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The ISSP 2017 social networks and social resources module

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ABSTRACT

This special issue introduces the 2017 Social Networks and Social Resources module of the *International Social Survey Program* (ISSP). This module has been newly developed based on specific, up-to-date theoretical and methodological foundations. Within certain limits the designers of this module aimed at allowing comparisons with the previously fielded ISSP modules on Social Networks from 1986 and 2001. The module encompasses measures on social capital and social resources, assessed by both a position generator and questions on social resources coming from network members or formal organizations. They are complemented by other important social network dimensions capturing network structure and opportunities to access and mobilize social relationships. A strength of the new module is to assess multiple dimensions of social networks and social resources, which are crucial either for instrumental or expressive outcomes also introduced in the survey. The special issue includes first an introduction presenting the motivations behind the 2017 new module on Social Networks and Social Resources, the underlying model of the final questionnaire, a description focusing on the core of the social networks and resources measurement with some descriptive results on social capital, network support and sociability, and open the discussion toward some research questions it allows to examine in a comparative perspective.

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The ISSP 2017 module on social networks and social resources

The 2017 module of the *International Social Survey Program* (ISSP) titled “Social Networks and Social Resources” includes measures of diversity and verticality of personal networks through a position generator, items assessing social resources and support from network members as well as from organizations, measures of contact frequency with family and friends, and questions on access and mobilization of social relations. In addition to this core measurement of social networks and social resources, complementary measures of strain and conflict in social relations, as well as measures

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of norms and obligations, notably reciprocity, are included in the module. Furthermore the module contains measures of economic and cultural capital. These measures assessing the social position of individuals in a given society are complemented by items on perceived integration and a series of outcome measures, namely inequalities, health and well-being, attitudes toward state and market, institutional and interpersonal trust, and social participation and political efficacy. The papers in the current Special Issue and the ones which follow in the next volume of the *International Journal of Sociology* are the first to explore the many possibilities these new data offer to scholars.

The ISSP is an international collaborative survey program on attitudes, beliefs and behaviors with respect to various topics in the social sciences. As of 2019, the ISSP gathers 42 member countries worldwide. For a more detailed description of the ISSP in general, please see, for example, the first special issue on the ISSP in this journal (Scholz et al. 2017), or Ludwig (2017) and Haller, Jowell, and Smith (2009), as well as the ISSP website (<http://www.issp.org>).

ISSP is committed to running one module, i.e. one survey, per year. The development of the source questionnaire for each module is a three year process. A general introduction to the development process is documented by Scholz et al. (2014). A detailed report on the development of the 2017 module on Social Networks and Social Resources as well as exploratory analysis of a preparatory study has been published by Joye, Sapin, and Wolf (2019a). Several reasons motivated the ISSP to develop a new module on networks and social relations. The first reason is that ISSP had previously developed two modules on this topic, one in 1986 (ISSP Research Group 1988) and a repeated module in 2001 (ISSP Research Group 2003), but had then discontinued to field them. The second reason was that very promising new measurement models and theories had been developed in the field of networks and social resources and the ISSP thought it worthwhile to extend its existing module. Thus, in developing the 2017 module the Drafting Group has strived to retain measurement goals and indicators from the earlier network modules if they seemed still relevant and appropriate but extended these with new, innovative measures. That is, rather than a strict replication of these earlier modules the Drafting Group's main aim was for the module to reflect new theoretical insights and methodological approaches.

There is indeed a growing interest in sociology for considering “lives in contexts”, by focusing on the way individuals' actions and behaviors are influenced by their personal networks and communities in which they are embedded. The life-course paradigm (Levy and the Pavie Team 2005) and other theoretical and methodological schools in social sciences (Freeman 2004) have insisted on the importance of this “social embeddedness”, in other words, on the web of social relations and the support and resources individuals can access through them (Bourdieu 1986; Lin 1982). From this perspective “social resources” or “individual social capital” can be considered as supplementing individual economic and cultural capital. Another motive for redesigning the network module is related to social change. Through processes associated with modernization, traditional collectives such as kinship group or neighborhoods have lost their relevance (Simmel, 1922), leaving individuals with the necessity to be agents in choosing and building their social network. Currently, we witness the rise of economic liberalism, associated with the reduction of various forms of welfare provision in many countries. These developments underline the importance of individual social capital, or the

resources individuals can access through their personal relations. The foremost question becomes then whether these resources can (partly) take over functions previously provided by the welfare state and what happens to those who are isolated or have only limited social resources. In parallel with the growing importance of social networks and social resources, methodological advances were made in their measurement (Marsden 2011). Instruments measuring social networks typically are extensive and planned to assess network aspects in relation to specific outcome variables, e.g. finding a job. One of the challenges of drafting this ISSP module, limited to sixty items, is to select the most relevant aspects of social networks and social resources for analyzing multiple outcomes, in particular both instrumental and affective outcomes (Häuberer 2011) in a way that leads to cross-nationally meaningful and comparable results.

This article is structured as follows: We first discuss the underlying model of the final questionnaire for the 2017 module on Social Networks and Social Resources, taking into account the influence of national context, the individual social capital with other types of capital, as well as crucial social and political outcomes. After briefly describing the ISSP 2017 data and elements of method for our analyses, we present the core of the social networks and social resources measurement. A position generator provides objective measures of diversity and verticality in personal network; a resource generator allows to assess from one side the availability of network support and, from the other side, the interplay of network support in relation to support provided by organizations; finally, a series of measures on contact frequency, notably with family and friends, complement these two instruments, aiming to assess the structure of opportunity for creating, developing, and maintaining the social resources available for individuals. For each network instrument, global indicators are built to explore broad trends within the ISSP national contexts, according to social structuring factors such as social classes, age or gender. Finally, the last section is dedicated to the analytical potential and the multitude of research questions that this new module on Social Networks and Social Resources allow to develop. Some further examples are given by the articles included in this special issue.

The conceptual model of the ISSP 2017 module

The module was developed with a theoretical model in mind that would allow the analyses of the interrelation of economic, cultural and social capital, the correspondence between factual relations and perceived integration as well as their effects on a number of outcome variables representing micro-level characteristics as well as more structural aspects of social position and context (cf. Figure 1). We were mostly interested in social capital and how it may be combined with economic and cultural capital within and across countries. We hypothesized that the relative importance of social capital and its combination with other types of capital is influenced by the interplay of the welfare state with the market and by the level of trust and social inequalities within societies. The Drafting Group decided that for a good measurement of social networks and social resources in ISSP, an approach through four axes was needed: 1) ‘objective’ measures of diversity and hierarchy in personal social networks; 2) measures on social resources and support; 3) indicators of the structure of opportunity for access and

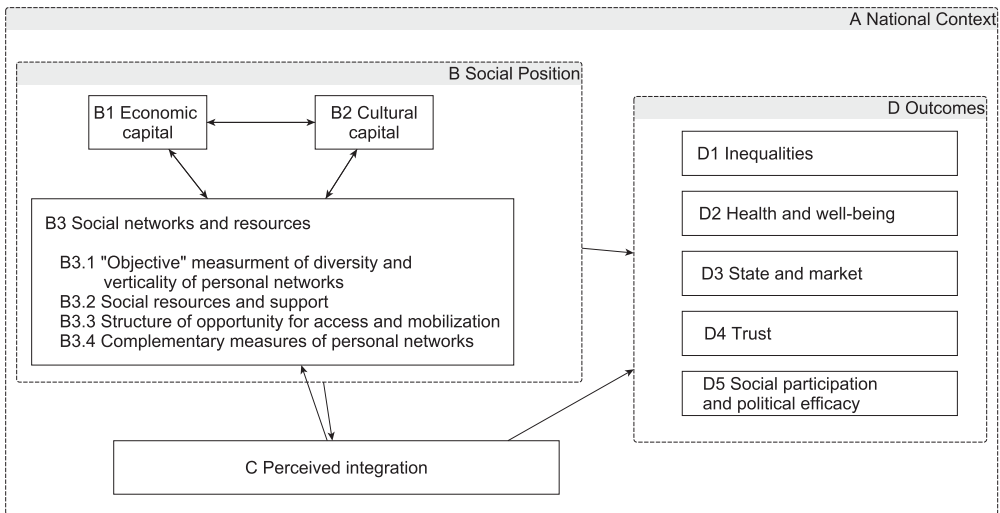


Figure 1. Conceptual overview of the structure and analytical potential of the 2017 module.

mobilization of social resources; and, finally, 4) complementary measures tackling additional features of personal networks. The module allows to examine the effect of social networks and social resources on the following major outcomes: 1) perception and justification of social inequalities; 2) health and well-being; 3) attitudes toward state and market; 4) trust in others and institutions; and 5) social participation and political efficacy.

Three core questions have theoretically driven the elaboration of the ISSP 2017 module on social networks and social resources. Its conceptual model is shown in the [Figure 1](#). The first core question concerns the access to and the availability of resources between different strata within an institutional context: How do social networks and resources vary among social groups? Is there an accumulation of all types of resources in some strata? Do some processes of compensation between economic, cultural and social capital come into play? This first core question is directly related to the dimensions of social positions and social inequalities in societies. These questionings are linked to Box B in [Figure 1](#). Another issue involves the effects of social networks and social resources. What effects do social networks and social resources have on important social and political outcomes (represented in Box D)? This issue is represented by the arrow linking Box B, focusing on the diverse types of resources, and Box D. The last core question focuses on the importance of the national/institutional context. How do differences in institutional settings moderate relations between social network resources and outcomes? This issue is represented by the large Box A “National Context” in [Figure 1](#). In addition, the association between social networks and resources and outcomes are to some extent mediated by the perceived integration. The subjective evaluation of social integration varies between individuals with a similar degree of social embeddedness and might influence their instrumental or expressive actions – for this reason perceived integration has an intermediary position in [Figure 1](#).

We are aware that social processes cannot easily be reduced to diagrams of boxes connected by arrows to show the direction of causal links. [Figure 1](#) aims to give a schematic representation first of core concepts necessary to study social networks and social resources today; second it sketches possible relationships between these concepts taking the institutional context into account. The arrows certainly do not always imply a directional causality. We should also underline that some outcomes, such as trust in others or institutions, can be considered, at an aggregate level, as some macro-structural factors.

The measurement of social networks and social resources is articulated around four aspects (Box B3 in [Figure 1](#)). The module includes some ‘objective’ measures of diversity and hierarchy in personal social networks, assessed by a position generator (B3.1), some measures on social resources and support, measured by a generator of resources (B3.2), as well as several indicators of the structure of opportunity for access and the mobilization of social resources (B3.3), and, finally, complementary measures tackling additional features of personal networks (B3.4). The first three aspects consist of what we consider to be the core measurement of social networks and social resources. They are presented with further details in a next section.

The complementary measures of personal network are strain and conflict in social relations and norms of obligations. Social capital is usually considered as a collection of ‘positive’ social resources. However, interpersonal relationships occasionally cause severe restrictions on goal attainment (for example, Heller and Rook [1997](#); Portes [1998](#); Newsom et al. [2005](#)). Social strain and social negativity in the personal network are particularly important to measure with regard to expressive outcomes, such as health and well-being (Rook [1998](#); Wolf [2006](#); Sapin, Widmer and Iglesias [2016](#)). Social strain and interpersonal conflict might be particularly manifest in weaker groups or for individuals with lower status. Social strain and conflicts in personal networks are also often related to precarious life conditions (Sapin, Widmer, and Radulescu [2008](#)) and un-employment, as well as irregular employment. Finally, social strain precludes a rational planning of life, which is a necessary condition of adaptation within a modern economy (Wilson [1991](#)). Social strain is measured by three items: one question on perceived social demand (question Q14 in the source questionnaire) repeated from ISSP 2001; one question on control exerted by kin and close network members (Q15), and one item measuring negative exchanges in interpersonal relationships (Q16; from PANSE, Newsom et al. [2005](#)). In addition, social relations are governed by some norms of exchange, obligation and reciprocity. Norms of obligation, such as governing family solidarity, are distinct across social contexts, but norms also regulate relationships with friends as well as with people less close. The ISSP 2017 module includes three items on norms of obligation and solidarity within family as well as with friends repeated from ISSP 2001 (Q13a,b,c). Norms of reciprocity is a fundamental social value, ensuring to be provided with support in case of need. The amount and use of networks’ resources depends on the belief that people might have some form of return on their investment. Two optional items measuring norms of reciprocity are included (Q33a,b): the first one is a repeated item of ISSP 2001, while the second is a new one, inspired by a scale on personal norm of reciprocity (Perugini et al. [2003](#)).

Social networks and social resources matter for many individual actions, attitudes and behaviors. For a large usage of the ISSP 2017 module, the Drafting Group agreed to the importance of including a large scope of outcome variables. The perception of social inequalities (D1 in [Figure 1](#)) is important to consider with regard to segregated contexts. How inequalities in social relations are perceived, evaluated and justified; and how do they vary within national systems by social position and across countries by institutional contexts? The degree of social integration or fragmentation of society and the varying role of social networks in different national contexts should influence the perception of social inequalities, as well as the attitude toward the redistributive role of government. There is a large range of social inequalities; however, income inequalities are significant in all societies. The extent to which income inequalities are tolerated relates to personal situations, social relations and social contexts. Depending on national contexts, the level of segregation in social relations and social inequalities, the role of the state versus that of the market, individuals from distinct social positions might perceive and justify social inequalities in distinct ways. Too much perceived inequalities or a feeling of inequity in the distribution of resources can endanger trust and solidarity in a given society. The module includes two items on the perception of social inequality (Q2a,b, repeated from ISSP 2009) and two on their justification (Q2c,d, from the ESS round 4).

Health, well-being and stress (D2) are important to measure because they reflect the nature of the interface between individuals and their social environment. Research has indeed shown that social factors that are related to the degree of social inequalities are important determinants of health in rich countries ([Wilkinson 2005](#)). Social integration and social support have a positive impact on psychological and physical health ([Cohen and Wills 1985](#); [Berkman et al. 2000](#); [Cohen, Underwood, and Gottlieb 2000](#); [Kawachi and Berkman 2001](#)). A lack of social support, bad social relationships, family conflict, 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 (Q27; from ISSP 2011). Well-being and stress will be approached by three questions: one on depressive mood (Q28a; from ISSP 2011); one item on the feeling that one cannot overcome difficulties (Q28b; from the Stress Perceived Scale, [Cohen and Williamson 1988](#)) and, from an opposite perspective, by one question on the ease of accomplishing personal goals (Q29; inspired from the General Self-Efficacy Scale, [Schwarzer and Jerusalem 1995](#)). Finally, a question evaluates satisfaction with life in general (Q30).

The degree of social integration or fragmentation of society and the varying role of social networks in different national contexts should influence the perception of social inequalities, as well as the attitude toward the redistributive role of government. Assessing some dimensions of attitudes concerning the state versus market (D3), notably on care responsibilities, in complement to measures of norms of obligation allow to analysis the role of state, market versus personal and family networks by institutional context and welfare state regimes. In addition to the question on formal and informal support (core network measurement B3.2, presented in Section the core of the social network and social resources measurement), and to the perception and justification of social inequality, two questions further assess the relationship between state and market:

who should primarily provide care for the sick (Q3, from ISSP 2016) and a decent standard of living for the older people (Q4, from ISSP 2016).

Indicators of trust in others and in institutions (D4 in [Figure 1](#)) supplement the network measures of social capital in order to examine 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 minimizing misanthropy and increasing interpersonal trust and related evaluations of other people. Two items measure trust in others (see Q10 and Q11, repeated from ISSP 2014). With regard to political trust, its foundations are grounded on the perceived legitimacy of institutions, their competence and ability to perform efficiently (Levi 1998). Corruption is a challenge for institutional trust. Accordingly, trust in institutions is strongly related with the satisfaction with the way governments act and with how democracy works in countries. The relation between social networks, social trust and trust in institutions is also significant for analyzing citizens' opportunity to influence the state power and state regulation. Trust in institutions is measured by two items: trust in courts and trust in major private companies (Q12a,b).

Social participation and political efficacy (D5) is closely related to social networks. In a standard sociological understanding, social participation refers to forms of an individual's engagement in public spheres as local community, civil society organizations, and political activities. An individual's engagement in such forms of participation is, we argue, affected by her social network, because it is the social network through which information is learned, interest generated, resources mobilized, and influence felt. One proposition is that the greater the diversity of one's social network, the greater is the amount of information, interests, resources, and influence obtained, and the more likely it is that one engages in collective and social activities. Likewise, the diversity of interpersonal relationships, as well as the dimension of trust, influences political efficacy. Four questions are dedicated to assess social participation and political efficacy: the participation in groups or organization for leisure, sport or cultural activities; in social and political activities; the voluntary engagement in charitable or religious organizations (Q5a,b,c); and the perception of having any say about what the government does (Q6, repeated from ISSP 2001).

The association between social networks and resources with these diverse outcomes is potentially mediated by perceived integration. Three items are dedicated to capture the perceived degree of social integration in addition to the 'objective' measures of social connectedness. They are based on the well-established and validated Short Loneliness Scale (SLS, Hughes et al. 2004). The three items of the Short Loneliness Scale measure the feeling of being isolated from intimates, a dimension that is particularly crucial to assessing outcomes such as health and well-being or social participation and political efficacy (question Q9abc).

The interplay between social network resources with economic and cultural ones (B1/B2 in [Figure 1](#)) is directly related to the first core research question of the module. While social networks and social resources will be covered by an extensive part of the module, economic and cultural capital are partly measured by the ISSP background variables (cf. ISSP Demographic Methods Group 2017). Additionally, a few items were

added to the module to enhance their measurement. The standard background variables on personal and household income are complemented by one subjective measure of income adequacy (Q31) asking respondents about the difficulty experienced by their household in making ends meet. In addition to economic capital, this question measures the feeling of deprivation, an indicator of economic well-being that might well complement global well-being measured in terms of life satisfaction. Cultural capital is approached through two key dimensions: the competences in languages other than the main language notably needed for new media and access to the internet (Q32); and the educational level of the partner/spouse (SPDEGREE), which supplements the same information asked for respondents in the background variables section.

National contexts and their institutional settings (Box A in [Figure 1](#)) are at the core of the third central research question on their role in moderating the association of social networks and resources with outcomes such as health, well-being or trust. No additional items were needed to consider them, as the member countries who participated to the ISSP 2017 module define them.

Data of the ISSP 2017 module

A first release of the Social Networks and Social Resources 2017 data were published in March 2019, the second release used in the analyses of this Special Issue has been available since August 2019 and includes data from 30 member countries (ISSP Research Group 2019). Data and detailed documentation are available free of charge and can be downloaded from the ISSP archive on the GESIS website (<https://www.gesis.org/issp/modules/issp-modules-by-topic/social-networks/2017/>).

The ISSP 2017 international dataset includes national representative samples of at least thousand respondents from Australia, Austria, China, Croatia, Czech Republic, Denmark, Finland, France, Germany, Great Britain, Hungary, Iceland, India, Israel, Japan, Lithuania, Mexico, New Zealand, Philippines, Russia, Slovakia, Slovenia, South Africa, Spain, Suriname, Sweden, Switzerland, Taiwan, Thailand, and the United-States. After publication of the second release of the ISSP 2017 international dataset, data for two more countries, Estonia and Turkey, were released as separate country files and can be merged to the integrated international dataset.

All the articles of this Special Issue, as well as our further analyses illustrating the core of the network measurement, are based on the ISSP 2017 integrated dataset including 44,492 respondents. As we were interested in national contexts and their institutional settings, we ran all our analyses for each of the 30 countries. Results for all countries are presented in the Appendix. In this introduction only four countries are presented, aiming to reflect at least to a certain degree the geographical and institutional diversity of countries included in the ISSP, namely Switzerland, Spain, China and Thailand. In considering the whole patterns of results by countries in the supplementary figures, one can note that other choices could have been made. Germany, for instance, shows similar patterns of results as Switzerland; Japan and Taiwan share some common patterns of results with China, while the results of the Philippines shows strong similarities with what is found in Thailand. Among Western countries, Switzerland is a liberal country in the center of Europe, while Spain is a Mediterranean one in the South,

shaken hard by the 2008 economic crisis. China is a post-communist country, presenting a rapid economic development among Eastern countries (Bian 2019). Thailand, while approximately at the same level of development as China, has a vastly different history and political system as well as a much smaller number of inhabitants.

To illustrate the results of the core network measurement – indexes of social capital, network support and social interactions, either within or outside the family – we ran principal component analyses (PCA; in R package “Psych”, see Revelle 2018), after imputation of missing values. For assessing network support, a non-linear variant of PCA was used (homals in R package “homals”, see de Leeuw and Mair 2009; Gifi 1991). The obtained factor scores were compared by country for all the built indicators based on factor scores. In the case of the social capital index, assessing the verticality of societies according to a hierarchy of occupations, the social classes were considered, while network support and sociability are described by age groups to explore life cycle effects of social contacts. To assess social classes, we have used the ESeG schema (Meron and all ESSnet members 2014). The PCAs defining the indicators have been realized with the full sample, without further weighting (Joye, Sapin, and Wolf 2019b) as the factorial structure found was equivalent in the different countries (Joye, Sapin, and Wolf 2019a). All analyses were done with R (R Core Team 2019).

The ISSP data offer a further possibility of analysis which we do not exploit in this paper but which could be of great interest to many researchers: this is the possibility to compare countries over time. A couple of variables, always mentioned as such in the presentation, and an important set of countries where the survey was repeated, are available to analyze the evolution of social relations. This is particularly true of the variables capturing contact frequency in the current issue of this journal.

The core of the social network and social resources measurement

As mentioned above the core of the 2017 module of the ISSP consists of measures capturing various aspects of social relations and social networks. Among these a position generator, a resource generator, a census of relationships and contact frequency are the most important ones. We will describe these instruments one after the other.

The position generator

The aim of the position generator is to derive a measure of social capital from who a person knows. The concept is based on the notion that our society is hierarchically structured and the assumption that the higher up in the social structure you reach and the more diverse the set of your ties are with respect to hierarchical position the larger your social capital (see Lin 2001). Because hierarchical position is operationalized through occupations a position generator typically consists of a set of occupations and a question asking respondents for each of these whether they know someone in the occupation and the nature of the link with this person. Though the importance of choosing a valid set of occupations is mentioned for example by Hällsten, Edling, and Rydgrén (2015) few empirical studies have actually studied the consequences of using differing sets and numbers of occupations (but see Fu and Lin 2015). In the pretest study we

have extensively explored this question by trying to identify the “best” set of occupations and its cross-national variation.

As a result of this study and in light of the constraints of 60 items for an ISSP module we decided to restrict the position generator to 10 occupations asking only one question for each of these occupations:

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 the person who you feel closest to. Each of these jobs could be held by a woman or a man.

Do you know a woman or a man who is... ?

a. a bus/lorry driver; b. a senior executive of a large company; c. a home or office cleaner; d. a hairdresser/barber; e. a human resource manager/personnel manager; f. a lawyer, g. a car mechanic; h. a nurse; i. a police officer; j. a school teacher.

Family or relative

Close friends

Someone else

No one

Can't chose

Following Lin and Dumin (1986) we derive a measure of social capital from these items which is based on four indicators: The maximum, range and mean socioeconomic status in the network as well as the number of occupations mentioned. In order to operationalize the first three indicators we decided to use the ISEI score based on ISCO 1988 (see Ganzeboom and Treiman 2003; see Table A1 in the appendix).¹ These indicators are used in a PCA (see Table 1). In the following we use the factor score as measure of social capital based on the position generator.

To explore the relation of this measure of social capital with the structure of social stratification we conducted, as previously explained, an illustrative analysis comparing China, Spain, Switzerland and Thailand (Figure 2). Within each of these countries we analyze the distribution of social capital by social class² and gender.

The main results are rather simple: While we find no strong or systematic gender differences we observe that social capital tends to decline from higher to lower social classes. Switzerland is a good example of such a tendency. In China, we observe a similar pattern but with a steeper decline. The social capital of those not active in the labor market differs between countries: in Switzerland they occupy a mean position by contrast to China where they are at the lowest one. Such a tendency is the same in many far-eastern countries like Taiwan or Japan. Spain is marked by smaller differences

Table 1. Social capital as measured by the position generator, loadings of components on global score.

Variable	Loading
Maximum ISEI	.98
Range ISEI	.93
Mean ISEI	.77
N of occupations mentioned	.87
Explained variance	.59

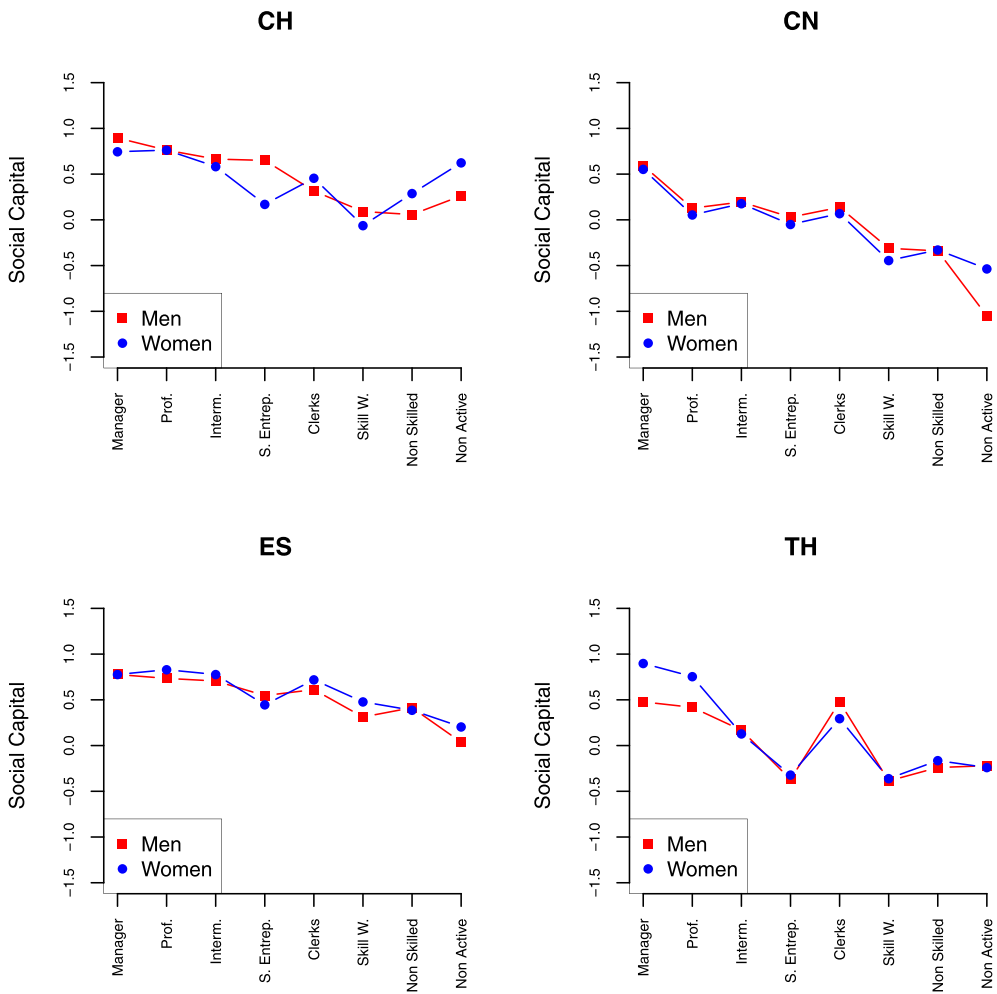


Figure 2. Social capital by social class and gender for four ISSP countries. 1=Managers; 2=Professionals; 3=Technicians and associated professionals employees; 4=Small entrepreneurs; 5=Clerks and skilled services employees; 6= Industrial skilled employees; 7= Less skilled employees.

between socio-economic groups than Switzerland while Thailand, as many economically developing countries, shows a sharp distinction with respect to social capital endowment between “white collars” and “blue collars”, independently of the skill levels.

To summarize, we generally observe a correlation between social position and social capital which is modulated by country-specific conditions. The results for all countries can be found in the [Figure A1](#) in the Appendix.

The resource generator

The resource generator is a tool capturing the support that persons can access through their social relationships. It has been argued 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 (cf. van der Gaag and Snijders

2005; van der Gaag and Webber 2008; Kawachi, Subramanian, and Kim 2008). In order to avoid confusion with the measure described in the previous section we call the measure derived from the resource generator network support. We have chosen five items reflecting practical support (items a and b), informational support (items d) and emotional support (item c and e). The wording of the question and items were:

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.

Who would you turn to first to ...

- a. ... help you with a household or a garden job that you can't do yourself?
- b. ... help you around your home if you were sick and had to stay in bed for a few days?
- c. ... be there for you if you felt a bit down or depressed and wanted to talk about it?
- d. ... give you advice about family problems?
- e. ... enjoy a pleasant social occasion with?

Close family member
 More distant family member
 Close friend
 Neighbour
 Someone I work with
 Someone else
 No one
 Can't choose

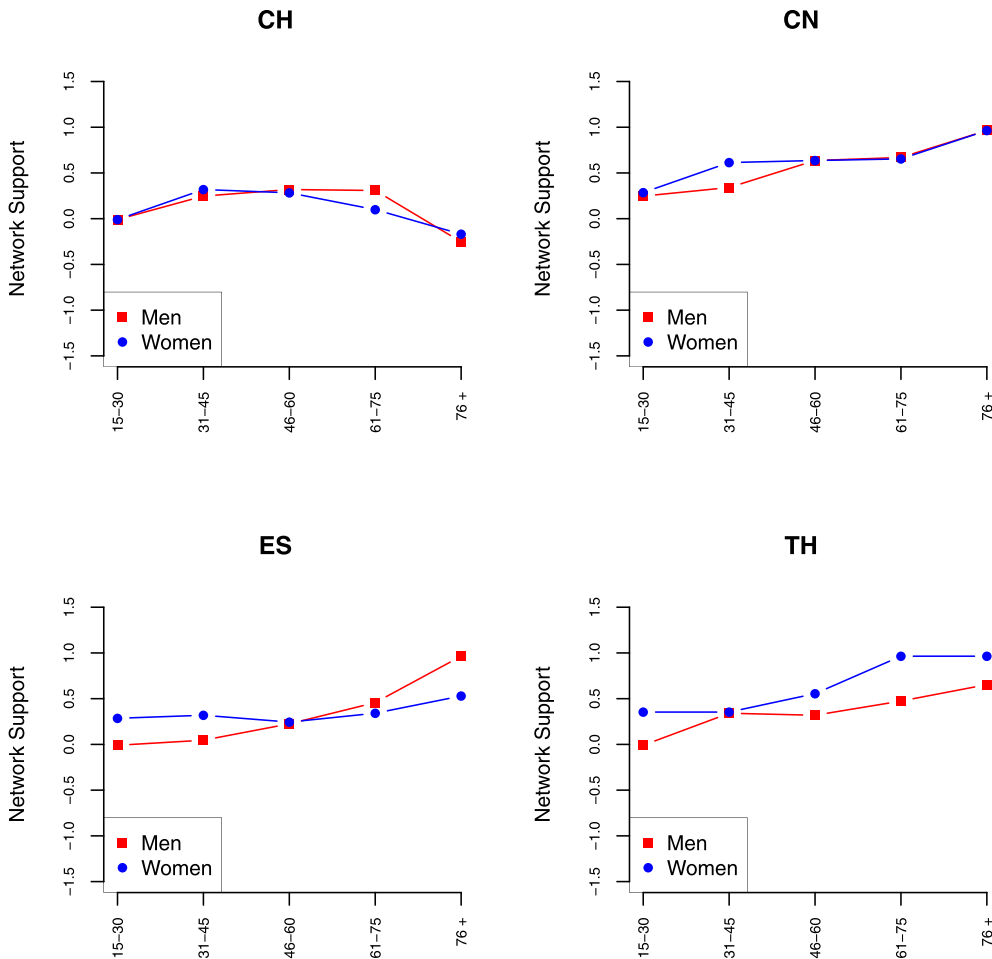
As we were only able to include five items for this dimension into the final questionnaire, it is difficult to replicate the three dimensional structure of this instrument that we have found in the pretest based on 13 items (Joye, Sapin, and Wolf 2019a: 69-76). However, here we are more interested in the general factor of network support based on all resources that a person can access. As proposed in the pretest study and mentioned in Section data of the ISSP 2017 module above we extract the common factor of these items using a non-linear principal component analysis (NLPCA). The loadings of the five items on the common factor are given in Table 2; the rescaling of the answer categories for each question is available from the authors upon request.³

In summary, we obtain a measure of the availability of network support based on the items from the resource generator. We assume that the diversity of potential supporters and the different types of support allows us to use this measure globally (see also Joye et al., 2019a).

To illustrate the variation of network support with demographic categories we analyze its relationship with age and gender assuming that life-cycle effects are the most important ones. As Figure 3 shows network support tends to increase with age – Switzerland being an exception. This tendency of increasing network support may be interpreted as cumulative effect of more and more social ties potentially giving social support. At least for more traditional societies with low levels of social and geographic mobility this seems a plausible pattern. In China, the support is higher than in other countries and growing with age, without any visible gender differences. Spain and Thailand show a similar pattern but with an interesting difference according gender: in Thailand, women have higher levels of network support at any age while in Spain there is an inversion, in older ages men have higher support. The tendency to have more network

Table 2. Loadings of resource generator items on common factor network support.

Variable	Loading
a. help with a household or a garden job that one can't do oneself	.61
b help around home when one is sick and had to stay in bed for a few days?	.67
c. be there when one felt a bit down or depressed and wanted to talk about it?	.74
d give advice about family problems?	.69
e. enjoy a pleasant social occasion with	.60
Explained variance	.44

**Figure 3.** Network support by age and gender for four ISSP countries.

support for women could be linked to the traditional division of care between men and women observed in many countries, even though there is an asymmetry between giving and receiving support from a network of social relations. As mentioned, Switzerland's pattern is unique in this set of countries: Swiss in middle age enjoy the highest level of network support while the youngest and oldest can only access much lower levels of network support. One possible explanation of this result could be that mobility, social as well as geographical, is higher in Switzerland than in the other three countries thereby disrupting network support. In any case the Swiss result points to the challenge of ensuring the wellbeing of older

persons in societies in which older people have less support from their networks. The results for all countries are given in [Figure A2](#) in the [Appendix](#).

Up to now we have only introduced a support measure based on support from persons. Oftentimes and depending on national context support can also come from market based institutions (e.g. firms), from nonprofit organizations (e.g. churches) or from the state. To capture this form of organizational social support we added a second resource generator question to the module. These are:

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.

Who or where would you turn to first to ...

- a. ... help you if you needed to borrow a large sum of money?
- b. ... help you if you needed to find a job?
- c. ... help you with administrative problems or official paperwork?
- d. ... help you if you needed to find a place to live?
- e. ... look after you if you were seriously ill?

Family members or close friends
 Other persons
 Private companies
 Public services
 Non-profit or religious organisations
 Other organisations
 No person or organization
 Can't choose

These items would allow us, for example, to study in how far the role different institutions representing the market, the state or voluntary associations and social networks play depend on country-specific conditions. A more in-depth discussion of this point is presented in Joye, Sapin, and Wolf (2019a).

Next to the role of mobility pointed out above or country-specific institutional setups there may be other factors responsible for the country differences we observe. These could be differences in family structure, urban/rural composition of populations or regulations of the (welfare) state. We believe that exploring the relationships between these context-specific characteristics and different aspects of social relations is necessary to advance our understanding of social networks and their functions.

Sociability in kinship and friendship networks

A set of questions related to social relations pertain to the availability of different kinship and friendship roles (Fu 2014). Distinguishing between different types of relationships also brings in mind the distinction between strong and weak ties (Granovetter 1973). These different views can be informed by what we have termed a relationship census aiming at capturing availability and frequency of contact with different types of relations. In other words, we aim at capturing the opportunity structure of social relations from which resources may be mobilized and accessed. In designing this question the challenge was to create an inventory of contacts covering family members, friends

and others. We also faced the restriction to make these data at least partly comparable to data from the previous ISSP module on social networks from 2001.

In the end six items were included 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 (Q21), siblings (Q22), adult children (Q23), 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.

Q17 How often do you go out to eat or drink with three or more friends or acquaintances who are not family members? Daily ... Never

Q18 At these occasions, how often do you make new friends or acquaintances? Never ... Very Often.

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. 0-4 people ... 100 or more.

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? Daily ... Never.

Q22. 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. Daily ... Never.

Q23. 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. Daily ... Never.

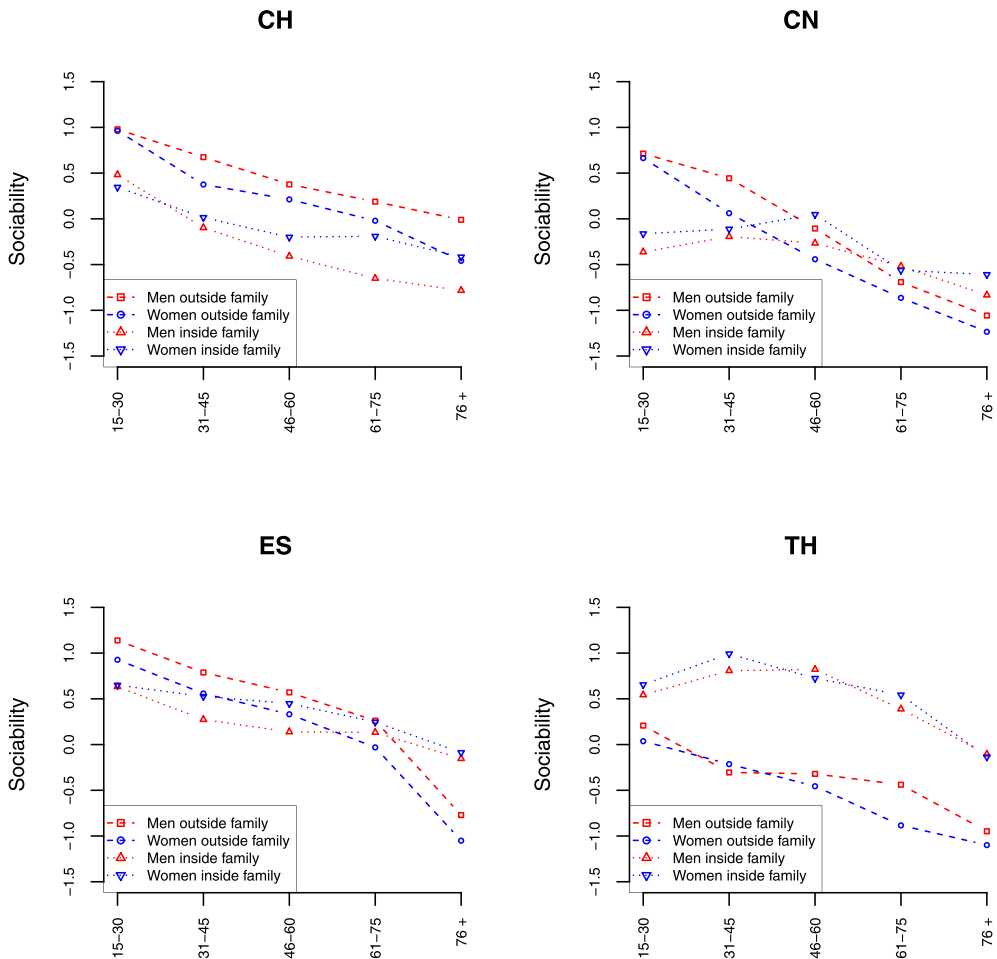
Q24. How often do you see or visit other family members who are aged 18 or older and who do not live with you? Please answer for the family member you see or visit most frequently. Daily ... Never.

Q25. How often do you see or visit your close friends? Please answer for the close friend you see or visit most frequently. Daily ... Never.

From these items several measures could be derived. For example, contact to children, siblings and parents can be considered as indicator of density of the kinship network. Our focus here is more exploratory aiming at understanding the structure of contact frequency within the entire network. We expect that behind these items a simpler structure will appear. According to the theoretical dimensions as well as the

Table 3. Sociability within and outside family.

Variable	Sociability outside family	Sociability with family
Go out w. friends/acquaintances	.84	-.01
Make new friends (reversely coded)	-.83	.05
Number of interactions/day (reversely coded)	-.46	-.15
Contact w. parents or children	-.01	.65
Contact w. siblings	.15	.70
Contact w. other family member	.09	.69
Contact w. close friends	.52	.38
Explained variance	.27	.22

**Figure 4.** Sociability within and outside family by age and gender for four ISSP countries.

variables considered, one expectation is to see differences between the inner circle of close friends and family members on one side and a sparser network of relations on the other. Based on the literature we may alternatively expect a distinction between the number of contacts or the volume of contacts and the intensity or frequency of contacts (Joye, Sapin, and Wolf 2019a). In order to find the dimensional structure of these items we subjected them to a PCA and obtained two factors for which loadings are given in Table 3.⁴

The two factors we extract, which summarize nearly half of the variance, can be described as sociability outside and within the family, respectively. The first component combines the two items on going out with and making new friends as well as contact frequency with friends. The second component stands for the sociability with members of one's family. There certainly is some resemblance of these two factors with the distinction between weak and strong ties, but we would be hesitant to follow this interpretation as we would not regard "close friends" as weak ties.

We again use age and gender to explore the patterns of sociability. The general trend is a decrease of sociability from the youngest age group to the older one; and this is true for contacts within and outside the family. The relation with gender is more differentiated but in general men show higher levels of sociability outside the family while women enjoy higher levels of sociability within the family at all ages.

Looking at our small sample of countries we see some striking differences in the distribution of sociability (Figure 4). In Switzerland, as an example of a western country, sociability outside family is far more frequent than within the family. By contrast, in Thailand, a developing country, we find the reverse pattern with more frequent encounters with family members. It is interesting to note that in China, we have a "western model" for the youngest and a "developing countries model" for the oldest. Spain also is marked by a mixed pattern though with less difference between sociability inside and outside family. The only exception is the oldest age group where sociability outside the family nearly disappears. Results for all countries can be found in Figure A3 in the Appendix.

Possible research questions and outlook on the other contributions to the special issue

The data that we introduce here allow researchers to explore a multitude of questions. Some of the questions that can be researched with the data from the ISSP 2017 module on Social Relations and Social Networks are sketch in Figure 1. These and others are investigated by the papers of this special issue. Before we briefly describe the contributions of these papers we outline the research questions that we had in mind when drafting the module's questionnaire.

First, the data allow to explore the relations between cultural, economic and social capital and to analyze cross-national differences of these relations. Furthermore, one can ask if these resources can substitute each other: If someone lacks economic capital, can that person achieve the same level of well-being when he or she is in command of social and/or cultural capital? There seems to be circumstantial evidence for the possibility to substitute the lack of income by the right "relationships" but this module allows us to study this question systematically and in cross-national perspective.

Another research question pertains to the interplay of state, market and networks. In some societies the distribution of goods, services and ultimately life chances are mostly organized by markets, in others the state plays a crucial role in this field and in still others personal relations seem to be the important distribution channels maybe because neither state nor market are functional. This research question can also be put into context of current debates around the future of the (European) welfare state (cf. Bonoli and Natali 2012; Ervasti et al. 2012). With increasingly liberal policies many states have

reduced services for their citizens and instead have referred them to private services. In particular question Q8 as part of the resources generator allows such an analysis.

The last promising avenue for research that we would like to mention here evolves around the relationship between gender and social capital, social relations and social networks. The intersection (Walby, Armstrong, and Strid 2012) between gender and social resources has not been studied widely (but see Erickson 2004). Likewise, there has been a debate about the gendered structure of sources and types of social support (e.g. Moren Cross and Lin 2008; Muñoz-Goy 2013) which can be informed and deepened by analyzing the data from this new cross-national data.

Of course, there are many more research questions that can be addressed using the data for the ISSP 2017 module. This issue and the next of this journal provide prominent examples of the diversity of such questions based on a comparative survey program. The article by Yanjie Bian, Lei Zhang and Yayi Gao explores the links between social bonding and subjective well-being. A very interesting output among others is the map situating the countries and their level of well-being between formal and informal social bonding. The contribution of Katalin Füzér, Ákos Huszár, Ákos Bodor, Lajos Bálint and Attila Pirmajer explore another facet of the link between social capital and prosperity in societies characterized by the level of trust. One of the strong points of this contribution is the use of previous ISSP data making the time perspective visible. The last paper in this issue, the one by Ricardo Gonzalez, Adolfo Fuentes and Esteban Muñoz, is dedicated to the link between social capital and health, another element related to well-being, but with a special emphasis on the effect of the national context, for example, the way that the effect of economic capital on health is mediated.

In the second issue, the research of Markus Hadler, Florian Gundl and Boštjan Vrečar delivers a broad description of social capital, cohesion and trust in the different countries participating in ISSP. This work confirms some previous results in the literature, as presented by Putnam, Uslaner or Larsen, but these were investigating a smaller and more limited palette of countries. The contribution of Miloslav Bahna and Roman Hofreiter analyses important dimensions of support, i.e. the ability to borrow larger sums of money or to find a job. Of course, the type of ties plays an important role but the analysis also highlights the effect of the macro-social context, exploiting the cross-national design of the ISSP. Next the research of Endre Sik, Júlia Koltai and Bori Simonovits introduces a further dimension, geographic mobility and the links between the potentiality of migration and social networks. And, last but not least, Jarè Struwig and Benjamin Roberts draw out attention to methodological aspects which are sometimes neglected when using survey data: they are collected in specific contexts and the difficulties of the fieldwork oftentimes vary between countries. With examples from South Africa they show that the process of data production can have substantive effects on data quality and, in the end, on the validity of the results presented by researchers.

Notes

1. We also explored ISEI scores based on ISCO08 which can be found on Ganzeboom's homepage (http://www.harryganzeboom.nl/isco08/isco08_with_isei.pdf); our impression is that the ISEI scores based on ISCO88 have higher validity in this case.
2. We operationalize social class following the concept of European Socioeconomic Groups developed by a Eurostat working group as successor for the European socioeconomic

classification (see https://ec.europa.eu/eurostat/cros/system/files/ESEG_finalReport_Vcor30_juillet.pdf; accessed 2019/12/20). Those without a job were assigned to a category “not active”. We have chosen ESeG because we wanted a simple system of measuring social class in a comparative context. We assume that this measure is more appropriate than the older EGP or ESEC classifications. Because occupations are measured by ISCO in ISSP this assumption can be tested empirically.

3. We have not used any weighting to correct for different sample sizes. However, the factorial structure seems stable enough not to vary by different weighting schemas. In the preceding publication (Joye, Sapin, Wolf, 2019a) we obtained the same structure for the pretest data with different samples. Because the following analyses are presented country by country the potential impact of different sample sizes is minimized.
4. We combined the items on parents (Q21) and children (Q23) to avoid age effects.

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Appendix A

Table A1. SES-scores assigned to occupations in position generator.

Item	Occupation	ISCO88	ISEI88	Final value
a	bus/lorry driver	8323/8324	30/34	32
b	executive of large firm	1210	70	70
c	home or office cleaner	9130	16	16
d	hairstylist/barber	5141	29	29
e	human resource manager	1232	69	69
f	lawyer	2421	85	85
g	car mechanic	7231	34	34
h	nurse	2230/3231	43/38	40.5
i	police officer	5162	50	50
j	school teacher	2320/2331	69/66	67.5

Values taken from Ganzeboom and Treiman (2003).

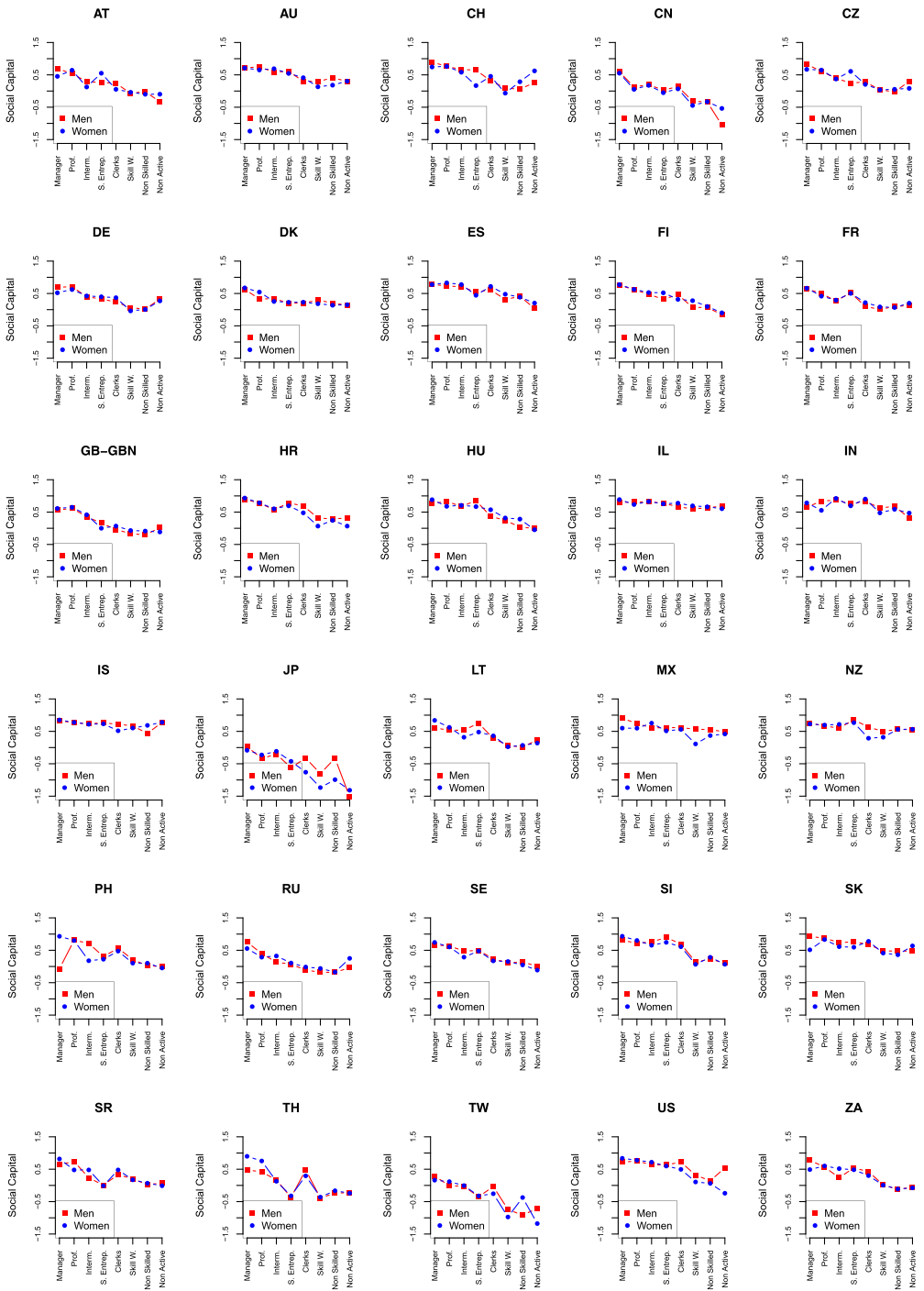


Figure A1. Social capital by social class and gender for all ISSP countries.

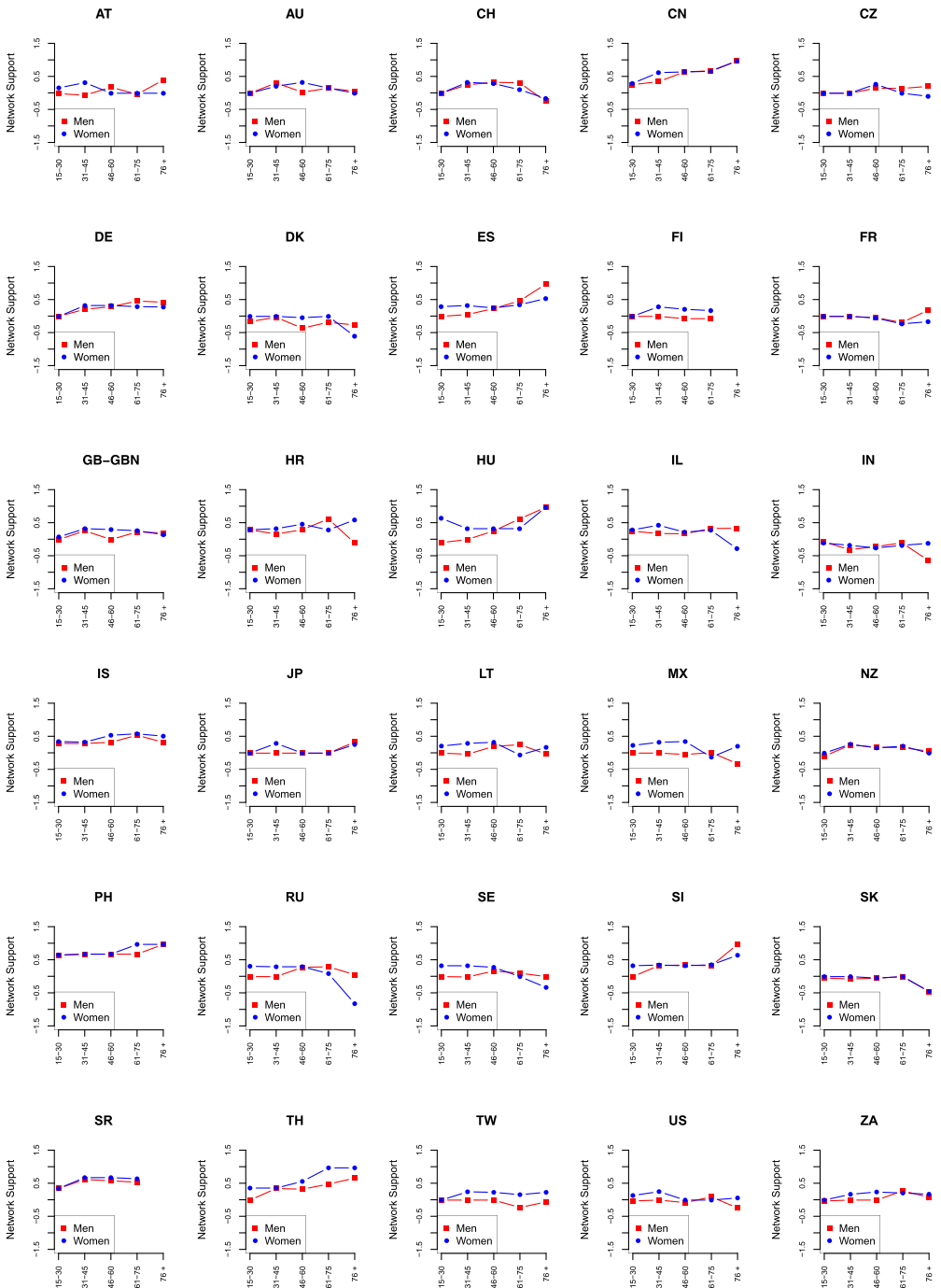


Figure A2. Network support by age and gender for all ISSP countries.

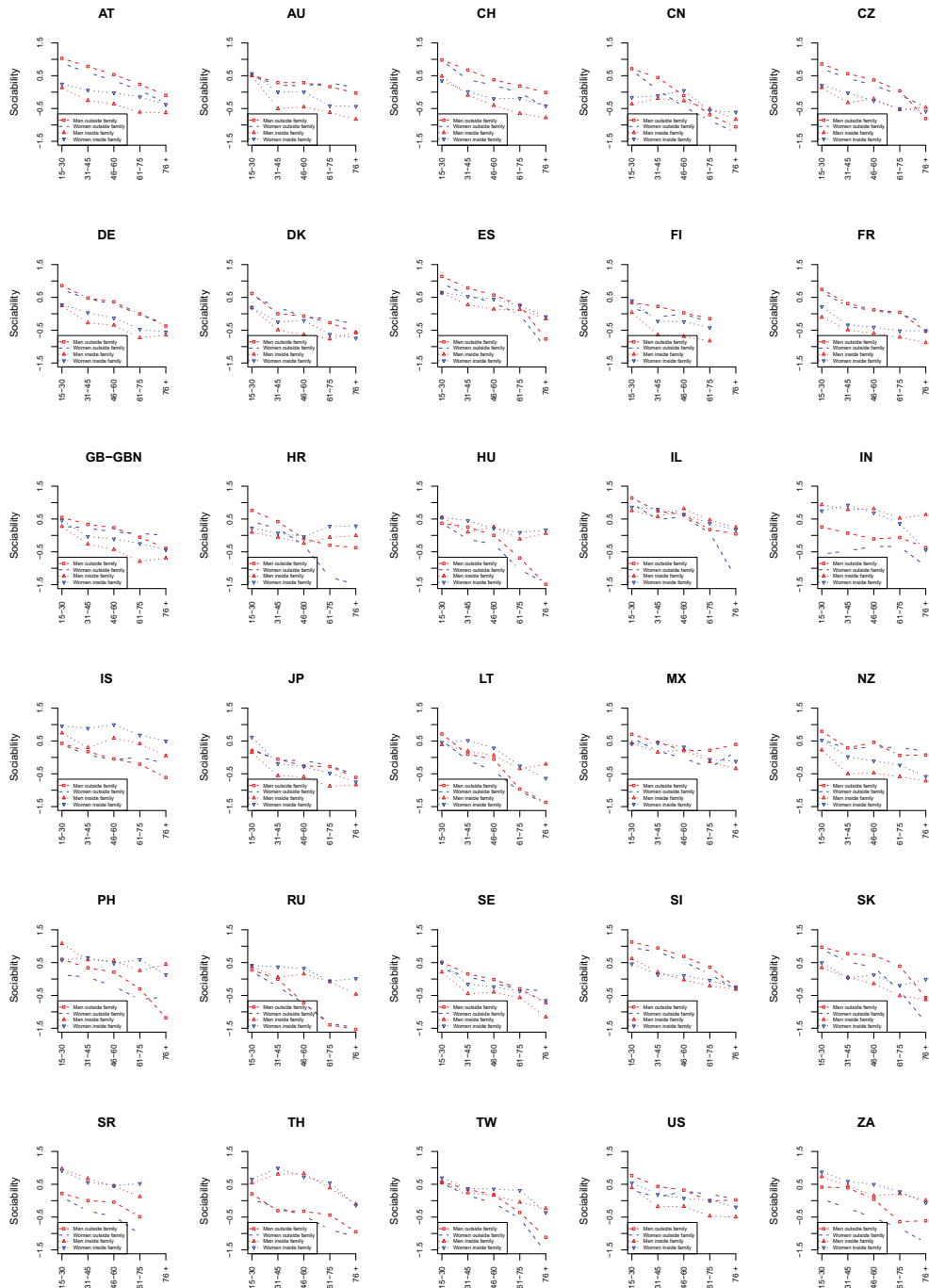


Figure A3. Sociability within and outside family by age and gender for all ISSP countries.