Never	8
Can't choose	88

<TN: "Groups"means "clubs" or "organized groups". It must not be translated in a way that it refers just to a group of friends going to the pub.

D4_1b [ESS 2012, D1]
Q10. In the past 12 months, how often did you get involved in <u>work</u> for voluntary or charitable organisations?

PLEASE TICK <u>ONE</u> BOX ONLY

At least once a week	1
At least once a month	2
At least once every three months	3
At least once every six months	4
Less often	5
Never	6
Can't choose	88

D4_2 (NEW, inspired by EASS)
Q11. In the past 12 months, have you taken part in any form of social or political protest?

PLEASE TICK <u>ONE</u> BOX ONLY

Yes, I have done it in the past 12 months	1
No, but I have done it in the more distant past	2
No, I have not done it but might do it	3
No, I have not done it and would never do it	4
Can't choose	8

D7_1 [ISSP 2001, Q37]

Q12. Suppose you wanted the local government to bring about some improvement in your local community. How likely is it that you would be able to do something about it?

PLEASE TICK <u>ONE</u> BOX ONLY

Very likely	1
Somewhat likely	2
Not very likely	3
Not at all likely	4
Can't choose	8

D7_2 [ISSP 2001, Q38 optional]

Q13. To what extent do you agree or disagree with the following statement? People like me don't have any say about what the government does.

PLEASE TICK <u>ONE</u> BOX ONLY

Agree strongly | 1 |

Agree | 2 |

Neither agree nor disagree | 3 |

Disagree | 4 |

Disagree strongly | 5 |

Can't choose | 8 |

SPLIT A

Now we would like to ask you who you would turn to for help, if you needed it, in different situations.

B3.2A_1 [ISSP86; Q10; RC adapted; instrumental help]
QA14. First, there are some household and garden jobs you can't do alone - for example, you may need someone to hold a ladder, or to help you move furniture. Who would you turn to <u>first</u> for help? And who would you turn to <u>second</u>?

PLEASE READ THROUGH THE LIST AND WRITE IN THE BOXES BELOW THE LETTERS CORRESPONDING TO THE <u>FIRST</u> AND THE <u>SECOND</u> ONES THAT YOU WILL TURN TO.

A.   Husband/wife/partner
B.   Parent
C.   Child
D.   Sibling
E.   Other family member

F.   Close friend
G.   Neighbour
H.   Someone I work with
I.   Other friend or acquaintance

J.   Social services
K.   Someone I pay for

O.   No one

X.   *Can't choose*

First, I will turn to	
Second, I will turn to	

< TN: "Other family member" includes to in-laws

B3.2A_2 [ISSP86, Q2; ISSP01, Q22; RC adapted; instrumental help]
QA15. Suppose you had the flu and had to stay in bed for a few days and needed help around the house, with shopping and so on. Who would you turn to <u>first</u> for help? And who would you turn to <u>second</u>?

PLEASE READ THROUGH THE LIST AND WRITE IN THE BOXES BELOW THE LETTERS CORRESPONDING TO THE <u>FIRST</u> AND THE <u>SECOND</u> ONES THAT YOU WILL TURN TO

A.	Husband/wife/partner
B.	Parent
C.	Child
D.	Sibling
E.	Other family member
F.	Close friend
G.	Neighbour
H.	Someone I work with
I.	Other friend or acquaintance
J.	Social services
K.	Someone I pay for
O.	No one
X.	*Can't choose*

First, I will turn to	
Second, I will turn to	

B3.2A_3 [ISSP86, Q3; ISSP01, Q24; instrumental help]
QA16. Now, suppose you needed to borrow a large sum of money. Who would you turn to <u>first</u> for help? And who would you turn to <u>second</u>?

> PLEASE READ THROUGH THE LIST AND WRITE IN THE BOXES BELOW THE LETTERS CORRESPONDING TO THE <u>FIRST</u> AND THE <u>SECOND</u> ONES THAT YOU WILL TURN TO

A.	Husband/wife/partner
B.	Parent
C.	Child
D.	Sibling
E.	Other family member
F.	Close friend
G.	Neighbour
H.	Someone I work with
I.	Other friend or acquaintance
J.	Social services
K.	Employer
L.	Bank or credit union
M.	Private money lender
O.	No one
X.	*Can't choose*

First, I will turn to	
Second, I will turn to	

B3.2A_4 [NEW; derived from SSND; instrumental support]
QA17. Suppose you had problems with your computer and needed help. Who would you turn to first? And who would you turn to <u>second</u>?

PLEASE READ THROUGH THE LIST AND WRITE IN THE BOXES BELOW THE LETTERS
CORRESPONDING TO THE <u>FIRST</u> AND THE <u>SECOND</u> ONES THAT YOU WILL TURN TO

A.	Husband/wife/partner
B.	Parent
C.	Child
D.	Sibling
E.	Other family member
F.	Close friend
G.	Neighbour
H.	Someone I work with
I.	Other friend or acquaintance
J.	Social services
K.	Someone I pay for
O.	No one
X.	*Can't choose*

First, I will turn to	
Second, I will turn to	

B3.2A_5 [NEW; derived from SSND; informational support]
QA18. And, suppose you needed to find a new place to live. Who would you turn to <u>first</u> for help? And who would you turn to <u>second</u>?

PLEASE READ THROUGH THE LIST AND WRITE IN THE BOXES BELOW THE LETTERS
CORRESPONDING TO THE <u>FIRST</u> AND THE <u>SECOND</u> ONES THAT YOU WILL TURN TO

A.	Husband/wife/partner
B.	Parent
C.	Child
D.	Sibling
E.	Other family member
F.	Close friend
G.	Neighbour
H.	Someone I work with
I.	Other friend or acquaintance
J.	Social services
K.	Employer
L.	Someone I pay for
O.	No one
X.	*Can't choose*

First, I will turn to	
Second, I will turn to	

<TN: "Find a new place to live" means a "new home"; it could be for a while or for a longer term. The help to find a new home might be practical or financial>.

B3.2A_6 [NEW; derived from Connected Lives; informational support]
QA19. Now, suppose you needed help in looking for information about a serious personal health issue. Who would you turn to <u>first</u> for help? And who would you turn to <u>second</u>?

> PLEASE READ THROUGH THE LIST AND WRITE IN THE BOXES BELOW THE LETTERS CORRESPONDING TO THE <u>FIRST</u> AND THE <u>SECOND</u> ONES THAT YOU WILL TURN TO

A.   Husband/wife/partner
B.   Parent
C.   Child
D.   Sibling
E.   Other family member

F.   Close friend
G.   Neighbour
H.   Someone I work with
I.   Other friend or acquaintance

J.   Social services
K.   General practitioner or other professional counsellor
L.   Someone I pay for

O.   No one

X.   *Can't choose*

First, I will turn to	
Second, I will turn to	

B3.2A_7 [NEW; derived from SSND; informational support]
QA20. And, who would you turn to <u>first</u> if you needed advice on administrative formalities and on other legal matters? And who would you turn to <u>second</u>?

> PLEASE READ THROUGH THE LIST AND WRITE IN THE BOXES BELOW THE LETTERS CORRESPONDING TO THE <u>FIRST</u> AND THE <u>SECOND</u> ONES THAT YOU WILL TURN TO

A.	Husband/wife/partner
B.	Parent
C.	Child
D.	Sibling
E.	Other family member
F.	Close friend
G.	Neighbour
H.	Someone I work with
I.	Other friend or acquaintance
J.	Social services
K.	Someone I pay for
O.	No one
X.	*Can't choose*

First, I will turn to	
Second, I will turn to	

B3.2A_8 [ISSP86, Q5; ISSP01, Q26; emotional support]
QA21. Now suppose you felt a bit down or depressed, and you wanted to talk about it. Who would you turn to <u>first</u> for help? And who would you turn to <u>second</u>?

PLEASE READ THROUGH THE LIST AND WRITE IN THE BOXES BELOW THE LETTERS
CORRESPONDING TO THE <u>FIRST</u> AND THE <u>SECOND</u> ONES THAT YOU WILL TURN TO

A.   Husband/wife/partner
B.   Parent
C.   Child
D.   Sibling
E.   Other family member

F.   Close friend
G.   Neighbour
H.   Someone I work with
I.   Other friend or acquaintance

J.   Social services
K.   Professional counsellor
L.   Priest or member of clergy
M.   Self-help group
N.   Someone else I pay for

O.   No one

X.   *Can't choose*

First, I will turn to	
Second, I will turn to	

B3.2A_9 [adapted ISSP86, Q13; RC adapted; emotional support]

QA22. And, suppose you were very upset about a problem with a close family member or friend and hadn't been able to sort it out with her/him. Who would you turn to <u>first</u> for help? And who would you turn to <u>second</u>?

> PLEASE READ THROUGH THE LIST AND WRITE IN THE BOXES BELOW THE LETTERS CORRESPONDING TO THE <u>FIRST</u> AND THE <u>SECOND</u> ONES THAT YOU WILL TURN TO

A.	Husband/wife/partner
B.	Parent
C.	Child
D.	Sibling
E.	Other family member
F.	Close friend
G.	Neighbour
H.	Someone I work with
I.	Other friend or acquaintance
J.	Social services
K.	Professional counsellor
L.	Priest or member of clergy
M.	Self-help group
N	Someone else I pay for
O.	No one
X.	*Can't choose*

First, I will turn to	
Second, I will turn to	

< TN: "sort it out" must be taken in the sense of "(re)solve"

B3.2A_10 [NEW; adapted from SSND; companionship/acknowledgment]
QA23. Finally, if you wanted to spend time with someone who appreciates you for who you really are, who would you turn to <u>first</u>? And who would you turn to <u>second</u>?

> PLEASE READ THROUGH THE LIST AND WRITE IN THE BOXES BELOW THE LETTERS CORRESPONDING TO THE <u>FIRST</u> AND THE <u>SECOND</u> ONES THAT YOU WILL TURN TO

A.	Husband/wife/partner
B.	Parent
C.	Child
D.	Sibling
E.	Other family member
F.	Close friend
G.	Neighbour
H.	Someone I work with
I.	Other friend or acquaintance
J.	Other, specify:_____
O.	No one
X.	*Can't choose*

First, I will turn to	
Second, I will turn to	

END OF SPLIT A

BEGINNING OF SPLIT B

This section is about who you would turn to for help, if you needed it, in different situations.

B3_2 [social support and resources]

QB24. For each situation, please tick one box to say who you would turn to first for help. If there are several people you are equally likely to turn to, please tick the one who you feel closest to you.

PLEASE TICK <u>ONE</u> BOX ON EACH LINE

Who would you turn to first to …	Immediate family	Other family member	Close friend	Neigh-bour	Someone I work with	Other friend or acquain-tance	No one	Can't choose
a. [ISSP86; Q10a] help you for a household or a garden job that you can't do yourself	1	2	3	4	5	6	7	8
b. [ISSP86, Q2; ISSP01, Q22] help you around the house if you were sick and had to stay in bed for a few days	1	2	3	4	5	6	7	8
c. [ISSP86, Q2; ISSP01, Q22] help you if you needed to borrow a large sum of money	1	2	3	4	5	6	7	8
d. [NEW; adapted SSND] help you with finding a job	1	2	3	4	5	6	7	8
e. [NEW; adapted SSND] help you if you had problems with your computer that you cannot solve yourself	1	2	3	4	5	6	7	8
f. [NEW; adapted SSND] help you with finding a new place to live	1	2	3	4	5	6	7	8
g. [NEW; CL] help you look for information about a serious personal health issue	1	2	3	4	5	6	7	8
h. [NEW; adapted SSND] help you if you needed advice on administrative formalities and on other legal matters	1	2	3	4	5	6	7	8
i. [ISSP86, Q5; ISSP01, Q26] be there if you felt a bit down or depressed and wanted to talk about it	1	2	3	4	5	6	7	8

j. [NEW; inspired of ISSP86, Q13] give you advice on family problems

| 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 |

k. [NEW] make you feel appreciated for who you really are

| 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 |

l. [NEW; adapted from SSND; companionship]

be there if you just wanted to talk about your day

| 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 |

m. [NEW; CL]

look after you if you were seriously ill

| 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 |

<TN: immediate family corresponds to one step family ties by blood or partnership>

< TN:"Other family member" includes in-laws
<TN: acquaintance could be a friend but not a close one>

<TN: "a new place to live" means here a "new home"; it could be for a while or for a longer term. The help to find a new home might be practical or financial>.

<Notes on coding (if multiple answers in a paper version): the category the most at left must be chosen>

B3.2B_2 [NEW; Respondents' resources to reciprocate; R ability to mobilise own resources for others]

QB.25 Now suppose it is the other way around and one of the persons who would help you would need help from you. To what extent would you be able to help them?

PLEASE TICK <u>ONE</u> BOX ONLY

To a large extent | 1 |

To some extent | 2 |

A little | 3 |

Not at all | 4 |

Can't choose | 8 |

B3.2B_3 [Informal versus formal help**]**

QB26. If you need help you might turn to people you know or to services or organisations. For each of the following situations, please tick a box to show who you would turn to <u>first</u> for help?

PLEASE TICK <u>ONE</u> BOX ON EACH LINE

Who would you first turn to if you needed…	Family members or friends	Religious organi-sations	Other non-profit organi-sations	Public services	Profes-sional services	Other	No one	Can't choose
[ISSP86; Q10a - adapted] help for a household and a garden job that you can't do yourself	1	2	3	4	5	6	7	8
[NEW; CL] look after you if you were seriously ill	1	2	3	4	5	6	7	8
[NEW; adapted SSND] help with finding a new place to live	1	2	3	4	5	6	7	8
[NEW; inspired of ISSP86, Q13] advice on family problems	1	2	3	4	5	6	7	8
[NEW; adapted SSND] advice on administrative formalities and on other legal matters	1	2	3	4	5	6	7	8

<TN: "a new place to live" means here a "new home"; it could be for a while or for a longer term. The help to find a new home might be practical or financial>.

END OF SPLIT B

ASK ALL

C1 [SLS & UCLA-LS-R abcg; NEW; perceived integration]

Q27. The next questions are about how you feel about different aspects of your life. For each one, please indicate how often during the past 4 weeks you have felt that way.

PLEASE TICK ONE BOX ON EACH LINE

How often in the past 4 weeks have you felt that…	Never	Seldom	Sometimes	Often	Very often	Can't choose
C1e. [NEW] a. … there are people you can turn to?	1	2	3	4	5	8
C1h. [NEW] b. … it is hard to get into a group of friends?	1	2	3	4	5	8
C1d. [New] c. … there are people who care about you?	1	2	3	4	5	8
C1a. [SLS] d. … you lack companionship?	☐	☐	☐	☐	☐	☐
C1g. [UCLA-LS-R] e. … you are part of a group of friends?	☐	☐	☐	☐	☐	☐
C1c. [SLS] f. … you are isolated from others?	☐	☐	☐	☐	☐	☐
C1f. [NEW] g. … there are people who show respect to you?	☐	☐	☐	☐	☐	☐
C1b. [SLS] h. … you are left out?	☐	☐	☐	☐	☐	☐

<TN: "companionship" is the sense of "company".
<TN: "… left out" in the sense of "isolated".

D6_1 (ISSP2001, Q35; Trust in others)

Q28. To what extent do you agree or disagree with the following statements?

	PLEASE TICK <u>ONE</u> BOX ON EACH LINE

	Strongly agree	Agree	Neither agree nor disagree	Disagree	Strongly disagree	Can't choose
a. There are only a few people I can trust completely.	1	2	3	4	5	8
b. Most of the time you can be sure that other people want the best for you.	1	2	3	4	5	8
c. If you are not careful, other people will take advantage of you.	1	2	3	4	5	8

D6_2 (Adapted from ESS 7; RC ISSP2016; institutional trust)

Q29. Using the following scale ranging from 0 to 10, where 0 means "No trust at all" and 10 means "Complete trust", please indicate how much you <u>personally</u> trust each of these people?

	PLEASE TICK <u>ONE</u> BOX ON EACH LINE

No trust at all   Complete trust   Can´t choose

	00	01	02	03	04	05	06	07	08	09	10	Can't choose
a. Head of the [COUNTRY]'s government	0	1	2	3	4	5	6	7	8	9	10	88
b. CEO of a private bank or of a big enterprise in [COUNTRY]	0	1	2	3	4	5	6	7	8	9	10	88
c. Members of the [COUNTRY] Supreme Court	0	1	2	3	4	5	6	7	8	9	10	88

<TN: "Head of [COUNTRY]'s government have to be adapted to consider the specific national context>

<TN: "Members of the [COUNTRY] supreme court" must be translated by the specific national name>

B3_4_5_1a/b/c/d [ISSP 2001, Q31abcd; items e and f: NEW Perugini, 2003]

Q30. Please tick a box on each line to indicate how much you agree or disagree with each of the following statements.

	PLEASE TICK <u>ONE</u> BOX ON EACH LINE					

	Strongly agree	**Agree**	**Neither agree nor disagree**	**Disagree**	**Strongly disagree**	**Can't choose**
a. Adult children have a duty to look after their elderly parents.	1	2	3	4	5	8
b. You should take care of yourself and your family first, before helping other people.	1	2	3	4	5	8
c. People who are better off should help friends who are less well off.	1	2	3	4	5	8
d. It is all right to develop friendships with people just because they can be of use to you.	1	2	3	4	5	8
e. Helping somebody is the best way to be certain that this person will help you in the future.	1	2	3	4	5	8
f. When someone does a favour to somebody else, this person feels committed to repay him/her.	1	2	3	4	5	8

B3.4.4_1 [ISSP 2001, Q34; social demands]

Q31. Do you feel that your family, relatives and/or friends make too many demands on you?

PLEASE TICK <u>ONE</u> BOX ONLY	

No, never	1
Yes, but seldom	2
Yes, sometimes	3
Yes, often	4
Yes, very often.	5
Can't choose	8

B3.4.4_2 [CCch; normative control]

Q32. How often do you feel your family exerts pressure on you in the way you live or organize your personal life?

PLEASE TICK <u>ONE</u> BOX ONLY

Never	1
Seldom	2
Sometimes	3
Often	4
Very often.	5
Can't choose	8

<TN: "family" is taken here in its broad meaning, including not only the nuclear family but also extended family members>.

<TN:" pressure" in the sense of normative pressure (e.g. preventing someone to do things)

B3.4.4_3 [PANSE; negative exchanges]

Q33. Thinking about the important persons in your life, such as your spouse or partner, your family members, or friends, how often <u>in the past 4 weeks</u> did these persons …

PLEASE TICK <u>ONE</u> BOX ON EACH LINE

	Never	Seldom	Sometimes	Often	Vey often	*Can't choose*
a. … act angry or upset with you?	1	2	3	4	5	8
b. … react unsympathetically to your personal concerns?	1	2	3	4	5	8

< TN:"Family members" include in-laws
< TN: "unsympathetically" in the sense" of not being empathetic, not having or showing the capacity of sharing the feeling of another.

B3_3_3_Q1abcd [EASS12]

Q34. The following questions are about occasions when you go out to eat or drink with three or more friends or acquaintances who are not family members. Please tick a box on each line to indicate how often you experience the following social activities.

PLEASE TICK <u>ONE</u> BOX ON EACH LINE

How often….	Never	Seldom	Sometimes	Often	Very often	Can't choose	It does not apply
a. … do you go out to eat or drink with three or more friends or acquaintances who are not family members?	1	2	3	4	5	8	0
b. … do you make new friends or acquaintances at these occasions?	1	2	3	4	5	8	0
c. … does one person dominate the conversation at these occasions?	1	2	3	4	5	8	0
d. … are seating arrangements carefully managed at these occasions?	1	2	3	4	5	8	0

B3_3_3_Q3 (NEW; extended from ISSP2006, ISSP2014; access and mobilisation: contact range)

Q35. On average, how many people do you have contact with in a typical day, including anyone you chat or talk to, face-to-face, by phone, or on the internet, and whether you know the person or not?

PLEASE TICK <u>ONE</u> BOX ONLY

0-4 persons	1
5-9	2
10-19	3
20-49	4
50-99	5
100 and over	6
Can't choose	8

B3_3_3_Q3b [NEW; contact range with strangers]

Q36. Among the people you have contact with on a typical day, how many are personally known to you (e.g. family members, friends or acquaintances), and how many are unknown (e.g. sales people, services providers, unknown people on the internet)?

PLEASE TICK <u>ONE</u> BOX ONLY

Almost all of them are known   `1`

Most of them are known   `2`

About half of them are known, half are unknown   `3`

Most of them are unknown   `4`

Almost all of them are unknown   `5`

Can't choose   `8`

Now, we would like to ask you some more questions about your family and close friends.

B3.3.1_1 [Adapted from previous ISSP; family and friendship census]

Q37. Are your parents still alive?

PLEASE TICK <u>ONE</u> BOX ONLY

Yes, both of them   `1`

Yes, my mother   `2`

Yes, my father   `3`

No, neither of them   `4`

Can't choose   `8`

B3.3.1_2 [New; can be compared to ISSP86; family and friendship census]
Q38. How many <u>adult</u> family members and close friends do you have? Please count only adult family members and close friends who are still alive and who do not live with you.

PLEASE TICK <u>ONE</u> BOX ON EACH LINE

Number of family members and close friends

	None	1	2 or 3	4 to 10	More than 10	Can't choose/It does not apply
a. **Brother(s) and sister(s)** (Please include step- and half- brothers and sisters)	1	2	3	4	5	8
b. **Children who are aged 18 and older and do not live with me**	1	2	3	4	5	8
c. **Other family members**	1	2	3	4	5	8
d. **Close friends**	1	2	3	4	5	8

<TN: Family members: Family refers here to extended family; could be translated by relatives>.
<TN: children in item b: it does not need to be detailed in including step-children (it is the own definition of respondents; it could be also step- or adopted children, if the respondent considers them as his or her children>.

B3.3.1_3 [New, can be partially compared to previous modules]
Q39. Thinking of your family members and close friends (other than those you live with), about how long does it take to visit the person who lives nearest to you? Think of the time it usually takes from door to door.

PLEASE TICK <u>ONE</u> BOX ONLY

Less than 2 minutes	1
Less than 15 minutes	2
Between 15 and 30 minutes	3
Between 30 minutes and 1 hour	4
Between 1 and 2 hours	5
Between 2 and 3 hours	6
Between 3 and 5 hours	7
Between 5 and 12 hours	8
Over 12 hours	9
Can't choose	88

B3.3.1_4 [Contact]
Q40. How often do you see or visit your parents? If your answer is different for your mother and father, please answer for the parent you see or visit most frequently.

PLEASE TICK <u>ONE</u> BOX ONLY

My parents are no longer alive	95
My parents live with me	96
The parent I see the most frequently lives with me	97
Daily	1
Several times a week	2
At least once a week	3
Several times a month	4
At least once a month	5
Several times a year	6
Less often	7
Never	8

B3.3.1_5 [Contact]
Q41. How often do you see or visit your brothers and sisters? Please answer for the brother or the sister you see or visit most frequently.

PLEASE TICK <u>ONE</u> BOX ONLY

I do not have any brothers and sisters	95
My brothers and sisters live with me	96
The brother or sister I see the most frequently lives with me	97
Daily	1
Several times a week	2
At least once a week	3
Several times a month	4
At least once a month	5
Several times a year	6
Less often	7
Never	8

B3.3.1_6 [Contact]
Q42. How often do you see or visit your children who are 18 or older and do not live with you? Please answer for the child you see or visit most frequently.

PLEASE TICK <u>ONE</u> BOX ONLY

I do not have any children who are aged 18 and older	95
My children aged 18 or older live with me	96
The child aged 18 or older I see the most frequently lives with me	97
Daily	1
Several times a week	2
At least once a week	3
Several times a month	4
At least once a month	5
Several times a year	6
Less often	7
Never	8

B3.3.1_7 [Contact]
Q43. How often do you see or visit other family members who are aged 18 or older and who do not live with you? Please answer for the family member you see or visit most frequently.

PLEASE TICK <u>ONE</u> BOX ONLY

I do not have other family members	95
All other family members I have live with me	96
The family member I see the most often lives with me	97
Daily	1
Several times a week	2
At least once a week	3
Several times a month	4
At least once a month	5
Several times a year	6
Less often	7
Never	8

B3.3.1_8 [Contact]
Q44. How often do you see or visit your close friends? Please answer for the close friend you see or visit most frequently.

PLEASE TICK <u>ONE</u> BOX ONLY

I do not have any friend who I consider as close	0
Daily	1
Several times a week	2
At least once a week	3
Several times a month	4
At least once a month	5
Several times a year	6
Less often	7
Never	8

B3.4.1 _1 [SSDN]
Q45. Please tick a box on each line to indicate how true or untrue each of the following statements is for describing your personal relationships.

PLEASE TICK <u>ONE</u> BOX ON EACH LINE

	Definitely true	Probably true	Neither true nor untrue	Probably untrue	Definitely untrue	Can't choose /It does not apply
a. Most of my friends know each other.	1	2	3	4	5	8
b. My close friends know my family members.	1	2	3	4	5	8
c. At work I meet completely different people than outside work.	1	2	3	4	5	8

The following questions are about your experience with the internet.

B3.3.2b_1 [LWO]

Q46. For each of the statements below, please tick one box to indicate how much you agree or disagree that it applies to you.

		PLEASE TICK <u>ONE</u> BOX ON EACH LINE					

	Strongly agree	Agree	Neither agree nor disagree	Disagree	Strongly disagree	*I do not use the internet*	*Can't choose*
a. The internet allows me to keep in touch with family members and close friends living far away.	1	2	3	4	5	0	8
b. I use the internet to communicate as often with family members and close friends living nearby as with those living far away.	1	2	3	4	5	0	8
c. The internet allows me to contact people who I would never have known otherwise.	1	2	3	4	5	0	8
d. I cannot make true friends on the internet.	1	2	3	4	5	0	8

Now, we would like to ask you some questions on yourself and how you feel about some other aspects of your life.

D2_1 (ISSP 2007: 17; 2011: Q26)

Q47. In general, would you say your health is …

PLEASE TICK <u>ONE</u> BOX ONLY	

Excellent	1
Very good	2
Good	3
Fair	4
Poor	5
Can't choose	8

D2_2ab [ISSP 2011: Q25ac] and D2_3abc [PSS-4, items 2,3,4] – health and well-being
Q48. During the past 4 weeks how often…

PLEASE TICK ONE BOX ON EACH LINE						
	Never	Seldom	Sometimes	Often	Very often	Can't choose
D2_2a [ISSP 2011: Q25a] a. … have you had difficulties with work or household activities because of health problems?	1	2	3	4	5	8
D2_3b [PSS-4, item 3] b. … have you felt that things were going your way?	1	2	3	4	5	8
D2_2b [ISSP 2011: Q25b] c. … have you felt unhappy and depressed?	1	2	3	4	5	8
D2_3a [PSS-4, item 2] d. … have you felt confident about your ability to handle your personal problems?	1	2	3	4	5	8
D2_3c [PSS-4, item 4] e. … have you felt difficulties were piling up so high that you could not overcome them?	1	2	3	4	5	8

D2_4 (GSE item 3 split in two; RC adapted)
Q49. For the following statements, please tick the box that comes closest to your opinion of how true or untrue it is for you.

PLEASE TICK ONE BOX ON EACH LINE						
	Definitely true	Probably true	Neither true nor untrue	Probably untrue	Definitely untrue	Can't choose
a. [GSE, item 3]. It is easy for me to stick to my aims.	1	2	3	4	5	8
b. [GSE, item 3] It is easy for me to accomplish my goals.	1	2	3	4	5	8

D2_5 [adapted from ESS 2014 and ISSP2012]

Q50. All things considered, how satisfied are you with your life as a whole nowadays?

PLEASE TICK <u>ONE</u> BOX ONLY

Completely satisfied   `1`

Very satisfied   `2`

Fairly satisfied   `3`

Neither satisfied nor dissatisfied   `4`

Fairly dissatisfied   `5`

Very dissatisfied   `6`

Completely dissatisfied   `7`

Can't choose   `88`

Supplementary background variables

B1B2_3 [adapted from EB 63.4]

Q51. What is your first language?

PLEASE TICK <u>ONE</u> BOX ONLY; IF YOU ARE BILINGUAL, PLEASE REPORT THE SECOND LANGUAGE IN THE NEXT QUESTION

[Language 1]   `1`

[Language 2]   `2`

[Language 3]   `3`

[Language 4]   `4`

[Language 5]   `5`

[Language 6]   `6`

[Language 7]   `7`

[Language 8]   `8`

[Language 9]   `9`

[Language 10]   `10`

Other, please specify_____   `11`

< SUPPLEMENTARY BV: PARTLY COUNTRY SPECIFIC: In each country we can have a set of 5 languages locally used and the 5 most worldwide used, in order to minimize the recoding of the open answers>
< Note to designers: the question does not intend to consider dialects or to distinguish between local variation, for example Swiss German and German, or British and American English, must be proposed as an unique category >
< TN: "first language" means the mother tongue, the native language>

B1B2_4 [adapted from EB 63.4]

Q52. In what language, other than your first language, do you speak well enough to hold a conversation?

IF YOU CAN HOLD A CONVERSATION IN SEVERAL LANGUAGES PLEASE TICK <u>THE ONE</u> IN WHICH YOU ARE THE MOST FLUENT

[Language 1]   ☐ 1

[Language 2]   ☐ 2

[Language 3]   ☐ 3

[Language 4]   ☐ 4

[Language 5]   ☐ 5

[Language 6]   ☐ 6

[Language 7]   ☐ 7

[Language 8]   ☐ 8

[Language 9]   ☐ 9

[Language 10]   ☐ 10

Other, please specify_____   ☐ 11

I do not speak any other language than my first language   ☐ 0

< SUPPLEMENTARY BV: PARTLY COUNTRY SPECIFIC: RC similar to **B3_3** >
< *Translation notes and not for designers similar to B3_3* >
< *TN: "well enough to hold a conversation" refers to ordinary daily life conversation.* >
< *Designer note: for the online pretest, do not exclude category answered at the previous question* >

B1B2_5 [adapted from EB 63.4]

Q53. And, in what language, other than your first language, could you read most of a newspaper?

IF YOU CAN READ IN SEVERAL LANGUAGES PLEASE TICK <u>THE ONE</u> IN WHICH YOU ARE THE MOST FLUENT

[Language 1]   ☐ 1

[Language 2]   ☐ 2

[Language 3]   ☐ 3

[Language 4]   ☐ 4

[Language 5]   ☐ 5

[Language 6]   ☐ 6

[Language 7]   ☐ 7

[Language 8]   ☐ 8

[Language 9]   ☐ 9

[Language 10]   ☐ 10

Other, please specify_____   ☐ 11

I could not read most of a newspaper in any other language than my first language   ☐ 0

*< SUPPLEMENTARY BV: PARTLY COUNTRY SPECIFIC: RC similar to **B3_3** >*
*< Translation notes and notes for designers similar to **B3_4**>*

B1B2_6 [proposal for ESS 2016; RC adapted]
Q54. How often, if at all, do you use the internet for any reason?

PLEASE TICK <u>ONE</u> BOX ONLY

Several times a day	1
Once a day	2
Several times a week	3
Once or twice a week	4
Less often	5
Never	6
I don't have access to the internet	0

B1b2_1 [adapted from SILC HS120]
Q55. A household may have different sources of income and more than one household member may contribute to it. Thinking of your household's <u>total</u> income, how difficult or easy is it for your household to make ends meet, that is, to pay for its usual necessary expenses?

PLEASE TICK <u>ONE</u> BOX ONLY

Very difficult	1
Fairly difficult	2
Neither easy nor difficult	3
Fairly easy	4
Very easy	5
(Don't know)	8

<Clarification note on "total income source": The respondent's assessment should be based on the household's total income: all income sources are to be taken into account (possibly irregular) and that "more than one household member may contribute to it". Income refers here to 'net' income i.e. to income after the deduction of tax and social insurance. >
<TN on make ends meet: As making ends meet does not exist in some languages, it can be translated by "pay for your usual necessary expenses". In that case drop the last proposition: "that is, to pay for its usual necessary expenses" >
<Clarification note on usual necessary expenses: The usual necessary expenses of the household should include housing related costs but exclude business and farm work costs>.

B1B2_2 [ESS4, F34]

Q56. If for some reason you were in serious financial difficulties and had to borrow money to make ends meet, how difficult or easy would that be?

PLEASE TICK <u>ONE</u> BOX ONLY

Very difficult ☐ 1

Fairly difficult ☐ 2

Neither easy nor difficult ☐ 3

Fairly easy ☐ 4

Very easy ☐ 5

(Don't know) ☐ 8

<TN on make ends meet: As making ends meet does not exist in some languages, it can be translated by "pay for your usual necessary expenses" >
<TN: Easy or difficult in any sense >

Background variables for the pretest

Finally, the last following questions are about yourself and your background.

S1. [SEXE] :
Are you…

Male | 1 |

Female | 2 |

S2 [AGE].
When were you born?

PLEASE, WRITE IN THE YEAR OF YOUR BIRTH (USE FOUR DIGITS FOR THE YEAR).

|__|__|__|__|

S3. [SDEGRE]
What is the highest level of education that you attained?

No formal education | 1 |

Obligatory education | 2 |

Middle secondary, apprenticeship | 3 |

University entry requirement | 4 |

University degree | 5 |

Can't choose | 8 |

<Note for questionnaire designer: don't simply translate; please use country-specific degrees to cover the meaning of the response categories!>

S5. [JOBTYPE] (ISSP2009 Q23b).
Here is a list of different types of jobs. Which type of job do you have now in your current job?
If you are not working now, please tell us about your last job.

Please tick one box only.

	Your current/last job
Professional and technical (for example: doctor, teacher, engineer, artist, accountant, nurse)	☐1
Higher administrative (for example: banker, executive in big business, high government official, union official)	☐2
Clerical (for example: secretary, clerk, office manager, civil servant, bookkeeper)	☐3
Sales (for example: sales manager, shop owner, shop assistant, insurance agent, buyer)	☐4
Service (for example: restaurant owner, police officer, waitress, barber, caretaker)	☐5
Skilled worker (for example: foreman, motor mechanic, printer, seamstress, tool and die maker, electrician)	☐6
Semi-skilled worker (for example: bricklayer, bus driver, cannery worker, carpenter, sheet metal worker, baker)	☐7
Unskilled worker (for example: labourer, porter, unskilled factory worker, cleaner)	☐8
Farm worker (for example: farm labourer, tractor driver)	☐9
Farm proprietor, farm manager	☐10
I have never had a job during my life	☐97

[[TN: Use the examples of occupations as specified; however you can substitute a certain occupation if it would not work in your country, e.g. because it does not fit the general description.]]

S6. [MAINSTAT] Which of the following <u>best</u> describes your current situation?
If you temporarily are not working because of <u>temporary</u> illness/parental leave/vacation/strike etc., please refer to your normal work situation.

Please tick <u>one</u> box only.

1☐   In paid work, full time (as an employee, self-employed, or working for your own family's business)

2☐   In paid work, part time (as an employee, self-employed, or working for your own family's business)

3☐   Unemployed and looking for a job

4☐   In education (not paid for by employer), in school/student/pupil even if on vacation

5☐   Apprentice or trainee

6☐   Permanently sick or disabled

7☐   Retired

8☐   Doing housework, looking after the home, children or other persons

9☐   In compulsory military service or community service

10☐   Other

<TN: If there is no such thing as compulsory military or community service in your country, please omit category 9.>

S7. [TOPBOT]   In our society, there are groups which tend to be towards the top and groups which tend to be towards the bottom. Below is a scale that runs from the top to the bottom. Where would you put yourself on this scale?

Please tick <u>one</u> box only.

S8. [PARTLIV] Do you have a spouse or a steady partner and, if yes, do you share the same household?

Please tick one box only.

1 ☐   Yes, I have a spouse/partner   → *Please continue with S9*
        and we share the same household

2 ☐   Yes, I have a spouse/partner   → *Please continue with S9*
        but we don't share the same household

3 ☐   No, I don't have a spouse/partner   → *Please continue with S11*

<TN: Country-specific terms such as 'common-law spouse' (GB) or 'Lebensgefährte' (DE) may be used here to clarify the meaning of "steady partner".>

S9. [SPJBTYPE] Here is a list of different types of jobs. Which type of job does your spouse/partner have now in his/her current job? If he/she is not working now, please tell us about his/her last job.

Please tick one box only.

	His/her current/last job
Professional and technical (for example: doctor, teacher, engineer, artist, accountant, nurse)	☐ $_1$
Higher administrative (for example: banker, executive in big business, high government official, union official)	☐ $_2$
Clerical (for example: secretary, clerk, office manager, civil servant, bookkeeper)	☐ $_3$
Sales (for example: sales manager, shop owner, shop assistant, insurance agent, buyer)	☐ $_4$
Service (for example: restaurant owner, police officer, waitress, barber, caretaker)	☐ $_5$
Skilled worker (for example: foreman, motor mechanic, printer, seamstress, tool and die maker, electrician)	☐ $_6$
Semi-skilled worker (for example: bricklayer, bus driver, cannery worker, carpenter, sheet metal worker, baker)	☐ $_7$
Unskilled worker (for example: labourer, porter, unskilled factory worker, cleaner)	☐ $_8$
Farm worker (for example: farm labourer, tractor driver)	☐ $_9$
Farm proprietor, farm manager	☐ $_{10}$
He/she has never had a job during his/her life	☐ $_{97}$

[[TN: Use the examples of occupations as specified; however you can substitute a certain occupation if it would not work in your country, e.g. because it does not fit the general description.]]

S10. [SPMAINST] Which of the following <u>best</u> describes your spouse's/partner's current situation?

If he/she temporarily is not working because of <u>temporary</u> illness/parental leave/vacation/strike etc., please refer to his/her normal work situation.

Please tick <u>one</u> box only.

1☐   In paid work, full time (as an employee, self-employed, or working for his/her own family's business)

2☐   In paid work, part time (as an employee, self-employed, or working for his/her own family's business)

3☐   Unemployed and looking for a job

4☐   In education (not paid for by employer), in school/student/pupil even if on vacation

5☐   Apprentice or trainee

6☐   Permanently sick or disabled

7☐   Retired

8☐   Doing housework, looking after the home, children or other persons

9☐   In compulsory military service or community service

10☐   Other

<TN: If there is no such thing as compulsory military or community service in your country, please omit category 9.>

S11. [HOMPOP / HHCHILDR/HHTODD/HHADULT] Including <u>yourself</u>, how many people – including children – usually live in your household?

PLEASE WRITE IN. IF THERE ARE NO CHILDREN IN THE HOUSEHOLD, PLEASE ENTER 0.	
	Number
In total, how many people live in your household?	|__|__|
And how many are children between [school age]-17 years of age?	|__|__|
And how many children are up to the age of [school age - 1] years?	|__|__|
And finally, how many are adults of 18 years and older?	|__|__|

<TN: The age to be used for distinguishing children vs. toddlers – the [school age] in square brackets – is determined by the start of compulsory schooling in your country. In a country where the primary school starts at age 7, the age categories in the question should be: "Children between 7-17 years of age" and "Children up to the age of 6".>
Note for survey research institute: minimum number of adults and of total household size is 1.
Numbers should tally. Please ask probe questions if not answered or there is a difference!>

S12. **[VOTE_LE]** **Some people don't vote nowadays for one reason or another. Did you vote in the last [country] national election in [month/year]?**

Please tick <u>one</u> box only.

1☐   Yes, I did vote

2☐   No, I did not vote

0☐   I was not eligible to vote in the last election

Concepts measured in pretest questionnaire and their relationships
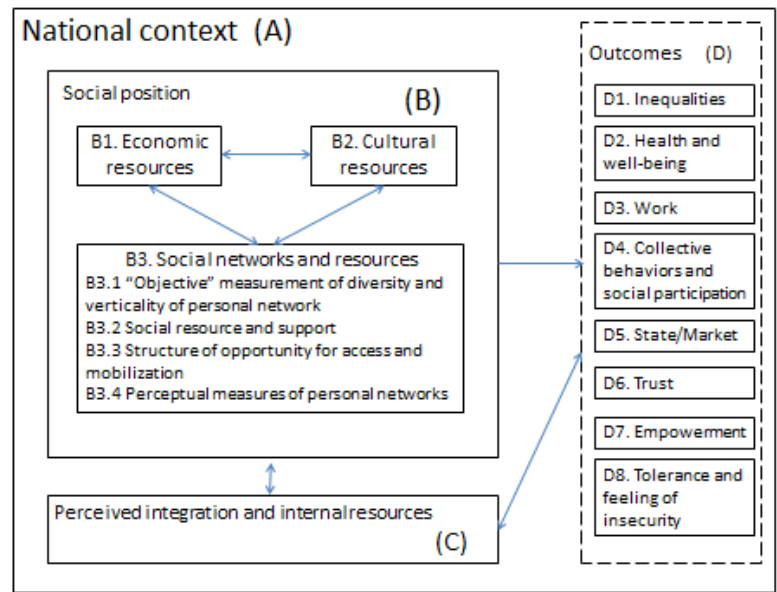
Questionnaires referred to in the pretest questionnaires

CCch: Contemporary couples in Switzerland
CL: Connected Lives
EASS12: Est Asian Social Survey 2012 on "Network Social Capital"
ESS 4: European Social Survey Round 4 2008/9
ESS 8: European Social Survey Round 4 2016/17
ISSP 2001: Social Relations and Support Systems (Social Networks II)
ISSP 2007: leisure time and sports
ISSP 2009: Social Inequality IV
ISSP 2011: Health and Health Care
LWO: Living with others: The role of interpersonal relationship in our current lives. A Swiss experiment of several social network instruments.
SILC: Statistics on Income and Living Conditions
EB 54: Eurobarometer 54
EB 63.4: Eurobarometer 63.4

Instrument referred to in the pretest questionnaire

GSE: General Self-Efficacy Scale (Schwarzer & Jerusalem 1995)
PANSE: positive and negative social exchange (Newsom et al. 2005)
PSS-4: 4-item Perceived Stress Scale (Cohen, &Williamson 1988)
SLS: the Short Loneliness Scale (Hughes et al. 2004)
UCLA-LS-R: Revised UCLA Loneliness Scale (Hawkley, Brown & Cacioppo 2005)

B   Final Questionnaire of the ISSP 2017

ISSP 2017 Module on Social Networks and Social Resources

Final source questionnaire

19.07.2016

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Notes on the 2017 module

1. All notes which are not part of the questionnaire and intended only for members are enclosed in pointed, angle brackets (for example, translation notes).

2. All the elements in questions which require local adaptation are enclosed in square brackets. These instructions often relate to adding the name of the relevant country.

3. Translation and clarification notes are provided after the relevant question.

4. In general, if translators have difficulty when translating answer codes, they should focus upon translating the concepts expressed by the codes rather than the precise words used.

5. Item history (in blue font color) is reported above question text and should be dropped in the final translated versions. The strict repetition of previous ISSP items is indicated by the "R"s, followed by the year of the ISSP module.

6. All the substantive questions must be asked in the order presented here (Q1 to Q30). Note that there is a unique filter in Q17.

7. The additional background variables (Q31 and Q32) are also compulsory and must be asked in the section on background variables. For countries that have very similar languages (Q32), the question wording has to be adapted in order to specify that they must not be considered as distinct languages.

8. If the optional items (Q33 to Q36 and SPDEGREE) are adopted, they should be asked to all respondents. The additional background variable on partner/spouse's highest level of education (SPDEGREE) must be asked in the background variable section in using country specific categories. As this question must be filtered for respondents who do not have a partner, a suggested order is to ask it just after PARTLIV.

9. This module is fielded with the usual ISSP background variables (a set of mostly demographical background variables, which are delivered as mandatory part of the national data sets; see http://www.gesis.org/issp/issp-background-variables/).

Q1. Here is a list of jobs that people you know may have. These people could be family or relatives, close friends or someone else you know. By "knowing" a person, we mean that you know him/her by name and well enough to contact him/her.

If you know several people who have a job from the list below, please only tick the box for <u>the person who you feel closest to</u>. Each of these jobs could be held by a woman or a man.

Do you know a woman or a man who is…?

	PLEASE TICK <u>ONE</u> BOX ON EACH LINE				
	Family or relative	**Close friend**	**Someone else I know**	**No one**	*Can't choose*
a. a bus/lorry driver	1	2	3	4	8
b. a senior executive of a large company	1	2	3	4	8
c. a home or office cleaner	1	2	3	4	8
d. a hairdresser/barber	1	2	3	4	8
e. a human resource manager/personnel manager	1	2	3	4	8
f. a lawyer	1	2	3	4	8
g. a car mechanic	1	2	3	4	8
h. a nurse	1	2	3	4	8
i. a police officer	1	2	3	4	8
j. a school teacher	1	2	3	4	8

<TN: "Police officer" must be translated in a way that it refers to all women and men doing any type of police work (e.g. traffic enforcement, street patrol, investigation).>
<TN: "A school teacher" must be translated so that it refers to middle education teaching, i.e. to a school teacher of teenagers, aged between 12 and 15 years >.

<TN: In many languages there are distinct job titles for females and males who hold a job (e.g. waitress/waiter).
> *a) Where it is appropriate, use only the male form assuming it is the generic title.*
> *b) Use both the female and male forms only if necessary to make it clear that both women and men can hold the occupation.*
> *In any case it should be clear that all the occupations can be held by both females and males. >*

Q2. To what extent do you agree or disagree with the following statements?

PLEASE TICK <u>ONE</u> BOX ON EACH LINE

	Strongly agree	Agree	Neither agree nor disagree	Disagree	Strongly disagree	*Can't choose*
(R ISSP2009, Q6a) a. Differences in income in [COUNTRY] are too large.	1	2	3	4	5	8
b. For a society to be fair, differences in people's standard of living should be small.	1	2	3	4	5	8
(R ISSP2009, Q6b) c. It is the responsibility of the government to reduce the differences in income between people with high incomes and those with low incomes.	1	2	3	4	5	8
d. The social benefits in [COUNTRY] make people lazy.	1	2	3	4	5	8

<TN item b: "Fair" must be translated in the sense of a just society>
<TN item b: "Standard of living": people's material circumstances>
<TN items c: "Government" might also mean "state", "public sector"; both central and local government are included.>
<TN item d: "Social benefits" must be translated so that it refers to social welfare payments provided by any level of government, local to national. It should not refer to services.

Q3. People have different opinions on who should provide services in [COUNTRY]. Who do you think should primarily provide health care for the sick?

PLEASE TICK ONE BOX ONLY

Government | 1

Private companies/for-profit organisations | 2

Non-profit organisations/charities/cooperatives | 3

Religious organisations | 4

Family, relatives or friends | 5

Can't choose | 8

<TN: "Government" might also mean "state", "public sector"; both central or local government is included.>

<TN: "Religious organizations": if necessary include "churches", "synagogues", etc.>

<TN: "provide" is about providing the service, it is not about funding.>

Q4. And, who do you think should primarily provide care for older people?

PLEASE TICK ONE BOX ONLY

Government | 1

Private companies/for-profit organisations | 2

Non-profit organisations/charities/cooperatives | 3

Religious organisations | 4

Family, relatives or friends | 5

Can't choose | 8

<TN: "Government" might also mean "state", "public sector"; both central and local government is included.>

<TN: "Religious organizations": if necessary include "churches", "synagogues", etc.>

<TN: "provide" is about providing the service, it is not about funding.>

Some activities are done with others in organised groups, clubs or associations. The next questions are about your participation, if any, in such activities.

Q5. In the past 12 months, how often, if at all, have you taken part in activities…?

<table>
<tr><td colspan="7" style="text-align:center">PLEASE TICK <u>ONE</u> BOX ON EACH LINE</td></tr>
</table>

	Once a week or more	One to three times a month	Several times in the past year	Once in the past year	Never	*Can't choose*
a. … of groups or associations for leisure, sports or culture?	1	2	3	4	5	98
b. … of political parties, political groups or political associations?	1	2	3	4	5	98
c. … of charitable or religious organisations that do voluntary work?	1	2	3	4	5	98

<TN: "Groups" can be translated by "clubs" or "organized groups". It must not be translated in a way that refers only to informal groups, such as friends going to the pub.>

(R ISSP2001, Q38 optional)

Q6. To what extent do you agree or disagree with the following statement? People like me don't have any say about what the government does.

<table>
<tr><td colspan="2" style="text-align:center">PLEASE TICK <u>ONE</u> BOX ONLY</td></tr>
</table>

Strongly agree	1
Agree	2
Neither agree nor disagree	3
Disagree	4
Strongly disagree	5
Can't choose	8

This section is about who you would turn to for help in different situations, if you needed it.

Q7. For each of the following situations, please tick one box to say who you would turn to first. If there are several people you are equally likely to turn to, please tick the box for the one you feel closest to.

PLEASE TICK <u>ONE</u> BOX ON EACH LINE

Who would you turn to first to …	Close family member	More distant family member	Close friend	Neigh-bour	Someone I work with	Someone else	No one	Can't choose
(Adapted from ISSP86, Q10a) a. … help you with a household or a garden job that you can't do yourself?	1	2	3	4	5	6	7	8
(Adapted from ISSP86, Q11a; ISSP01, Q22) b. … help you around your home if you were sick and had to stay in bed for a few days?	1	2	3	4	5	6	7	8
(Adapted from ISSP86, Q14a; ISSP01, Q26) c. … be there for you if you felt a bit down or depressed and wanted to talk about it?	1	2	3	4	5	6	7	8
d. … give you advice about family problems?	1	2	3	4	5	6	7	8
e. … enjoy a pleasant social occasion with ?	1	2	3	4	5	6	7	8

Q8. For each of the following situations, please tick one box to say who or where you would turn to first for help. If there are several choices you are equally likely to make, please tick the box for the one you would try first.

PLEASE TICK <u>ONE</u> BOX ON EACH LINE

Who or where would you turn to <u>first</u> to …	**Family members or close friends**	**Other persons**	**Private companies**	**Public services**	**Non-profit or religious organi-sations**	**Other organi-sations**	**No person or organi-sation**	*Can't choose*
(Adapted from ISSP86, Q12a; ISSP01, Q24) a. … help you if you needed to borrow a large sum of money?	1	2	3	4	5	6	7	98
b. … help you if you needed to find a job?	1	2	3	4	5	6	7	98
c. … help you with administrative problems or official paperwork?	1	2	3	4	5	6	7	98
d. … help you if you needed to find a place to live?	1	2	3	4	5	6	7	98
e. … look after you if you were seriously ill?	1	2	3	4	5	6	7	98

<TN: "Private companies" refer to profit-organizations that provide services that one has to pay for.>

<TN: "Public services" means services that government or state is responsible for providing.>

<TN item c: "administrative problems or official paperwork" means all the problems or paperwork that one encounters in dealing with government, the state, or agencies, including forms one has to fill in, such as taxes or official forms, applications, contracts and the like. >

<TN item d: "a place to live" means here a "new home"; it could be temporary (for a while) or permanent (for a longer term). Help in finding a new home might be either practical or financial.>

Q9. The next questions are about how you feel about different aspects of your life. For each one, please indicate how often during the <u>past 4 weeks</u> you have felt that way.

PLEASE TICK <u>ONE</u> BOX ON EACH LINE						

How often in the past 4 weeks have you felt that…	Never	Rarely	Sometimes	Often	Very often	*Can't choose*
a. … you lack companionship?	1	2	3	4	5	8
b. … you are isolated from others?	1	2	3	4	5	8
c. … you are left out?	1	2	3	4	5	8

<TN item c: "left out" in the sense that one is excluded for participating in activities that others engage in.>

(R ISSP2014, Q47)

Q10. How often do you think that people would try to take advantage of you if they got the chance, and how often would they try to be fair?

PLEASE TICK <u>ONE</u> BOX ONLY

Try to take advantage almost all of the time	1
Try to take advantage most of the time	2
Try to be fair most of the time	3
Try to be fair almost all of the time	4
Can't choose	8

(R ISSP 2014, Q48)

Q11. Generally speaking, would you say that people can be trusted or that you can't be too careful in dealing with people?

PLEASE TICK <u>ONE</u> BOX ONLY

People can almost always be trusted	1
People can usually be trusted	2
You usually can't be too careful in dealing with people	3
You almost always can't be too careful in dealing with people	4
Can't choose	8

Q12. Using the following scale ranging from 0 to 10, where 0 means "No trust at all" and 10 means "Complete trust", please indicate how much trust you personally have in…?

PLEASE TICK ONE BOX ON EACH LINE

How much trust do you personally have in …	No trust at all										Complete trust	Can't choose
	00	01	02	03	04	05	06	07	08	09	10	
a. ... [COUNTRY]'s courts	0	1	2	3	4	5	6	7	8	9	10	98
(Adapted from ISSP2016, Q19) b. … major private companies in [COUNTRY]	0	1	2	3	4	5	6	7	8	9	10	98

Q13. To what extent do you agree or disagree with the following statements?

PLEASE TICK ONE BOX ON EACH LINE

	Strongly agree	Agree	Neither agree nor disagree	Disagree	Strongly disagree	Can't choose
(R ISSP2001, Q31a) a. Adult children have a duty to look after their elderly parents.	1	2	3	4	5	8
(R ISSP2001, Q31b) b. You should take care of yourself and your family first, before helping other people.	1	2	3	4	5	8
(R ISSP2001, Q31c) c. People who are better off should help friends who are less well off.	1	2	3	4	5	8

Q14. In general, do your family members put pressure on you about the way you live or organize your personal life?

PLEASE TICK <u>ONE</u> BOX ONLY

No, never | 1
Yes, but rarely | 2
Yes, sometimes | 3
Yes, often | 4
Yes, very often. | 5
Can't choose | 8

<TN: "pressure"has to be translated in the sense of normative pressure (e.g. either preventing someone from doing things or insisting that they do things)>

Q15. Do you feel that your family, relatives and/or friends make too many demands on you?

PLEASE TICK <u>ONE</u> BOX ONLY

No, never | 1
Yes, but rarely | 2
Yes, sometimes | 3
Yes, often | 4
Yes, very often. | 5
Can't choose | 8

Q16. Thinking about the important people in your life, such as your spouse or partner, your family members, or close friends, how often <u>in the past 4 weeks</u> did any of these people act angry or upset with you?

PLEASE TICK <u>ONE</u> BOX ONLY

Never | 1
Rarely | 2
Sometimes | 3
Often | 4
Very often. | 5
Can't choose | 8

<TN: "Family members" include in-laws>

The following questions are about your social activities.

Q17. How often do you go out to eat or drink with three or more friends or acquaintances who are not family members?

PLEASE TICK <u>ONE</u> BOX ONLY		
Daily	1	Answer question Q18
Several times a week	2	Answer question Q18
Once a week	3	Answer question Q18
Two to three times a month	4	Answer question Q18
Once a month	5	Answer question Q18
Several times a year	6	Answer question Q18
Less often	7	Answer question Q18
Never	8	Go to question Q19
Can't choose	98	Answer question Q18

Q18. At these occasions, how often do you make new friends or acquaintances?

PLEASE TICK <u>ONE</u> BOX ONLY	
Never	1
Rarely	2
Sometimes	3
Often	4
Very often.	5
Can't choose	8

(Adapted from ISSP2014, Q22)

Q19. Please indicate about how many people do you have contact with on a typical weekday irrespective of whether you know them or not. Include anyone you chat with, talk to, or text, either face-to-face, by phone, internet or any other communication device.

PLEASE TICK <u>ONE</u> BOX ONLY

0-4 people	1
5-9	2
10-19	3
20-49	4
50-99	5
100 or more	6
Can't choose	8

Q20. About how many of these people do you see face-to-face on a typical weekday?

PLEASE TICK <u>ONE</u> BOX ONLY

All or almost all of them	1
Most of them	2
About half of them	3
Some of them	4
None or almost none of them	5
Can't choose	8

Q21. Please think about the parent you have contact with most frequently: How often do you have contact with that parent, either face-to-face, by phone, internet or any other communication device?

PLEASE TICK <u>ONE</u> BOX ONLY

My parents are no longer alive	95
The parent I have contact with the most frequently lives with me	96
Daily	1
Several times a week	2
Once a week	3
Two to three times a month	4
Once a month	5
Several times a year	6
Less often	7
Never	8

Q22. Think about the brother or sister you have contact with most frequently: How often do you have contact with that brother or sister, either face-to-face, by phone, internet or any other communication device?

PLEASE TICK <u>ONE</u> BOX ONLY

I do not have any brothers and sisters	95
The brother or sister I have contact with the most frequently lives with me	96
Daily	1
Several times a week	2
Once a week	3
Two to three times a month	4
Once a month	5
Several times a year	6
Less often	7
Never	8

Q23. Think about your adult child you have contact with most frequently: How often do you have contact with this child aged at least 18, either face-to-face, by phone, internet or any other communication device?

PLEASE TICK <u>ONE</u> BOX ONLY

I do not have any adult children	95
The adult child I have contact with the most frequently lives with me	96
Daily	1
Several times a week	2
Once a week	3
Two to three times a month	4
Once a month	5
Several times a year	6
Less often	7
Never	8

Q24. Now, think about the other family member you have contact with most frequently, aside of your spouse or partner, parents, siblings or adult children. How often do you have contact with that family member, either face-to-face, by phone, internet or any other communication device?

PLEASE TICK <u>ONE</u> BOX ONLY

I do not have other family members	95
The other family member I have contact with the most frequently lives with me	96
Daily	1
Several times a week	2
Once a week	3
Two to three times a month	4
Once a month	5
Several times a year	6
Less often	7
Never	8

Q25. And, think about the close friend you have contact with most frequently: How often do you have contact with that close friend, either face-to-face, by phone, internet or any other communication device?

PLEASE TICK <u>ONE</u> BOX ONLY

I do not have any close friends	95
The close friend I have contact with the most frequently lives with me	96
Daily	1
Several times a week	2
Once a week	3
Two to three times a month	4
Once a month	5
Several times a year	6
Less often	7
Never	8

Q26. Think now of your contact with <u>all</u> of your family members and close friends. How much of it is through text messages, mobile phones, or other communication devices that use the internet?

PLEASE TICK <u>ONE</u> BOX ONLY

All or almost all of it	1
Most of it	2
About half of it	3
Some of it	4
None or almost none of it	5
I do not use any of these devices	7
Can't choose	8

Now, we would like to ask you some questions about other aspects of your life.

(R ISSP2007, Q17; ISSP2011, Q26)

Q27. In general, would you say your health is…

PLEASE TICK <u>ONE</u> BOX ONLY

Excellent	1
Very good	2
Good	3
Fair	4
Poor	5
Can't choose	8

<TN: This refers to both physical and mental health.>

Q28. During the <u>past 4 weeks</u> how often…

PLEASE TICK <u>ONE</u> BOX ON EACH LINE

	Never	Rarely	Sometimes	Often	Very often	Can't choose
(R ISSP2011, Q25c) a. … have you felt unhappy and depressed?	1	2	3	4	5	8
b. … have you felt difficulties were piling up so high that you could not overcome them?	1	2	3	4	5	8

Q29. To what extent is the following statement true or untrue for you?

It is easy for me to accomplish my goals.

PLEASE TICK <u>ONE</u> BOX ONLY

Completely true	1
Mostly true	2
Somewhat true	3
Neither true, nor untrue	4
Somewhat untrue	5
Mostly untrue	6
Completely untrue	7
Can't choose	8

(Adapted from ISSP2012, Q24)

Q30. All things considered, how satisfied are you with your life as a whole nowadays?

PLEASE TICK <u>ONE</u> BOX ONLY

Completely satisfied □ 1

Very satisfied □ 2

Fairly satisfied □ 3

Neither satisfied nor dissatisfied □ 4

Fairly dissatisfied □ 5

Very dissatisfied □ 6

Completely dissatisfied □ 7

Can't choose □ 8

ADDITIONAL OBLIGATORY BACKGROUND VARIABLES

Q31. Thinking of your household's <u>total</u> income, including all the sources of income of all the members who contribute to it, how difficult or easy is it currently for your household to make ends meet?

PLEASE TICK <u>ONE</u> BOX ONLY

Very difficult □₁

Fairly difficult □₂

Neither easy nor difficult □₃

Fairly easy □₄

Very easy □₅

Can't choose □₈

<TN on "make ends meet": As making ends meet does not exist in some languages, it can be translated by "pay for your usual necessary expenses">

Q32. How many languages do you speak well enough to hold a conversation in, including the language(s) you speak at home?

PLEASE TICK <u>ONE</u> BOX ONLY

One language □₁

Two languages □₂

Three languages □₃

Four or more languages □₄

< Note for questionnaire designer on "languages": For countries that have very similar languages, specify that very similar languages or dialects must not be considered as distinct languages, ex. Danish and Norwegian, German and Swiss-German, or Czech and Slovakian languages must be specified as counting as one language. Please adapt the question wording accordingly if needed.>

OPTIONAL QUESTIONS

Q33. To what extent do you agree or disagree with the following statements?

PLEASE TICK <u>ONE</u> BOX ON EACH LINE

	Strongly agree	Agree	Neither agree nor disagree	Disagree	Strongly disagree	Can't choose
(R ISSP2001, Q31d) a. It is all right to develop friendships with people just because they can be of use to you.	1	2	3	4	5	8
b. When another person does a favour for you, you should feel obligated to pay that person back.	1	2	3	4	5	8

< *TN item b: "pay" must be translated in a way that it does <u>not</u> mean in money; "pay back" means here reciprocate, return a favour.*>

The next section is about your social activities and the contact you might have with specific people.

Q34. When you go out to eat or drink with three or more friends or acquaintances who are not family members, how often do you experience the following situations?

PLEASE TICK <u>ONE</u> BOX ON EACH LINE

How often …	Never	Rarely	Sometimes	Often	Very often	Can't choose	It does not apply
a. … does one person dominate the conversation at these occasions?	1	2	3	4	5	8	0
b. … is consideration given to who sits near whom?	1	2	3	4	5	8	0

Q35. Please think about the person from your home town or region of origin, other than your family members, you have contact with most frequently. How often do you have contact with that person, either face-to-face, by phone, internet or any other communication device?

PLEASE TICK <u>ONE</u> BOX ONLY

Daily ☐ 1

Several times a week ☐ 2

Once a week ☐ 3

Two to three times a month ☐ 4

Once a month ☐ 5

Several times a year ☐ 6

Less often ☐ 7

Never ☐ 8

< TN: "person from your home town or region of origin" means people (not family members) coming from the respondent's place of birth and where she or he grew up.>

Q36. Now think about the person from your religious community, other than your family members, you have contact with most frequently. How often do you have contact with that person, either face-to-face, by phone, internet or any other communication device?

PLEASE TICK <u>ONE</u> BOX ONLY

I do not belong to any religious community ☐ 95

Daily ☐ 1

Several times a week ☐ 2

Once a week ☐ 3

Two to three times a month ☐ 4

Once a month ☐ 5

Several times a year ☐ 6

Less often ☐ 7

Never ☐ 8

< TN: "Religious community" must be translated in a way that it does not refer to the broad general religious affiliation, but means the local religious parish, where people mix and interact with others in a temple, church or mosque.>

> SUPPLEMENTARY OPTIONAL BACKGROUND VARIABLE

(Comparative SPOUSE DEGREE – derived from country-specific variable)

SPDEGREE. What is the highest level of education that your spouse or partner attained?

No formal education	0
Primary school	1
Lower secondary	2
Upper secondary	3
Post-secondary, non-tertiary	4
Lower level tertiary	5
Upper level tertiary	6
No answer	9

<*Note for questionnaire designer*:
- *SPDEGREE must not be simply translated; please use country-specific degrees to cover the meaning of the response categories (the response categories and the recoding scheme must be similar to DEGREE).*
- *Suggested recommendation: Ask SPDEGREE after PARTLIV and before SPWRKST>*

This publication documents the development of the ISSP module for the year 2017 titled "Social Networks and Social Resources". The authors begin by discussing instruments that have been developed to measure social relationships and networks. Subsequently, the conceptual framework underlying the module is presented. For the assessment and selection of items for the final module the authors can draw on a rich set of comparative survey data from pretests in China, Taiwan, France, Germany, Switzerland, Turkey, Great Britain, United States and Venezuela. Based on these data measures for all concepts of the theoretical model are derived and preliminary analysis of their validity, reliability and cross-national equivalence are performed. The publication ends with a description of items finally selected for the 2017 ISSP module and some suggestions for analyzing these data.

Diese Publikation dokumentiert die Entwicklung des ISSP-Moduls für das Jahr 2017 mit dem Titel „Social Networks and Social Resources". Die Autoren diskutieren zunächst Instrumente, die zur Messung sozialer Beziehungen und Netzwerke entwickelt wurden. Anschließend wird der dem Modul zugrunde liegende konzeptionelle Rahmen vorgestellt. Für die Bewertung und Auswahl der Fragen für das endgültige Modul können die Autoren auf einen umfangreichen Satz vergleichender Umfragedaten aus Pretests in China, Taiwan, Frankreich, Deutschland, der Schweiz, der Türkei, Großbritannien, den USA und Venezuela zurückgreifen. Basierend auf diesen Daten werden Messungen für alle Konzepte des theoretischen Modells abgeleitet und eine vorläufige Analyse ihrer Gültigkeit, Zuverlässigkeit und länderübergreifenden Äquivalenz durchgeführt. Die Veröffentlichung endet mit einer Beschreibung der schließlich für das ISSP-Modul 2017 ausgewählten Fragen und einigen Vorschlägen zur Analyse dieser Daten.

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