Reconsidering « Community Liberated »: How Class and the National Context Shape Personal Support Networks

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<u>Abstract</u>: The "community liberated" thesis has been influential in describing contemporary social support systems. Specifically, "community liberated" argues that people do not seek support in their immediate neighborhood but rather entertain a network of far-flung ties to support providing alters. This paper uses personal network data from six countries – Australia, Germany, the US, Austria, Hungary and Italy – to evaluate this argument and shows that the degree of liberation of one's community is strongly linked to one's socioeconomic status – specifically, one's education level. Additionally, we describe strong country-level heterogeneity in the spatial dynamics of personal support networks and find national contexts to be moderating the effect of education on community liberation, especially in Italy and Hungary, thus suggesting network geographic dispersion to be linked to national economic structures and labor markets. The paper thus elucidates the effect of two different, yet related social contexts on personal networks: the class context and the national context.

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1. Introduction

The study of the decline and revival of community has kept sociologists busy since the very inception of the discipline. Much of sociologists' focus and normative concern has been about the maintenance of social solidarity in the midst of large-scale social change brought about by industrialization, mass immigration, and urbanization.

A major advance in community studies has been the work of Barry Wellman on personal support networks. Rather than debating the metamorphoses of community in mass society as in much earlier theorizing, Wellman switched the focus of community sociologists to the individual's social ties using survey data. This, along with the work of other community scholars like Fischer, has allowed sociologists to realize that, contrary to a long tradition of scholarship focused on the alienation of the individual city-dweller and the risk of anomie due to unprecedented division of labor, community is doing just fine in the form of geographically dispersed and segmented networks of personal intimates – the so-called "community liberated" model (Wellman and Leighton 1979).

The literature on personal networks has thus denied the plausibility of a switch from a rural, place-bound and solidary *Gemeinschaft* to an urban, diffuse and impersonal *Gesellschaft*, as originally envisioned in Tönnies' (1957[1887]) pessimistic account of modernity. In the process of salvaging the concept of community, however, students of personal networks may have indulged in an overly optimistic account of modern life. In a somewhat parallel development, the link between network structure, social capital and social (dis)advantage has been well established in large subfields of social network analysis (Coleman 1990, Burt 1992, Granovetter 1973, Lin 1999, 2002). This effort, aimed at relating networks to social inequality, has been largely absent in analyses focusing on personal networks. Wellman's theoretical statements on contemporary personal communities, in particular, have been silent about a possible link between differentials in social resources and variations in the form and substance of such communities.

Additionally, much of the accumulated knowledge on personal networks has been drawn from North American survey data. Evidence from the General Social Survey has been crucial in describing the average American core discussion networks (Marsden 1987, 1988), and the analytic building blocks of personal communities have been drawn from the 1977 Northern California Community Study (Fischer 1982) and the two waves of the East York study (Wellman 1979, Wellman and Leighton 1990). While recent analyses focusing on the various contexts in which network processes unfold have documented the influence of physical geography (Grannis 2009, Hipp and Perrin 2009, Doreian and Conti 2012, Papachristos, Hureau and Braga 2013), studies of personal networks done in other national contexts point to substantial differences in density, size and composition compared to the North American baseline (Fischer and Shavit 1995, Grossetti 2007, Bastani 2007). In other words, there is evidence that social networks do not operate in a vacuum but are instead spatially embedded. These national variations remain poorly understood, however, due to a lack of analysis of large, comparative survey data.

In this paper, I empirically evaluate two key spatial dimensions of the "community liberated" argument – namely, the degree of geographic dispersion of one's personal support network, as well as one's degree of local social involvement – friendship with neighbors and availability of assistance providers for small, local tasks like getting help when sick.

Using nationally representative personal network data drawn from six countries that participated in the 1986 wave of the International Social Survey, I find educational attainment to be the strongest and most consistent predictor of both network geographic dispersion and local social involvement – educated people tend to entertain more spatially dispersed support networks and to be less locally involved. I also find considerable country-level heterogeneity, and show that the effect of education is strongly mediated by the national context. While I find partial support for Wellman's "community liberated" model, this paper argues that community "liberation" is better thought of a gradual phenomenon enabled by socioeconomic resources and embedded in a specific national context.

The rest of the paper is organized as follows: I first review the existing work on personal networks, inequality and the national context, and draw a series of hypotheses regarding social resources and variation in pattern of social support provision. After describing the data, I estimate a series of linear regression models on several measures of geographic dispersion and local social involvement. In the final section, I discuss the significance of my results for the comparative study of personal networks and propose potential mechanisms at work in influencing variation in personal support networks.

2. Background

2.1. The "Community Liberated" argument

In between the tenants of the "community lost" perspective describing the potential breakdown of social solidarity in the anonymous and transient environment of the industrial city, and the optimistic scholars of the "community found" tradition studying tightly knit urban villages, Wellman's major contribution has been to shift the analytic focus of community studies away from the neighborhood (see Wellman and Leighton 1979 for a detailed description of both traditions). Using survey data about East Yorkers' sources of social support, he found that, far from being either isolated or immersed in institutionally integrated urban villages, his respondents received ample amount of support from a diverse array of intimates living in other parts of the city or the country (Wellman 1979; Wellman and Wortley 1990). In particular, Wellman found that only 13% of his respondents' sources of support were located in their neighborhood and that East Yorker' relationship with their neighbors remained fairly superficial. Additionally, his respondents' overall network density was fairly low (0.33) and their sources of support rather specialized: those available to help in situations of emergency (e.g. close kin members) tended to be different from those helping with everyday matters (e.g. friends and co-workers). In other words, we receive "different strokes from different folks" (Wellman and Wortley 1990). Wellman summarizes the defining features of contemporary, liberated communities in an introduction to a 1999 volume on personal networks around the world: ties to one's intimates are "narrow, specialized relationships" (rather than multiplex ties), they form "sparsely knit, loosely bounded networks" (rather than dense networks), that have "moved out of neighborhoods to be dispersed networks that continue to be supportive and sociable" (rather than concentrated networks) (Wellman 1999, 23-28).

The increasing availability of communication technology and long-distance transportation, as well as a general increase in material well-being for most North Americans have together contributed to making spatially close and tightly bounded personal communities less crucial for survival, thus doing away with the communal neighborhood (Wellman 1999, Espinoza

1999). In later work, Wellman outlined how new technological changes – namely, the Internet and communication device such as mobile phones - enabled "networked individualism", the postindustrial type of community in which "people function more as connected individuals and less as embedded group members" (Rainie and Wellman 2012: 12).

Those new modes of forming and maintaining ties, however, suppose resources and objects – personal cars, the use of planes and, more recently, the Internet and mobile phones –, the access to which can vary strongly both within North America – due to social inequality – and across different countries – due to uneven levels of economic development, different transportation infrastructures, and variation in physical geographies or institutions such as labor markets. Thinking of community liberation as a context-bound, resource-based process thus constitutes a crucial starting point in relating personal networks to inequality as well as the national or regional setting in which they unfold.

2.2. Inequality and personal networks

2.2.1. Inequality and network range in previous work

Early work on network range using data from the 1977 Northern California Community Study and the 1965 Detroit Area Study showed strong correlational evidence between high income and education level, and access to a pool of geographically diverse, unrelated alters (Verbrugge 1979, Campbell, Marsden and Hurlbert 1986). Analyses of personal network range using the 1985 Social Networks module of the General Social Survey yielded a similarly strong, positive association between network range and socioeconomic status. Those with large, segmented, geographically widespread networks – a liberated personal community in Wellman's words – are more likely to be white, to have graduated high school and have above average family income (Campbell Marsden and Hurlbert 1986, Marsden 1987, Huang and Tausig 1990).

Fischer's (1982) study of personal networks in Northern California, in particular, established an association between the key variables of "community liberated" and socioeconomic status. About personal network density, Fischer noted that the key factor was the diversity of his respondents' spheres of activity: "*If one's network is drawn heavily from one or two contexts, it will be dense* [...]. *It underlines the importance of opportunities to form ties outside the basic contexts; without such opportunities, people end up with dense ties*" (Fischer 1982, 146). Access to different, unrelated contexts is a function of socioeconomic status: "*education, affluence, and mobility allow individuals to make and maintain relations with people from various* specific *contexts*" (*ibid,* emphasis in the original text). Relatedly, Fischer found that the single most important predictor of the geographic dispersion of intimates was the respondents' education level (Fischer, chapter 13). Specifically, college graduates had, on average, two thirds fewer local relatives and four times as many distant non-kin as did respondents who did not graduate from high school (Fischer 1982, 159). Respondents' income also positively affected the distance that separated them from their associates (Fischer 1982, 175).

2.2.2. Findings from urban ethnography

Students of urban poverty have acutely described neighborhood based survival strategies involving extensive local interaction and cooperation, such as "swapping" resources (Stack 1974) or the cultivation of "disposable ties" (Desmond 2012) with neighbors and acquaintances from the area. Away from situations of extreme urban poverty, studies of working class social life such as Gans' *Urban Villagers* (1962) in Boston's West End or Suttles' (1970) study of the Addams area in Chicago also describe *local* social worlds organized around neighborhoods. The "provincial morality" of the Addams area described by Suttles is a direct outcome of the enclave-like, self-enclosed character of a low-income area where everybody knows each other and cooperates with each other on a daily basis. Granovetter (1974: 1373-76) famously speculated that Boston's West Enders could not mobilize against urban renewal because of their excessively clustered and hyperlocalized social relations preventing the formation of bridging ties. In short, the urban ethnographic tradition emphasizes a strong theoretical link between limited resources, limited geographical horizon, and the embeddedness of personal networks in the neighborhood.

Conversely, studies of suburban middle class social life document the superficiality of neighboring relations and local ties in general. For example, Gans's study of Levittown shows that neighboring is a choice mainly based on preference: some people choose to associate with neighbors they perceive as similar, some others do not simply because they are not interested (Gans 1967:155-6). Similarly, research on neighbor network formation in middle-class neighborhoods show that the primary factors inducing neighborhood ties are not need-based. Rather, neighbor networks slowly emerge over time, through repeated interaction at the block-level and are highly sensitive to subtle differences in the built environment, like street width and shortest paths to entrance doors (Festinger, Schachter and Back 1950, Grannis 2009, Hipp and Perrin 2009). Additionally, children or pet-related activities play a key role in bringing neighboring adults together (Grannis 2009). Survey research on neighborhood involvement has shown that middle-class residents tend to know a larger number of neighbors but to have less frequent and intense contact with them than lower-class residents (Fischer 1982:161-162; Campbell and Lee 1992). The suburban mode of neighboring fits well with the "community liberated" model in which strong ties critical for support provision are not interwoven and local in nature.

Keller (1968) aptly described these differences in social attachment to local urban space in her work theorizing the uses and functions of neighborhoods. While she acknowledges that most people's activity sphere has moved beyond their immediate surroundings, there remain vulnerable social groups with "special ties" to the neighborhood: "*There are, of course, the groups with special ties to the local area – the aged, the ill, the recent migrants, the young housewives with young children, and the poor*." (Keller 1968, 162). "Liberation" from the neighborhood thus implies social resources that are largely absent in Wellman's general model.

To sum, the causal relationship we derive from earlier ethnographic work as well as work studying network range is that the entertainment of a distant personal community is in large part of a function of one's structural opportunities and constraints. In other words, more educated and more affluent people are more self-sufficient and less reliant on geographically proximate forms of support, meet people from more diverse spheres of activities because of their studies, jobs or hobbies, and are in turn better able to entertain these distant relations. The extent of one's neighborhood embeddedness (or whether one's personal community is "found" or "liberated") is thus negatively related to one's socioeconomic status. The major limitation of the body of research reviewed so far, however is that it is exclusively drawn from the North American context. We now turn to reviewing existing work done in other national contexts.

2.3. Networks in context: national variation in personal networks and patterns of social support provision

While the overwhelming majority of what we know about personal networks comes from North American survey data, there is an emerging body of works documenting similitudes and differences in other national contexts.

Fischer's foundational study has been replicated in Israel (Fischer and Shavit 1995) and France (Grossetti 2007). In the French case, we observe very similar indicators in average network density (0.44 in Northern California, 0.46 in Southern France) and role multiplexity (1.6 and 1.69 respectively). We do observe substantial variation in the spatial structures of personal networks: they tend to be much more geographically concentrated in France (83% of French personal networks are within an hour's drive as opposed to 65% in Northern California)(Grossetti 2007). In Israel, Fischer and Shavit found that the share of distant networks was similar if a half-hour drive (as opposed to an hour) was coded as "distant" – reflecting differences in transportation and physical geography. Additionally, they found important disparities in network density - Israeli networks tended to be much denser (0.44 in the US, 0.66 in Israel). Evidence from Iran shows that personal networks in Tehran features more kin ties and far less friendship ties than in Northern California and East York (Bastani 2007: 366-8). The network density is higher (0.55) due to the higher proportion of kin. A striking aspect of Iranian network is gender segregation: on average, two thirds of ties are same sex ties. In Germany, Hennig (2007) found that Wellman's typology does not apply neatly: only a minority of respondents had personal communities closer to the "liberated" ideal-type. Most recently, Letki and Mierin (2015) found that inequality levels in postcommunist countries positively affected the size of people's personal networks, in a region where unreliable formal institutions had already installed strong informal norms of mutual help.

This emerging body of work on personal networks in other national settings point to the importance of the context in which networks operate (Entwisle et al. 2007, Doreian and Conti 2012). While much earlier theorizing on social networks uncritically assumed their causal precedence, there has recently been a surge of interest in understanding variation in network themselves as influenced by contextual elements such as space and geography (Grannis 2009; Papachristos, Hureau and Braga 2013) or culture and worldviews (Vaisey and Lizardo 2010; Patchuki and Breiger 2010). Those contextual effects on networks have been invoked to explain patterns of national variation described above: Fischer and Shavit (1995) mention geography and a more group-oriented national culture in Israel explaining higher network density, while Bastani (2007) invokes demography and specific features of the labor market to explain the high proportion of kin in Iranian networks.

As providers of goods such as money, advice or counseling, personal support networks are at the core of the social fabric of groups, whose structure can be affected by institutions like the welfare state, the labor market, social and cultural norms regulating the exchange of favors and service as well as physical geography. While much network research and theorizing has taken place in the US and Canada, it is important to acknowledge the particular character of the North American context along those dimensions most likely to influence the form and substance of personal support networks.

3. Hypotheses

While the "community liberated" thesis makes a general argument about the geographic dispersion of personal support networks, our review of the literature leads us to consider the effect of two different types of contexts. On one hand, the need- and resource-based nature of informal social support systems point to the importance of socioeconomic status as affecting the degree of "liberatedness" of one's community – in other words, the class context. A higher socioeconomic status is thus associated with networks that are less spatially anchored. On the other hand, previous research has documented important country-level variation in the form and content of personal networks – in other words, the national context. There should be important variation across countries in the extent to which personal communities are liberated. We therefore expect that the national context will mediate the impact of socioeconomic status on personal support networks.

Specifically, we expect that:

- H1: A higher education level and personal income should *increase* one's geographic distance to sources of material, mental support, advice and support for marital issues (*geographic dispersion hypothesis*)
- H2: A higher education and personal income level should *decrease* one's level of social involvement with one's neighbors (*neighborhood embeddedness hypothesis*)
- H3: A higher education and personal income level should *decrease* one's number of immediately available alters to provide local assistance (*local support hypothesis*)
- H4: The magnitude of the effect of education and personal income on distance to support, involvement with neighbors and number of different local support providers should vary by country. More generally, we expect large cross-country heterogeneity in both geographic dispersion and local social involvement (cross country heterogeneity hypothesis)
- H5: We expect those national differences, however, to follow predictable lines of differentiation (*network regime hypothesis*). 3 competing sub-hypotheses can be specified:
 - H5a: Differences in personal support networks should follow differences in physical geography in our sample of country (*network regime: geography hypothesis*)
 - H5b: Differences in personal support networks should follow differences in culture in our sample of country (*network regime: culture hypothesis*)
 - H5c: Differences in personal support networks should follow differences in economic structure in our sample of country (*network regime: economy hypothesis*)

4. Data, measures and modeling strategy

4.1. *Data*

To test this set of hypotheses, we use data from the 1986 Social Network module of the International Social Survey Program (ISSP). ISSP is an ambitious research project that started in 1985 with the goal to gather comparable data across different countries for questions of broad relevance to social sciences, modeled after the General Social Survey. As of 2015, ISSP includes 48 countries and gathers some of the highest-quality, cross-national survey data available to social scientists. The 1986 module was administered in 7 countries: Australia, West Germany, the United States, Great Britain, Austria, Hungary and Italy and provides the best available data on personal networks across different countries². Somewhat surprisingly, the 1986 ISSP module has never been exploited by network analysts³, who have overwhelmingly tended to use data drawn exclusively from the U.S. such as the Detroit Area Study (Laumann 1973), the General Social Survey (Marsden 1988) or the Northern California Community Study (Fischer 1982, Campbell et al. 1986).

The dated nature of those data nevertheless represents a legitimate concern and a potential threat to the temporal validity of our analyses. In 1986, West and East Germany were still two separate countries, Hungary was part of the Eastern Block and Italy was going through a period of unprecedented economic growth. This being said, we believe that the comparative analysis of personal networks in 1986 is still relevant. First, "community liberated" is a network theory with a rather large scope: it ambitions to describe personal networks *in general*, not just in late 20th century Canada. Wellman recuses the "pastoralist fallacy" of community theorists' nostalgia for the lost, solidarity village and argues that even small medieval villages in Europe had far flung commercial ties (Wellman 1999, 11-12). In other words, informal social support systems are a general feature of human groups and it is unlikely that they have been profoundly changed in less than thirty years. The current debate about changes in American discussion networks has shown that much of what had been thought of to be increasing social isolation was in fact a data issue in the 2004 and 2010 General Social Survey (Fischer 2009, Paik and Sanchagrin 2013; but see Brashears 2011). Second, if personal networks *did change* between the 1980s and 2015, then it is better to test Wellman's theory using data gathered during approximately the same period to ensure that whatever difference we observe between the "community liberated" argument and our findings are not due to unobserved social change over the last 30 years.

4.2. Variables and measures

We are interested in two outcomes: the geographic spread of one's support network as well as one's degree of local social involvement. The 1986 ISSP Social Networks module contains detailed information on the geographic distance to the respondent kin members (parents, siblings, children, and one other close relative) and the respondent's best friend, as well as detailed information on two alters the respondent would go to for four kinds of social

 $^{^2}$ The 2001 wave of the ISSP also had a network module. Unfortunately, and unlike the 1986 edition, the survey did not ask questions regarding distance to alters – except for how long it would take the respondent to get to his or her mother. This limitation makes is impossible to test our hypotheses regarding the geographic dispersion of personal networks.

 $[\]frac{3}{3}$ see Hollinger and Haller 1990 for the only exception using the 1986 ISSP data to study the network aspects of kinship. This is the only sociological research using the 1986 data we are aware of.

support: material support (who the respondent would turn to borrow a large sum of money), mental support (who the respondent would turn to for help if he felt down or depressed), support for issue with spouse or partner (who the respondent would turn to he or she was very upset with his or her partner and was not able to sort the situation alone) and advice (who the respondent would turn to for advice about important matters). We have included the wording of the survey questions in detail in the appendix section.

The ISSP questionnaire asked for the first and second person the respondent would go to in order to seek support. For all four kinds of support, informal sources like spouse, close kin members, best friend or a neighbor provide the overwhelming majority of support (55% for material support, 91% for mental support, 78% for help with marital problems, and 92% for advice in the case of the first named alter, for example). It is then possible to calculate the geographic distance to support providers thanks to the detailed information on distance to kin members and best friend⁴. Responses to questions about distance ("About how long would it take you to get to where … lives? Think of the time it usually takes door to door") were originally coded in eight incremental categories; we linearly re-scaled them in hours for ease of interpretation of our results. The appendix section describes the wording for each question as well as the original categorical scale in detail. We computed the distance to two alters providing four types of support, yielding eight measures of geographic dispersion of one's personal support network.

We use three measures to study one's degree of local social involvement. One is the proportion of neighbors in one's circle of friends ("How many close friends would you say you have?" was immediately followed by "How many of these friends are your close neighbors?"), which yields a measure of neighborhood social involvement. The other is the number of different persons the respondent relies on for small, local assistance. There are two questions about local assistance in the 1986 ISSP survey: who the respondents relies on to get help around the house when needed (such as holding a ladder in a garden or help to move furniture), and who the respondent relies on for help when sick, such as shopping on his or her behalf. Combining these two questions yields a measure of the availability of local help providers, ranging from zero when the respondent has no one, to two when the respondent relies on two different individuals. The questions for local assistance were also asked for two alters (i.e who the respondent who turn to first, and second), allowing us to compute measures for the availability of local help providers.

Factor analysis shows that distance to all four types of support, and local help load on two different constructs (see tables 8 and 9 in the appendix), in line with our analytical distinction between geographic dispersion and local social involvement. Friendship with neighbors appears as a somewhat distinct dimension, however. The global Cronbach's α across all countries and dependent variables is high (0.85), indicating high internal consistency. This consistency is found within each country as well (see table 10 in the appendix section). Those two exploratory analyses, however, show that the items for geographic dispersion are much more cohesive than those for local involvement, cautioning against an overly simple interpretation of the link between neighboring and the availability of local help providers.

⁴ Spouses were not considered for the analyses since they are "local" in nature. Additionally, we coded "neighbor" answers as "1", "below 15 minutes".

4.3. Modeling strategy

Although a multilevel model might seem like a fitting option given the nested structure of the data and our interest in examining country-level variation, we choose not to implement this strategy here for several reasons. On one hand, the intra-class correlation coefficients for our dependent variables of interest – which indicate how much covariance occurs just in virtue of being in the same country – are much lower – between 0.01 and 0.05 - than the usual thresholds motivating the use of hierarchical linear models (Snijders and Bosker 1999). Second, and more importantly, having only six countries constitutes a severe statistical limitation resulting in large standard errors leading to unreliable estimates of country-level variance⁵. Third, this paper is to our knowledge the first to study cross-country variation in personal networks with a large international sample. As mentioned above, contextual variation is a slowly emerging aspect of the scholarship on personal networks, and still not a well understood one. We are thus more interested in precisely describing patterns of cross-country variation rather than predicting them with a set of country-level variables.

Those statistical and substantive reasons motivate the fixed effect approach we adopt here. We use OLS regression for modeling logged distances to support providers as well as the proportion of neighbors among friends⁶. We use an ordered logit model for the number of primary and secondary local help providers because the response variables are discrete and ordered along three categories. All reported coefficients use robust standard errors clustered by country and each model includes a country-level dummy variable to capture all unobserved country-level heterogeneity. I use probability weights to account for different sample sizes across countries as well as different probabilities of being included in the final analytical sample for each model⁷.

The main limitation of this strategy, of course, is that factors affecting heterogeneity across countries are unobserved. The pattern of cross-national variation, however, should be indicative of what is at work at producing differences across countries, if any. If it is geography, then we should observe similarities between countries with a comparable geography such as the U.S. and Australia or Hungary and Austria. If culture is at work, then we should observe similarities between Austria and West Germany. If economic structures influence personal networks, then countries like the US, Australia, West Germany and Austria which were well on their way to deindustrialization in the mid-1980s should differ from Hungary and Italy who had were much agriculture- and industry-based economic structures at that time.

Our main predictors of interest are the respondent's education level (ranging from 1, primary schooling or less to 5, college graduate), family income in purchasing power parity adjusted thousands 1986 American dollars (capped at 65), and a squared term for family income. Note that for all models presented below, we consider education to be continuous for ease of

⁵ Despite those caveats, we did replicate the results presented here in a multilevel model presented in table 13 of the appendix section. We thank an anonymous reviewer for this suggestion.

⁶ Because of the high proportion of people reporting 0% of neighbors among their friends, I re-run the regression model with a zero-inflated Poisson model and the results were substantively similar to the ones presented below using OLS. They are available upon request.

⁷ This is motivated by the fact that each response variable have different pattern of missingness. For example, in the case of alters providing material support (i.e. lending money), a respondent could have a missing value because he or she would rather go to a bank, or have no one to ask. In both cases, it is likely that those who go missing are not a random subsample and this could potentially bias our estimates. The inverse weighting procedure to correct for this possibility is explained in detail in the appendix section.

interpretation. We included controls for age, squared term for age, sex, marital status, location (urban, semirural, rural), network size (number of reported close kin members and friends), and church attendance⁸. Note that we dropped Great Britain from our final sample because it was missing the location variable, which has shown to be influential in past research on personal networks (Fischer 1982). Our final sample comprises 9,330 individuals reporting on their personal networks in 6 different countries. Table 1 (next page) gives summary statistics for the variables of interest broken down by country.

Table 1 about here

Before analyzing the social determinants of personal communities, let us acknowledge the general validity of the "community liberated" model: the descriptive statistics clearly show, on one hand, that respondents in various countries tend to live rather far away from their sources of support, i.e. one hour or more. On the other hand, it is clear that neighbors do not form a prominent share of friendship circles – at most a quarter in the Italian case. We do observe, however, large differences across countries and important spread around the means for all our outcome variables of interest, motivating a more in-depth analysis to which we switch now.

5. Results: Who has liberated communities?

5.1. Geographic dispersion of personal support networks

The table below presents the results of four linear regression analyses modeling distances to the first named sources of material support (providing money when needed), mental support (providing support when depressed, advice about important matters) and support when encountering issues with one's spouse or partner. In those models, respondents from all six countries are pooled together.

Table 2 about here

There are only a few isolated, significant predictors among demographic variables, such as the effect of marital status for material support, or the negative effect of religious attendance on the distance to provider of help for marital support. Overall, however, we note that demographic variables have little incidence on geographic dispersion.

Closer to our hypothesized predictors of interest, the effect of income is unexpected. Income has no effect on the distance to support provider for marital issues, and no effect on distance to advisor. It however has a curvilinear effect on distance to providers of mental support as indicated by the squared term. These coefficients draw an interesting picture in which respondents with low income levels are actually *farther* from their support system, and the expected positive between income and distance holds only above a certain income level.

⁸ The urban/rural and family income variables were scaled differently across country. The transformation procedures are outlined in the appendix section.

The effect of education is clearer and fits well with our hypotheses. A higher education level is consistently associated with more dispersed support systems. Once exponentiated, the coefficients are easily interpretable in percentage changes in distance: a one-unit increase in one's education level is associated with a 16% (i.e $(e^{0.169} - 1) * 100)$ increase in distance to one's alter providing material support, an 8.8% increase in distance to mental support, and a 13% increase in distance to advisor and provider of support for marital issues.

There are high levels of unobserved country heterogeneity: distance to support tends to be higher in Australia as compared to the US, our default category. It is almost uniformly lower in Italy, Hungary, West Germany and Austria, however. This might reflect differences in physical geography and patterns of settlement.

Table 3 below reports the results of similar models for each respondent's second support providing alters.

Table 3 about here

The results are broadly similar, and our parameter estimates take advantage of larger statistical power for second alters, due to the fact that respondents are less likely to resort to formal institutional support when it comes to secondary sources of support⁹. The effect of education is both substantial and consistent across all four types of support: a one-unit increase in education is associated with a 15.7, 12, 12.4 and 10.5% increase in distance to providers of material support, mental support, advice and support for marital issues, respectively. We observe, again, important levels of heterogeneity in distance to alters cross countries.

To gain a better understanding of country-level variation, we therefore interacted our strongest predictor, education level, with country dummy variables. Figure 1 reports the marginal effect of education on distance to primary support providers for each country. Figure 2 reports the same marginal effects for distance to secondary providers. The tables reporting intercepts and marginal effects have been omitted here for the sake of clarity¹⁰.

Figure 1 about here

Figure 2 about here

⁹ Recall, however, that we applied inverse weights to correct for likelihood to have missing values on our outcomes of interest so that our estimates are not biased.

¹⁰ They are available from the author upon request.

Several findings emerge. First of all, the effect of education on all four variables, and across primary and secondary alters is heterogeneous. Its magnitude varies strongly by country, and in some case no effect is observed as indicated by flat slopes (Australia for distance to provider of primary mental support, Hungary and Italy for distance to primary advisor). This being said, the effect of education is generally strong and remarkably consistent across both countries and types of support. In Austria, West Germany and the US, where the effect of education is strongest, being a college rather than a high school graduate (from "3" to "5" in the graphs) is associated, *ceteris paribus*, with an increase between one half and a full hour in distance to support providers. More generally, we note that educational attainment has a non-linear impact: college graduates are farther apart from their support providers than other educational categories. This is especially true in the US and West Germany, and to a lesser extent Australia and Austria.

Because the slopes represent marginal effects and all the other variables are held at their means, the intercept can be interpreted as baseline individuals having no formal education and holding mean values on all other variables. The differences in intercepts show important unobserved country-level differences in geographic dispersion. Australia and American personal support networks, in particular, are consistently more dispersed than in other countries at the high school level and beyond. If Canadian networks are roughly similar to American ones, this points to the peculiar aspect of North American personal communities and the context in which Wellman's theory applies best, namely educated North Americans. Of particular interest are the slopes for Italy and Hungary: not only do they show that educational attainment has little impact on geographic dispersion, but also that Italian and Hungarian support networks are consistently tighter than those of other countries. In terms of explaining cross-country variation, this suggests that culture plays little role in shaping personal networks, as Hungary and Italy form a rather odd couple in terms of either language, religion, and more generally, recent historical past. It rather points to unobserved factors at the geographic or economic level.

Overall, these results offer strong support for our hypotheses regarding the effect of education and the importance of different national contexts in shaping the geography of personal communities, which show important heterogeneity in how "liberated" they actually are, both across the class and the national context.

5.2. Local social involvement

We now switch to examining the respondents' friendship with neighbors as well as their reliance on multiple sources of support for small, local assistance. Table 3 reports the result of regression models for the proportion of neighbors among one's personal friends as well as the number of different individuals available for small, local assistance.

Table 4 about here

Religious attendance and network size have consistent effects on local involvement. Those with high rates of religious attendance have a higher proportion of friends who are also their neighbors, and are more likely to rely on different individuals for small, local assistance. A large personal network is associated with a decrease in the proportion of neighbors but an increase in the number of available alters to give local help. More importantly, education emerges once again as the strongest and most consistent predictor of local social involvement. A one-unit increase in educational attainment is associated with a 3% decrease in the number of neighbors among one's friends, across all countries and holding all other predictors constant. Similarly, it is associated with a strong decrease in in the probability of relying on several individuals for local assistance. To put those results in perspective, we followed the strategy adopted earlier to study geographic dispersion and allowed the slope for education to vary by country in order to better understand how it influences local social involvement. Figure 3 and 4 reports the marginal effects for the effect of education on the proportion of neighbors among friends and the probability of relying on two different individuals for the first and second alters named for local assistance.

Figure 3 about there

Figure 4 about here

Lending credence to Wellman's thesis, people across all six countries tend to have a rather small portion of their friends drawn from their neighborhood. A high school dropout in the U.S. with all other social characteristics set at their mean would, for example, have around 25% friends that are also neighbors. This proportion, however, decreases to around 15% for college graduates, or a 40% decrease. A similar decrease is found among Italian and Hungarian respondents. Among Austrian respondents, the share of neighbors in one's friendship circle drops from around 25 to 5%, or an 80% decrease. Somewhat surprisingly, the proportion of neighbors is resilient to the impact of education among West German and Australian respondents, however, indicating neighboring to be a more context-bound type of tie than previously thought.

The effect of education on the probability of naming two different individuals (rather than just one or none) for small, local assistance like getting help around the house or getting help when sick is very strong on the first named alters. The difference between someone with just primary schooling and a college graduate hovers between 10 and 20% percentage points, depending on countries. We note, however, that this probability remains high in Italy and Hungary – where the probability of college graduates to have two different local help providers is around 40% - perhaps reflecting patterns of local solidarity not found in other countries in 1986. The picture is more mixed in the case of whom the respondent who turn to second to get local help: only in Italy, and to a lesser extent, Austria and Australia do we find a similar effect of education. The effect of education is slightly positive in West Germany, and entirely insignificant in the US and Hungary, underlying once again the moderating effect on the national context on our hypothesized relationships between socioeconomic status and the degree to which one's personal network is locally anchored.

5.3 Robustness checks

We checked the validity of those results by testing different specification of both our dependent and independent variables. In particular, there are potential concerns that our outcome distance variables do not reflect real differences across countries (i.e. fewer people have alters who live 10+ hours way in Austria compared to Australia, for example). We therefore re-run all our analyses of geographic dispersion with a binary outcome measuring whether one's alter is close (less than an hour away) or far (an hour or more away). The results in table 11 (see appendix) are substantively similar to those presented here. Another potential worry had to do with the transformation of income: while we carefully used data

from the Penn World Tables to have a comparably reliable measure of purchasing power parity, we cannot exclude the possibility that those data for 1986 were approximate for certain countries and could have biased our analyses. We therefore re-run all of our analyses with alternative specifications for income, such as PPP-unadjusted income, and withincountry analyses using the original coding schemes in the original currencies for each country¹¹. We also re-ran analyses excluding the income variables – those results are presented in Table 11 in the appendix section. Across those alternative specifications, obtained results are similar to the ones presented here.

5.4 Summary of results

Returning to our original hypotheses and summarizing our findings, we found that education generally increased distance to providers of various forms of support and decreased the proportion of neighbors among close friends, bringing support to our *geographic* dispersion and our neighborhood embeddedness hypotheses (H1 and H2). We found income to have, however, no consistent impact. We found partial evidence for our local support hypothesis (H3), in the form of a decrease in the likelihood of having two different persons for small, local services. More educated respondents' local networks are not as rich, but this is more true of alters respondents thought about first for help than those they thought second after having been probed for secondary help providers. We found strong support for H4 regarding cross-country heterogeneity. The gaps between the intercepts in the marginal effects graphs show important baseline differences for the average individuals regardless of the influence of education. The different slopes for the effect of education on network geographic dispersion and local social involvement in turn indicate that location in a specific country mediates the effect of class on personal support networks: it has a much stronger effect in the US, Australia, West Germany and Austria compared to Italy and Hungary. Finally, we observed non-random differences in personal support network across countries: Hungarian and Italian networks repeatedly appear as being considerably different from Austrian, West German, Australian and American ones. It is important to note, in particular, that we did not see any salient pairings between Austrian and West German networks on one hand, and Australian and American ones on the other hand as H5a and H5b regarding the role of either geography or culture could lead us to believe. The national differences emerging from our analyses were clearly between Italy and Hungary and other countries in our sample. This suggests our third proposed line of demarcation – that of the economy – to be at work in our analyses, as Italy and Hungary were not service economies in the mid-1980s while Austria, Australia, West Germany and the US were well on their way to deindustrialization.

6. Discussion

6.1. Potential mechanisms for the effect of education on personal support networks

Our results point to the importance of education, rather than income, in influencing social support networks. We did not expect one variable to clearly emerge as more influential, however, and this begs the question of the mechanism operating through education (Kingston et al. 2003). While this paper is not the first one to document the impact

¹¹ Because of the large number of tables produced, we did not include them in the paper. They are however available upon request.

of education on personal networks (see Fischer 1982 chapter 13 for a similar finding in California), it certainly is the first one to do it in such depth, showing its consistent effect on many dimensions of personal networks in six different countries.

As in much research documenting a strong effect of education however, we can only propose plausible causal narratives for our result. One possible mechanism is the spatial mobility associated with education and university in particular. For example, the qualitative sociological literature on higher education in the United States documents the cultural aspects of the college experience, which often involves a scripted transition to adulthood with college featuring prominently as a milestone of spatial mobility away from the parental home (Clydesdale 2007, Armstrong and Hamilton 2013). This interpretation of our findings is bolstered by the especially strong effect of being a college graduate (rather than just a high school or having completed some college) on network geographic dispersion.

Another related mechanism is that of labor mobility, developed in the labor economics literature (McCormick 1997, Machin et al. 2011). This literature registers a strong link between education and spatial mobility and shows, in particular, that labor markets for more highly specialized individuals tend to be national rather than regional or local as in the case of manual and other less qualified workers (McCormick 1997). This translates in lower attachment to place and higher rate of spatial mobility in more industrialized countries with more specialized economies (Machin et al. 2011). The relationship between educational attainment and labor mobility is clearest in the US, where regional mobility has historically been higher than in Europe (Machin et al. 2011). This fits well with our results showing that the slopes for the effect of education on several aspects of personal support networks are often steepest in the US.

6.2. Potential sources of national variation

Our results indicate that geographic dispersion and local involvement vary strongly by country, and that, in turn, education is more predictive of those dimensions in countries that shared a similar economic structure. How can we explain those differences? As in the case of education, and because data constrains have led us to model cross-country heterogeneity as fixed effects carrying the influence of unobserved variables, we can only propose plausible explanations.

As alluded to earlier, one such explanation resides in economic development and compositional differences in labor markets. In 1986, Italy and Hungary were much more agriculture- industry-based than other countries in our sample. Industrial and agricultural labor markets are much less specialized than service-based ones prominent in other countries in our sample, translating in localized rather than national labor markets for most individuals. More generally, service intensive economies also tend to have higher standards of living and reduce the need for immediate and specialized networks of support, making it possible to entertain geographically looser, locally sparse personal support networks. This is especially plausible when comparing Hungary to Austria, a country with a relatively similar geography but very different economic structure and much larger average distance to support providers as indicated in table 1. In 1986 Italy and Hungary, most people have, according to this narrative, spatially proximate alters because of a higher need for informal support as well as more immediately available alters due to locally, rather than nationally organized labor markets. It is plausible that having a critical mass of alters in one location would in turn motivate those with higher educational attainment to seek to settle not too far away from their

informal support system, thus explaining the weaker effect of education on geographic dispersion in Italy and Hungary compared to other countries.

To gauge this explanation further and adjudicate with competing hypotheses based on geography or culture outlined earlier, we ran a set of exploratory models on the data from the UK¹². The results (see tables 5, 6 and 7 in the appendix) are broadly similar to those of the US and West German respondents for geographic dispersion, and to those of Australians, Austrian and West Germans for local social involvement. Those similarities cut across geographic and cultural lines, but not economic ones. The patterns observed in Italy and Hungary, such as weak educational effects on dispersion and large average probabilities of relying on different individuals for local help, do not hold in the UK. This comforts our interpretation of our results documenting cross-country heterogeneity under the angle of economic structures – the UK being a de-industrializing service economy in the mid-1980s – rather than geographic or cultural differences.

6.3. Embedding personal support networks: the importance of multi-layered contexts

What do these results tell us for the study of personal networks and social network theory? The first important takeaway is that having a "liberated" personal community is linked to an important form of social advantage in contemporary Western societies – educational attainment, which became all the more crucial for social mobility as Western economies progressively transitioned to service industries and knowledge-based economies during the second half of the 20th century. While we do find support for Wellman's original theory – it is true that people are not generally close to their sources of support, and not socially embedded in their neighborhood -, the evidence presented here suggests that Wellman's original theory suffers from a historical and geographic provincialism. "*Community liberated" applies best to the educated populations of Western countries with specialized, service-based economies inducing widespread labor mobility.* The corollary to this, of course, is that it does not work as well as in other geographic and other historical contexts without as much labor specialization – which actually encompasses most of the historical record.

The main theoretical contribution of this paper, therefore, is to refine the scope of Wellman's theory and to demonstrate the importance of the different social contexts in which personal networks unfold (Entwisle et al. 2007), both within – pointing to the importance of the unequal distribution of social resources allowing one to entertain a geographically dispersed support systems – and across countries – the type of macro-level economic structure inducing spatial mobility leading to dispersed networks and "thin" neighborhood communities.

7. Conclusion

This paper addresses the limits of an influential theory of personal networks, the "community liberated" argument. Specifically, the "community liberated" argument stipulates that contemporary support networks are geographically dispersed out of the neighborhood. This paper provides, to our knowledge, the most rigorous empirical test of

¹² Recall that we originally chose to exclude the UK from the analysis because it was missing the urban VS rural location variable which had been shown to be influential in earlier research (e.g. Fischer 1982). We thank an anonymous reviewer for suggesting to explore the UK data as part of our discussion of potential sources for national differences.

Wellman's influential theory as well as the most systematic comparative study of personal support networks to date. Taking cues from the urban ethnographic tradition and earlier work on personal networks, we hypothesized that because informal social support systems emerge out of situation of needs and structural constraints, they must necessarily reflect variation in endowment in social resources. While we, by and large, found support for Wellman's overall thesis, we worked at identifying the scope of "community liberated" in the form of the two different contexts in which such community unfolds: the class context and the national context.

Specifically, we showed that "community liberated" is a matter of degree, and not everyone's support system resemble this model, either within North America where it was originally theorized or in other countries. Higher levels of education militate toward personal networks being dispersed out of the neighborhood - this, however is more true in Australia, the US, Austria and West Germany, a difference we interpreted as reflecting different economic structures and different labor markets. This paper thus builds on the budding literature on networks and contexts (Entwistle et al 2007, Doreian and Conti 2012). Social networks analysts are now focusing on what influences social networks after several decades of research and theorizing assuming the *a priori* causal precedence of social structures (Vaisey and Lizardo 2010). We revisited the important question of personal communities from this perspective to explore the influence of class and national variation on social support networks.

While we discussed potential explanations for our results, the mechanisms behind the influence of the class context and the national context on personal support networks remain unclear. This constitutes an important limitation of this paper. How does variation in urbanization and physical geography at the country level influence individual-level systems of social support? Do certain formal institutions like the welfare state or organized religion influence the extent to which personal communities are liberated? Additionally, how has the general backlash against resource redistribution and organized social protections – often referred to as neoliberalism (Mijs. et al 2016) impacted the organization of informal social support? Has it made informal social support more important, and thus the entertainment of dispersed networks more costly? Those questions require larger datasets including a higher number of countries, as well as country level variables allowing for hierarchical modeling. This will allow network analysts to better understand how social networks unfold in different contexts, or in other words, how embeddedness itself is indeed embedded in certain social categories like class and nation.

Appendix

1 – Results from factor analysis and Cronbach's alpha for network geographic dispersion and local social involvement.

Table 8 about here Table 9 about here Table 10 about here Note that we used pairwise computation for Cronbach's alpha here, meaning that we used all available pairs rather than just the ones with non-missing values on all 11 outcomes, which would tremendously shrink sample size.

2 – Supplementary analyses

Table 5 about here Table 6 about here Table 7 about here Table 11 about here Table 12 about here Table 13 about here

2 – Inverse weighting procedure to account for different patterns of missingness in the dependent variables:

Each dependent variable could be missing because the respondent did not answer a question that was necessary to the construction of this particular variable (e.g. if one does not answer the question on how many friends he or she has, it is impossible to know the proportion of neighbors among one's personal friends). Another important source of missingness for the distance variables was due to someone either not having any alter to seek support from, or to someone privilege formal institutions to get support from, such getting a loan from a bank rather than from one's alter. We first constructed binary outcome variables indicating missingness due to any of those three reasons (which capture all missing cases) and ran logistic regression models with our individual predictors included in the main models. We thus obtained probabilities of being included in the final analytical sample for each outcome variable, which we then inversely weighted to increase probability weights for those observations most likely to be missing in our regression models. We thus produced 11 different weights (one for each outcome variable), which we then multiply with probability weights accounting for different sample size across countries.

3 – Transformation procedure for the urban/rural and family income variables:

The population thresholds for classifying respondents as urban or rural (with various intermediate categories in between) vary widely across countries in the ISSP data. The Hungarian survey data had three categories and represented the smallest common denominator. We applied the same urban / semirural / rural typology for the other five countries using the following coding rules:

Australia: >100k = Large city, 1k-100k = smaller city, <1k = rural West Germany: >100k= Large city, 5k-100k - smaller city, <5k = rural USA: >250k = large city, 2.5k-250k = smaller city, <2.5k=rural Austria: >50k = Large city, 5k-50K = smaller city, <5k=rural Italy: >100k= Large city, 5k-100k, smaller city, <5k=rural

For family income, we converted all currencies into 1986 USD using information on exchange rates and Purchase Power Parity equivalence found in the 5.6 edition of the Penn World Tables. We first transformed all national currencies in US dollars using the average exchange rate during the twenty years preceding the administration of the ISSP survey in each country. We then used data from the Penn World Tables to calculate the average transformation rate of US dollars to reflect realistic, purchasing power in each country.

4 - Question wording in 1986 ISSP Survey:

For distance:

"About how long would it take you to get to where your [kin member or best friend] lives? Think of the time it usually takes door to door?"

- 01. Less than 15 minutes
- 02. Between 15 and 30 minutes
- 03. Between 30 minutes and 1 hour.
- 04. Between 1 and 2 hours.
- 05. Between 2 and 3 hours.
- 06. Between 3 and 5 hours.
- 07. Between 5 and 12 hours.
- 08. Over 12 hours.

This question was asked for father, mother, brother, sister, daughter, son, best friend and one other close relative of the respondent's choosing. If the respondent had multiples siblings, the interviewer asked him to think about the one he/she feels closest to.

For material support:

"Suppose you needed to borrow a large sum of money. Who would you turn to first for help?"

- 00. No one
- 01. Husband / wife / partner
- 02. Mother
- 03. Father
- 04. Daughter
- 05. Son
- 06. Sister
- 07. Brother
- 08. Other relative, including in-laws
- 09. Closest friend
- 10. Other friend
- 11. Neighbor
- 12. Someone you work with
- 13. Bank, building society or other financial institution
- 14. Employer

- 15. Government or social services
- 16. Other

For mental support:

"Now suppose you felt just a bit down or depressed, and you wanted to talk about it. Who would you turn to first for help?"

- 00. No one
- 01. Husband / wife / partner
- 02. Mother
- 03. Father
- 04. Daughter
- 05. Son
- 06. Sister
- 07. Brother
- 08. Other relative, including in-laws
- 09. Closest friend
- 10. Other friend
- 11. Neighbor
- 12. Someone you work with
- 13. Church, clergy or priest
- 14. Family doctor (GP)
- 15. Psychologist, psychiatrist, marriage guidance or other professional counselor
- 16. Other

For help with partner/spouse:

Suppose you were very upset about a problem with your husband, wife or partner, and haven't been able to sort it out with them. Who would you turn to first for help?

- 00. No one
- 01. Husband / wife / partner
- 02. Mother
- 03. Father
- 04. Daughter
- 05. Son
- 06. Sister
- 07. Brother
- 08. Other relative, including in-laws
- 09. Closest friend
- 10. Other friend
- 11. Neighbor
- 12. Someone you work with
- 13. Church, clergy or priest
- 14. Family doctor (GP)
- 15. Psychologist, psychiatrist, marriage guidance or other professional counselor
- 16. Other

For advice:

"And now suppose you needed advice about an important change in your life - for example about a job, or moving to another part of the country. Who would you turn to first for help?"

- 00. No one
- 01. Husband / wife / partner
- 02. Mother
- 03. Father
- 04. Daughter
- 05. Son
- 06. Sister
- 07. Brother
- 08. Other relative, including in-laws
- 09. Closest friend
- 10. Other friend
- 11. Neighbor
- 12. Someone you work with
- 13. Church, clergy or priest
- 14. Family doctor (GP)
- 15. Psychologist, psychiatrist, marriage guidance or other professional counselor
- 16. Sollicitor / Lawyer
- 17. Other

Each of those question on primary alters who followed by a follow-up question ("And who would you turn to second?" which we used here to study secondary help providers.

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Variable (range)	Australia	West Germany	USA	Austria	Hungary	Italy
Distance to material support 1 in hours (0.25-12)	2.28	1.54	2.53	1.22	1.13	0.97
	(3.52)	(2.51)	(3.83)	(2.29)	(1.94)	(2.34)
Distance to mental support 1 in hours (0.25-12)	1.48	1.15	1.50	0.96	0.64	0.65
	(2.81)	(2.18)	(2.96)	(1.88)	(1.10)	(1.79)
Distance to advisor 1 in hours (0.25-12)	1.48	1.21	1.90	1.33	0.99	0.94
	(2.69)	(2.21)	(3.35)	(2.45)	(1.58)	(2.36)
Distance to support for marital issues 1 in hours (0.25-12)	1.55	1.25	1.85	1.05	0.84	0.80
	(2.88)	(2.30)	(3.31)	(1.96)	(1.48)	(2.04)
Distance to material support 2 in hours (0.25-12)	2.20	1.56	2.05	1.17	1.00	1.06
	(3.43)	(2.60)	(3.39)	(2.27)	(1.70)	(2.50)
Distance to mental support 2 in hours (0.25-12)	1.37	1.16	1.66	0.93	0.77	0.84
	(2.67)	(2.20)	(3.12)	(1.69)	(1.46)	(2.16)
Distance to advisor 2 in hours (0.25-12)	1.72	1.26	1.95	0.98	0.98	0.98
	(2.99)	(2.26)	(3.38)	(1.82)	(1.70)	(2.34)
Distance to support for marital issues 2 in hours (0.25-12)	1.93	1.45	1.99	1.14	0.90	0.93
	(3.30)	(2.55)	(3.50)	(2.17)	(1.61)	(2.38)
Proportion of neighbors among close friends (0-1)	0.14	0.11	0.19	0.18	0.17	0.26
	(0.24)	(0.25)	(0.29)	(0.31)	(0.30)	(0.35)
<pre># primary alters for local</pre>	1.25	1.32	1.33	1.35	1.44	1.45
support (0-2)	(0.45)	(0.49)	(0.49)	(0.49)	(0.51)	(0.51)
# secondary alters for local support (0-2)	1.55	1.54	1.59	1.56	1.63	1.59
	(0.51)	(0.53)	(0.51)	(0.51)	(0.49)	(0.51)
Age (16-92)	42.70	44.91	45.43	46.88	37.03	42.60
	(16.20)	(17.37)	(17.80)	(17.83)	(15.44)	(15.52)

10.67

(7.67)

3.25

(1.84)

24.40

(15.93)

2.61

(1.02)

Network size (0-102)

Religious attendance (1-6)

Family income in PPP adjusted

thousands 1986 USD (0.5-65)

Education level (1, primary - 5,

college)

6.79

(4.74)

3.40

(1.72)

11.22

(6.39)

3.22

(0.64)

10.82

(9.52)

4.22

(1.81)

26.22

(17.51)

3.13

(1.02)

6.57

(4.23)

3.76

(1.82)

11.21

(6.26)

2.78

(0.78)

6.42

(5.69)

1.74

(1.30)

0.55

(0.26)

2.23

(1.34)

Table 1: Mean and standard deviation (between parentheses) for variables of interest

6.69

(3.47)

4.02

(1.80)

2.83

(1.36)

2.38

(1.18)

Location (1, urban – 3, rural)	1.48	1.50	1.50	2.18	2.06	1.91
	(0.66)	(0.70)	(0.74)	(0.87)	(0.88)	(0.69)
Observations	1250	2809	1470	1027	1747	1027

	(1)	(2)	(3)	(4)
	Distance to primary alter for material support (logged)	Distance to primary alter for mental support (logged)	Distance to primary advisor (logged)	Distance to primary alter for support for marital issues (logged)
Age	0.017	0.011	0.019	0.013
	(0.016)	(0.007)	(0.014)	(0.009)
Age squared	-0.000	-0.000	-0.000	-0.000
	(0.000)	(0.000)	(0.000)	(0.000)
Male	-0.052	0.017	-0.212*	-0.001
	(0.045)	(0.039)	(0.079)	(0.027)
Widowed (reference: married)	-0.197 (0.107)	-0.130 (0.089)	-0.140 (0.131)	-0.028 (0.053)
Divorced	0.159+	-0.061	-0.116	0.011
	(0.073)	(0.038)	(0.117)	(0.069)
Separated	-0.264*	-0.005	-0.164	-0.077
	(0.070)	(0.087)	(0.085)	(0.118)
Never married	0.307**	0.042	0.261+	0.061
	(0.067)	(0.027)	(0.125)	(0.047)
Semirural	-0.141	0.002	0.094	-0.100
(reference: urban)	(0.092)	(0.088)	(0.076)	(0.070)
Rural	-0.084	-0.058	0.067	-0.028
	(0.101)	(0.109)	(0.114)	(0.083)
Religious attendance	-0.007	-0.016	-0.011	-0.026*
	(0.008)	(0.016)	(0.027)	(0.009)
Network size	0.005	0.003	0.001	0.003
	(0.006)	(0.002)	(0.003)	(0.003)
Family income in PPP-adjusted 1986 k\$	-0.011 (0.008)	-0.014** (0.003)	0.002 (0.008)	0.004 (0.003)
Family income squared	0.000*	0.000**	0.000	-0.000
	(0.000)	(0.000)	(0.000)	(0.000)
Education level	0.169*	0.084*	0.121	0.121*
	(0.044)	(0.031)	(0.063)	(0.034)
Australia	0.028	0.109*	-0.239*	-0.036

Table 2: Results for cross-country OLS regression analyses of distance to primary alters for various forms of support

	(0.034)	(0.029)	(0.067)	(0.027)
West Germany	-0.365**	-0.074**	-0.332**	-0.224**
	(0.074)	(0.017)	(0.066)	(0.038)
USA	-	-	-	-
Austria	-0.392**	-0.100*	-0.085	-0.222**
	(0.086)	(0.029)	(0.087)	(0.050)
Hungary	-0.365+	-0.315**	-0.223	-0.201*
	(0.163)	(0.061)	(0.120)	(0.069)
Italy	-0.634**	-0.540***	-0.605***	-0.410**
	(0.139)	(0.031)	(0.085)	(0.064)
Constant	-1.146+	-1.002**	-1.331**	-1.149**
	(0.458)	(0.159)	(0.277)	(0.230)
Observations	2338	2763	1842	4601
R^2	0.089	0.054	0.079	0.054

	(1)	(2)	(3)	(4)
	Distance to secondary alter for material support (logged)	Distance to secondary alter for mental support (logged)	Distance to secondary advisor (logged)	Distance to secondary alter for support for marital issues (logged)
Age	0.030+	0.021*	0.020*	0.025**
	(0.012)	(0.007)	(0.006)	(0.006)
Age squared	-0.000	-0.000+	-0.000+	-0.000*
	(0.000)	(0.000)	(0.000)	(0.000)
Male	-0.059	-0.014	-0.022	-0.058
	(0.042)	(0.040)	(0.016)	(0.048)
Widowed	0.175	0.040	0.201*	-0.136
(reference: married)	(0.131)	(0.051)	(0.068)	(0.084)
Divorced	0.090	0.037	0.118	-0.040
	(0.152)	(0.085)	(0.122)	(0.046)
Separated	0.015	0.182*	0.045	0.019
	(0.054)	(0.069)	(0.067)	(0.146)
Never married	0.205*	0.029	0.131	0.020
	(0.073)	(0.056)	(0.110)	(0.063)
Semirural	-0.154	-0.109+	-0.078	-0.049
(reference: urban)	(0.098)	(0.043)	(0.074)	(0.050)
Rural	-0.126	-0.024	-0.025	-0.137+
	(0.109)	(0.068)	(0.053)	(0.066)
Religious	-0.026	-0.017	-0.026**	-0.013
attendance	(0.021)	(0.011)	(0.007)	(0.020)
Network size	0.002	0.001	-0.001	0.006
	(0.001)	(0.002)	(0.003)	(0.003)
Family income in PPP-adjusted 1986 k\$	0.001 (0.004)	-0.002 (0.005)	-0.003 (0.003)	-0.017+ (0.008)
Family income squared	0.000	0.000	0.000	0.000*
	(0.000)	(0.000)	(0.000)	(0.000)
Education level	0.146*	0.114*	0.117*	0.100*
	(0.041)	(0.042)	(0.037)	(0.028)
Australia	0.243***	-0.013	0.027	0.142**
	(0.027)	(0.028)	(0.032)	(0.024)

Table 3: Cross-country regression analyses on distance to secondary alters for various forms of support

West Germany	-0.144**	-0.202***	-0.327**	-0.094+
	(0.026)	(0.028)	(0.069)	(0.039)
USA	-	-	-	-
Austria	-0.213**	-0.183**	-0.331*	-0.116*
	(0.036)	(0.040)	(0.087)	(0.041)
Hungary	-0.140+	-0.244*	-0.258	-0.306*
	(0.069)	(0.061)	(0.133)	(0.092)
Italy	-0.318***	-0.368**	-0.476*	-0.528**
	(0.039)	(0.061)	(0.122)	(0.122)
Constant	-1.471**	-1.295**	-1.114**	-1.174**
	(0.339)	(0.270)	(0.256)	(0.177)
Observations	3328	4246	4587	3727
R^2	0.073	0.043	0.052	0.057

	(1)	(2)	(3)
	% neighbors among friends	# primary alters available for small local favors (help around the house & when sick)	# secondary alters available for small local favors (help around the house & when sick)
Age	-0.001	-0.002	-0.013
	(0.002)	(0.016)	(0.008)
Age squared	0.000	-0.000	-0.000
	(0.000)	(0.000)	(0.000)
Male	-0.037+	0.267**	0.218***
	(0.016)	(0.093)	(0.055)
Widowed (default is married)	0.032	0.622**	0.124
	(0.017)	(0.208)	(0.157)
Divorced	-0.031	0.561***	-0.172
	(0.025)	(0.146)	(0.192)
Separated	-0.019	0.477	-0.199+
	(0.015)	(0.392)	(0.120)
Never married	-0.015	0.569***	-0.173+
	(0.020)	(0.143)	(0.095)
Semirural (default is urban)	0.014*	-0.175+	-0.064
	(0.005)	(0.102)	(0.099)
Rural	0.054**	-0.067	-0.100
	(0.013)	(0.109)	(0.096)
Religious attendance	0.005+	0.061***	0.054***
	(0.002)	(0.015)	(0.014)
Degree	-0.002**	0.009***	0.008*
	(0.000)	(0.002)	(0.003)
Family income in PPP- adjusted 1986 k\$	-0.001 (0.001)	0.005	0.014+
Family income squared	0.000	-0.000	-0.000+
	(0.000)	(0.000)	(0.000)
Education level	-0.030**	-0.168***	-0.102**
	(0.006)	(0.027)	(0.037)
Australia	-0.048***	-0.340***	-0.289***
	(0.002)	(0.025)	(0.039)
West Germany	-0.064***	0.140+	-0.154*
	(0.008)	(0.083)	(0.078)

Table 4: Cross-country regression analyses on local social involvement

USA	-	-	-
Austria	-0.036**	0.190*	-0.037
	(0.007)	(0.093)	(0.075)
Hungary	-0.027+	0.627***	0.230*
	(0.013)	(0.187)	(0.110)
Italy	0.034*	0.571***	0.002
-	(0.013)	(0.164)	(0.085)
Constant	0.273**		
	(0.041)		
cut1		-4 954***	-5 447***
Constant		(0.231)	(0.448)
cut2		0 643***	-1 031***
Constant		(0.180)	(0.294)
Observations	6702	8117	7437
<i>R</i> ²	0.075		

	(1)	(2)	(3)	(4)
	Distance to primary alter for material support (logged)	Distance to primary alter for mental support (logged)	Distance to primary advisor (logged)	Distance to primary alter for support for marital issues (logged)
Age	0.007	0.026	0.022	0.020
	(0.025)	(0.019)	(0.028)	(0.016)
Age squared	0.000	-0.000	-0.000	-0.000
	(0.000)	(0.000)	(0.000)	(0.000)
Male	-0.235	0.016	-0.292	-0.054
	(0.172)	(0.151)	(0.205)	(0.092)
Widowed (default is married)	0.027	-0.117	-0.141	-0.214
	(0.242)	(0.213)	(0.225)	(0.181)
Divorced	-0.187	-0.380*	-0.217	-0.099
	(0.196)	(0.150)	(0.214)	(0.157)
Never married	0.294	-0.233	-0.222	-0.006
	(0.365)	(0.176)	(0.346)	(0.193)
Religious	-0.102*	-0.008	-0.023	0.028
attendance	(0.042)	(0.032)	(0.048)	(0.025)
Network size	0.072**	0.010	-0.011	0.004
	(0.025)	(0.023)	(0.028)	(0.014)
Family income in PPP-adjusted 1986 k\$	0.043 (0.064)	0.004 (0.048)	0.003 (0.066)	-0.025 (0.037)
Family income squared	-0.001	0.000	-0.001	0.002
	(0.003)	(0.002)	(0.003)	(0.002)
Education level	0.289**	0.222*	0.462***	0.101
	(0.089)	(0.100)	(0.106)	(0.063)
Constant	-2.339***	-2.171***	-2.345**	-1.684***
	(0.675)	(0.595)	(0.830)	(0.451)
Observations	152	227	130	441
R^2	0.161	0.077	0.174	0.056

Table 5: Regression analyses on distance to primary alters for various forms of support in the United Kingdom

	(1)	(2)	(3)	(4)
	Distance to secondary alter for material support (logged)	Distance to secondary alter for mental support (logged)	Distance to secondary advisor (logged)	Distance to secondary alter for support for marital issues (logged)
Age	0.001 (0.025)	-0.006 (0.020)	0.009 (0.022)	0.034 (0.024)
Age squared	0.000 (0.000)	0.000 (0.000)	0.000 (0.000)	-0.000 (0.000)
Male	-0.202 (0.125)	0.014 (0.091)	-0.039 (0.097)	0.144 (0.116)
Widowed (default is married)	-0.086	-0.102	0.144	0.069
Divorced	-0.050 (0.261)	0.202 (0.211)	0.104 (0.209)	0.387 (0.280)
Never married	0.891** (0.307)	0.196 (0.199)	0.285 (0.250)	0.291 (0.305)
Religious attendance	0.024 (0.034)	0.070** (0.027)	0.059* (0.027)	0.044 (0.032)
Network size	0.028 (0.018)	0.010 (0.015)	0.011 (0.016)	0.005 (0.019)
Family income in PPP-adjusted 1986 k\$	0.019	0.021	0.012	0.038
	(0.049)	(0.041)	(0.042)	(0.047)
Family income squared	-0.000	-0.000	-0.000	-0.001
Education level	0.108 (0.083)	0.035 (0.064)	0.168* (0.070)	(0.002) 0.221** (0.078)
Constant	-1.714** (0.583)	-1.505** (0.509)	-1.919*** (0.536)	-2.751*** (0.586)
Observations	301	455	494	401
R^2	0.114	0.073	0.083	0.092

Table 6: Regression analyses on distance to secondary alters for various forms of support in the United Kingdom

 K²
 0.117

 Standard errors in parentheses
 + p<0.10, * p<0.05, ** p<0.01, *** p<0.001</td>

	(1)	(2)	(3)
	% neighbors among friends	# primary alters available for small local favors (help around the house & when sick)	# secondary alters available for small local favors (help around the house & when sick)
Age	-0.010+	-0.031	0.005
	(0.006)	(0.038)	(0.035)
Age squared	0.000+	0.000	-0.000
	(0.000)	(0.000)	(0.000)
Male	-0.016	0.303+	0.114
	(0.027)	(0.181)	(0.166)
Widowed (default is married)	-0.111	0.512	0.019
	(0.068)	(0.368)	(0.348)
Divorced	-0.099	1.493***	0.048
	(0.063)	(0.385)	(0.386)
Never married	-0.114*	1.564***	-0.568+
	(0.050)	(0.327)	(0.331)
Religious attendance	0.001	0.029	-0.056
	(0.007)	(0.048)	(0.044)
Network size	-0.005	0.020	0.044
	(0.005)	(0.031)	(0.027)
Family income in PPP-	-0.044***	-0.066	-0.055
adjusted 1986 k\$	(0.011)	(0.067)	(0.069)
Family income squared	0.001***	0.002	0.002
	(0.000)	(0.003)	(0.003)
Education level	-0.018	-0.206+	-0.023
	(0.014)	(0.118)	(0.098)
Constant	0.785*** (0.157)		
cut1		-6.430***	-5.807***
Constant		(1.167)	(1.054)
cut2		0.081	-0.910
Constant		(0.975)	(0.910)
Observations R^2	581 0.108	739	692

Table 7: Regression analyses on local social involvement in the United Kingdom

Standard errors in parentheses + p<0.10, * p<0.05, ** p<0.01, *** p<0.001

Variable	Factor 1	Factor 2	Uniqueness
Distance to primary material support	0.8480	-0.0349	0.2797
Distance to primary mental support	0.8424	-0.0167	0.2901
Distance to primary advisor	0.8896	0.0406	0.2070
Distance to primary support for marital issues	0.8788	0.0083	0.2276
% neighbors among friends	-0.0802	-0.1822	0.9604
# different primary alters for local support (help around the house & when sick)	-0.0169	0.8347	0.3030
# different secondary alters for local support (help around the house & when sick)	-0.0004	0.8343	0.3040

Table 8: Results from factor analysis on distance to primary support providers and local social involvement

Table 9: Results from factor analysis on distance to secondary support providers and local social involvement

Variable	Factor 1	Factor 2	Uniqueness
Distance to secondary material support	0.8121	-0.0477	0.3382
Distance to secondary mental support	0.8337	-0.0921	0.2965
Distance to secondary advisor	0.8689	0.0950	0.2359
Distance to secondary support for marital issues	0.8311	0.0668	0.3047
% neighbors among friends	-0.1013	-0.0914	0.9814
# different primary alters for local support (help around the house & when sick)	-0.1441	0.7940	0.3487
# different secondary alters for local support (help around the house & when sick)	-0.1676	0.7743	0.3724

Country	Cronbach's α	Cronbach's α 95% one-sided confidence interval
Australia	.7341	.7145
West Germany	.8503	.8429
United States	.8421	.8312
Austria	.8660	.8550
Italy	.7888	.7757
Hungary	.8420	.8288
Global	.8536	0.8500

Table 10: Internal consistency of items for network geographic dispersion and local social involvement by country

	(1)	(1) (2)		(4)	(5)	(6)	(7)	(8)
	Material 1	Mental 1	Advice 1	Marital support 1	Material 2	Mental 2	Advice 2	Marital support 2
Age	0.045	0.044	0.044	0.041*	0.052*	0.057**	0.052***	0.061***
	(0.038)	(0.033)	(0.042)	(0.018)	(0.021)	(0.018)	(0.015)	(0.018)
Age	-0.000	-0.000	-0.000	-0.000	-0.000+	-0.000**	-0.000*	-0.000*
squared	(0.000)	(0.000)	(0.000)	(0.000)	(0.000)	(0.000)	(0.000)	(0.000)
Male	-0.089	0.129	-0.301	0.031	-0.129+	-0.094	-0.077	-0.081
	(0.090)	(0.103)	(0.230)	(0.084)	(0.078)	(0.077)	(0.061)	(0.081)
Widowed (default is married)	-0.223 (0.214)	-0.276 (0.194)	-0.068 (0.212)	0.008 (0.133)	0.265 (0.232)	0.002 (0.158)	0.328* (0.159)	-0.395*** (0.097)
Divorced	0.226***	-0.257+	-0.115	-0.075	0.226	0.006	0.105	-0.005
	(0.048)	(0.140)	(0.263)	(0.107)	(0.277)	(0.189)	(0.235)	(0.116)
Separated	-0.552***	0.119	-0.278	-0.353+	0.176	0.521***	0.190	-0.023
	(0.136)	(0.147)	(0.373)	(0.184)	(0.173)	(0.112)	(0.137)	(0.257)
Never	0.773***	0.244*	0.719*	0.203*	0.524***	0.208+	0.344+	0.160
married	(0.133)	(0.103)	(0.286)	(0.100)	(0.122)	(0.118)	(0.203)	(0.133)
Semirural (default is urban)	0.004 (0.177)	0.250+ (0.132)	0.435*** (0.075)	-0.063 (0.156)	-0.086 (0.212)	-0.099 (0.157)	0.048 (0.197)	0.057 (0.107)
Rural	0.039	0.102	0.321	0.092	0.066	0.166	0.235+	-0.052
	(0.137)	(0.244)	(0.330)	(0.157)	(0.232)	(0.180)	(0.129)	(0.104)
Religious attendance	-0.002	0.008	-0.003	-0.040*	-0.039	-0.026	-0.039*	-0.022
	(0.017)	(0.054)	(0.045)	(0.018)	(0.043)	(0.031)	(0.016)	(0.032)
Network	0.009	0.000	0.001	0.002	0.003+	0.005	-0.001	0.011+
size	(0.010)	(0.007)	(0.006)	(0.005)	(0.002)	(0.004)	(0.006)	(0.006)
Family income in PPP- adjusted 1986 k\$	-0.013 (0.021)	-0.027** (0.009)	0.010 (0.017)	0.002 (0.007)	0.005 (0.006)	-0.010 (0.008)	-0.012 (0.009)	-0.028 (0.019)
Family income squared	0.000 (0.000)	0.000** (0.000)	0.000 (0.000)	-0.000 (0.000)	-0.000 (0.000)	0.000 (0.000)	0.000 (0.000)	0.000* (0.000)

Table 11: Results for logistic regression analyses with binary measures of distances to support providing alters (0: below 1 hour, 1: 1 hour or beyond). Note: Each model name has been simplified so as to save space ("Material 1": Distance to primary alter for material support)

Education level	0.302***	0.135	0.187	0.240***	0.276***	0.284***	0.259***	0.199*
	(0.066)	(0.095)	(0.128)	(0.059)	(0.069)	(0.073)	(0.060)	(0.078)
Australia	0.033	0.347***	-0.434***	-0.068	0.374***	0.026	0.111*	0.275***
	(0.062)	(0.089)	(0.131)	(0.052)	(0.059)	(0.049)	(0.051)	(0.050)
West	-0.385*	0.174***	-0.380*	-0.304***	-0.113	-0.341***	-0.478***	-0.129
Germany	(0.163)	(0.037)	(0.187)	(0.091)	(0.083)	(0.064)	(0.126)	(0.109)
USA	-	-	-	-	-	-	-	-
Austria	-0.549**	-0.055	0.020	-0.308**	-0.192+	-0.346**	-0.546***	-0.163
	(0.171)	(0.050)	(0.225)	(0.119)	(0.102)	(0.107)	(0.162)	(0.118)
Hungary	-0.396	-0.580***	-0.251	-0.342*	-0.165	-0.431***	-0.469+	-0.559*
	(0.344)	(0.130)	(0.381)	(0.170)	(0.196)	(0.126)	(0.263)	(0.276)
Italy	-1.223***	-1.594***	-1.374***	-1.145***	-0.745***	-1.108***	-1.053***	-1.282***
	(0.329)	(0.062)	(0.302)	(0.136)	(0.120)	(0.129)	(0.245)	(0.300)
Constant	-3.010**	-3.014***	-3.237**	-2.862***	-3.151***	-3.423***	-2.913***	-2.963***
	(1.043)	(0.836)	(0.992)	(0.582)	(0.604)	(0.576)	(0.511)	(0.547)
Observatio ns	2338	2763	1842	4601	3328	4246	4587	3727

Table 12: Results for regression analyses on distances to alters for various forms of support and local social involvement, excluding variables for income. Note: Each model name has been simplified so as to save space ("Material 1": Distance to primary alter for material support)

	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)
	Material 1	Mental 1	Advice 1	Marital support 1	Material 2	Mental 2	Advice 2	Marital support 2	% neighb ors	Local help 1	Local help 2
Age	0.015 (0.015)	0.011 (0.006)	0.023 (0.012)	0.014 (0.008)	0.031* (0.011)	0.021* (0.007)	0.020* (0.005)	0.023* * (0.005)	-0.001 (0.002)	-0.003 (0.014)	-0.012 (0.009)
Age squared	-0.0 (0.000)	-0.000 (0.000)	-0.000 (0.000)	-0.000 (0.000)	-0.000+ (0.000)	-0.000+ (0.000)	0.000+ (0.000)	-0.000* (0.000)	0.000+ (0.000)	-0.000 (0.000)	-0.000 (0.000)
Male	-0.055 (0.048)	0.011 (0.039)	-0.200+ (0.085)	0.002 (0.028)	-0.056 (0.044)	-0.015 (0.038)	-0.024 (0.016)	-0.061 (0.043)	-0.038+ (0.015)	0.266* * (0.089)	0.221*** (0.053)
Widowed (default is married)	-0.169 (0.105)	-0.114 (0.082)	-0.153 (0.134)	-0.037 (0.058)	0.165 (0.140)	0.043 (0.043)	0.208* (0.069)	-0.115 (0.100)	0.034+ (0.016)	0.622* * (0.224)	0.105 (0.164)
Divorced	0.168 (0.098)	-0.047 (0.053)	-0.152 (0.128)	-0.001 (0.064)	0.077 (0.158)	0.040 (0.095)	0.125 (0.109)	-0.027 (0.039)	-0.028 (0.022)	0.566* ** (0.137)	-0.182 (0.179)
Separated	-0.259** (0.056)	-0.005 (0.091)	-0.186 (0.103)	-0.086 (0.110)	0.008 (0.047)	0.183+ (0.075)	0.048 (0.067)	0.024 (0.155)	-0.018 (0.016)	0.482 (0.392)	-0.204+ (0.120)
Never married	0.315* (0.088)	0.055+ (0.027)	0.233 (0.144)	0.052 (0.052)	0.194* (0.072)	0.032 (0.062)	0.136 (0.109)	0.029 (0.071)	-0.013 (0.020)	0.573* ** (0.145)	-0.179* (0.088)
Semirural (default is urban)	-0.144 (0.092)	-0.001 (0.084)	0.087 (0.075)	-0.102 (0.070)	-0.156 (0.098)	-0.108+ (0.046)	-0.078 (0.077)	-0.049 (0.050)	0.015* (0.005)	-0.172+ (0.101)	-0.062 (0.098)
Rural	-0.086 (0.102)	-0.060 (0.105)	0.059 (0.117)	-0.031 (0.083)	-0.127 (0.109)	-0.023 (0.068)	-0.024 (0.056)	-0.131 (0.068)	0.055* * (0.013)	-0.067 (0.112)	-0.102 (0.096)

Religious attendance	-0.007 (0.008)	-0.016 (0.017)	-0.011 (0.026)	-0.026* (0.009)	-0.026 (0.021)	-0.017 (0.011)	0.026* * (0.006)	-0.013 (0.019)	0.005+ (0.002)	0.061* ** (0.015)	0.053*** (0.015)
Network size	0.005 (0.006)	0.003 (0.003)	0.001 (0.003)	0.003 (0.003)	0.001 (0.001)	0.001 (0.002)	-0.001 (0.003)	0.006 (0.003)	0.002* * (0.000)	0.009* ** (0.002)	0.008* (0.003)
Education level	0.170* (0.046)	0.083* (0.028)	0.130 (0.067)	0.124* (0.037)	0.151* (0.042)	0.113* (0.043)	0.116* (0.042)	0.101* (0.032)	0.030* * (0.006)	- 0.171* ** (0.029)	-0.104** (0.034)
Australia	0.017 (0.034)	0.098* (0.030)	0.252* * (0.056)	-0.035 (0.024)	0.242*** (0.028)	-0.014 (0.026)	0.025 (0.028)	0.124* * (0.023)	0.048* ** (0.002)	0.334* ** (0.022)	0.280*** (0.031)
West Germany	0.356*** (0.022)	-0.062* (0.022)	0.405* ** (0.014)	0.245*** (0.015)	0.177*** (0.020)	0.196* ** (0.014)	0.316* ** (0.014)	0.088* ** (0.009)	0.059* ** (0.004)	0.164* ** (0.019)	0.153*** (0.024)
USA	-	-	-	-	-	-	-	-	-	-	-
Austria	0.386*** (0.035)	-0.096+ (0.040)	0.154* * (0.037)	0.241*** (0.029)	-0.245** (0.038)	0.177* ** (0.024)	0.320* ** (0.036)	0.110* ** (0.012)	0.031* ** (0.003)	0.212* ** (0.030)	-0.035 (0.045)
Hungary	-0.268** (0.060)	-0.192+ (0.076)	-0.327* (0.089)	-0.252** (0.049)	-0.180+ (0.071)	0.227* * (0.043)	-0.221* (0.069)	0.166* * (0.037)	-0.014* (0.005)	0.615* ** (0.036)	0.117 (0.074)
Italy	0.558*** (0.055)	0.449*** (0.043)	0.705* ** (0.035)	0.453*** (0.039)	0.356*** (0.044)	0.353* ** (0.027)	0.445* ** (0.059)	0.422* ** (0.035)	0.045* ** (0.004)	0.571* ** (0.038)	-0.080+ (0.041)
Constant	-1.210*	- 1.132***	- 1.306* *	-1.114**	-1.463**	- 1.309* *	- 1.144* *	- 1.303* **	0.263* *		
cut1	(0.451)	(0.150)	(0.258)	(0.247)	(0.335)	(0.283)	(0.253)	(0.173)	(0.049)		
Constant										- 4.979* **	- 5.566***
cut2										(0.305)	(0.435)
Constant										0.616* (0.279)	- 1.151*** (0.291)
Observatio ns	2338	2763	1842	4601	3328	4246	4587	3727	6702	8117	7437

	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)
	Material 1	Mental 1	Advice	Marital support 1	Material 2	Mental 2	Advice 2	Marital support 2	% neighb ors	Local help 1	Local help 2
Age	0.015 (0.015)	0.011 (0.007)	0.018 (0.014)	0.012 (0.008)	0.029* (0.012)	0.020** (0.007)	0.020* ** (0.006)	0.024* ** (0.005)	-0.001 (0.002)	0.000 (0.004)	-0.001 (0.004)
Age squared	-0.000 (0.000)	-0.000 (0.000)	-0.000 (0.000)	-0.000 (0.000)	-0.000+ (0.000)	-0.000* (0.000)	-0.000* (0.000)	- 0.000* * (0.000)	0.000* (0.000)	-0.000 (0.000)	-0.000 (0.000)
Male	-0.056 (0.044)	0.013 (0.040)	0.217* * (0.078)	-0.004 (0.026)	-0.061 (0.041)	-0.018 (0.038)	-0.024 (0.016)	-0.060 (0.047)	-0.037* (0.016)	0.052* * (0.020)	0.039* (0.019)
Widowed (default is married)	-0.179+ (0.108)	-0.121 (0.091)	-0.128 (0.134)	-0.019 (0.055)	0.190 (0.137)	0.054 (0.046)	0.208* * (0.067)	-0.124 (0.086)	0.031+ (0.016)	0.065 (0.043)	-0.009 (0.044)
Divorced	0.184* (0.076)	-0.044 (0.036)	-0.091 (0.121)	0.027 (0.070)	0.107 (0.154)	0.058 (0.087)	0.130 (0.121)	-0.025 (0.041)	-0.031 (0.023)	0.071 (0.044)	-0.026 (0.046)
Separated	- 0.250*** (0.066)	-0.001 (0.092)	-0.150+ (0.083)	-0.066 (0.122)	0.024 (0.060)	0.191* (0.076)	0.052 (0.070)	0.025 (0.148)	-0.019 (0.016)	0.064 (0.060)	-0.019 (0.064)
Never married	0.320*** (0.069)	0.048+ (0.028)	0.272* (0.123)	0.064 (0.049)	0.212** (0.073)	0.037 (0.058)	0.135 (0.111)	0.025 (0.064)	-0.015 (0.020)	0.075* (0.029)	-0.042 (0.029)
Semirural (default is urban)	-0.147 (0.092)	-0.002 (0.088)	0.086 (0.078)	-0.105 (0.069)	-0.160 (0.098)	0.114** (0.043)	-0.082 (0.073)	-0.052 (0.051)	0.015* * (0.005)	-0.015 (0.023)	-0.002 (0.023)
Rural	-0.089 (0.096)	-0.062 (0.106)	0.079 (0.111)	-0.031 (0.081)	-0.134 (0.107)	-0.028 (0.066)	-0.029 (0.049)	-0.140* (0.065)	0.054* ** (0.013)	0.005 (0.025)	-0.002 (0.025)
Religious attendance	-0.007 (0.008)	-0.015 (0.017)	-0.011 (0.027)	-0.026** (0.008)	-0.027 (0.021)	-0.017 (0.012)	0.026* ** (0.006)	-0.013 (0.019)	0.005* (0.002)	0.010+ (0.005)	0.006 (0.005)
Network size	0.006 (0.006)	0.003 (0.002)	0.002 (0.003)	0.004 (0.003)	0.002** (0.001)	0.002 (0.002)	-0.001 (0.003)	0.006* (0.003)	- 0.002* ** (0.000)	0.001 (0.002)	0.001 (0.001)

Table 13: Results for multilevel regression analyses on distances to alters for various forms of support and local social involvement, modeling countries as random effects. Note: Each model name has been simplified so as to save space ("Material 1": Distance to primary alter for material support)

Education level	0.167*** (0.043)	0.084** (0.031)	0.122* (0.062)	0.120*** (0.034)	0.143*** (0.039)	0.112** (0.041)	0.116* * (0.037)	0.100* ** (0.029)	0.030* ** (0.006)	0.026* * (0.010)	-0.013 (0.009)
Family income in PPP- adjusted 1986 k\$	-0.006 (0.006)	-0.010* (0.004)	0.006 (0.008)	0.007** (0.002)	0.004 (0.004)	0.003 (0.005)	-0.001 (0.002)	-0.013+ (0.007)	-0.001 (0.001)	0.006* * (0.002)	-0.000 (0.002)
Family income squared	0.000* (0.000)	0.000*** (0.000)	0.000 (0.000)	-0.000 (0.000)	-0.000 (0.000)	-0.000 (0.000)	0.000 (0.000)	0.000* * (0.000)	0.000 (0.000)	0.000+ (0.000)	-0.000 (0.000)
Constant	1.433*** (0.415)	- 1.180*** (0.199)	1.582* ** (0.308)	1.334*** (0.243)	1.568*** (0.352)	1.476** * (0.231)	1.345* ** (0.199)	- 1.339* ** (0.181)	0.250* ** (0.057)	0.371* ** (0.091)	0.559*** (0.090)
Random intercept variance	1.607*** (0.256)	1.653*** (0.340)	1.780* ** (0.342)	2.152*** (0.318)	1.872*** (0.381)	2.324** * (0.372)	1.794* ** (0.202)	1.642* ** (0.326)	3.495* ** (0.263)	-12.988 (7624.9 24)	-18.080 (932145. 621)
Level 1 constant	0.133* (0.066)	-0.016 (0.080)	0.068 (0.076)	0.041 (0.065)	0.120* (0.054)	0.001 (0.055)	0.068 (0.056)	0.089 (0.058)	1.243* ** (0.058)		
Observatio ns	2338	2763	1842	4601	3328	4246	4587	3727	6702	8117	7437



Figure 1 : Marginal effects for education by country on distance to primary providers of 4 types of social support (grey areas are 95% confidence intervals)

Figure 2 : Marginal effects for education by country on distance to secondary providers of 4 types of social support (grey areas are 95% confidence intervals)









Figure 4 : Marginal effects for education by country on the probability of relying on two different individuals for small, local assistance (receiving help around the house and help when sick) (grey areas are 95% confidence intervals)