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Cross-National Differences in Older Adult Loneliness

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ABSTRACT. Loneliness concerns the subjective evaluation that the number of relationships is smaller than the individual considers desirable or that the intimacy that the individual wishes for has not been realized. The aim of this study was to assess variations in levels of late-life loneliness and its determinants across Europe. Data came from the SHARE surveys, Wave 2 (Börsch-Supan et al., 2008), encompassing adults aged 50 years and over in Austria, Belgium, the Czech Republic, Denmark, France, Germany, Greece, Ireland, Italy, the Netherlands, Poland, Spain, Sweden, and Switzerland ($N = 12,248$). Loneliness was measured by a single item derived from the CES-D (depression) scale. Using logistic models, the present authors tested several types of explanations for country differences: differences in demographic characteristics, wealth and health, and social networks. Older adults in the southern and central European countries were generally lonelier than their peers in the northern and western European countries. In the southern and central European countries, loneliness was largely attributable to not being married, economic deprivation,

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and poor health. Frequent contacts with parents and adult children, social participation, and providing support to family members were important in preventing and alleviating loneliness in almost all countries. To combat loneliness among older adults, the findings suggest both (a) generic approaches aimed at improving social embeddedness and (b) country-tailored approaches aimed at improving health and wealth.

Keywords: Europe, health, loneliness, social network, wealth

SOCIAL INTEGRATION and feeling socially well embedded in the context of one's community and family are important determinants of quality of life in late adulthood. Policy makers assembled in the United Nations International Conference on Population and Development, Cairo, September 1994, formulated their objectives in this respect as "To enhance, through appropriate mechanisms, the self-reliance of elderly people, and to create conditions that promote quality of life and enable them to work and live independently in their own communities as long as possible or as desired" (6.17, p. 39). An indication of the extent to which these objectives have been achieved is the absence of social integration in the form of loneliness. Loneliness is considered to be the outcome of the evaluation of the match between the quantity and quality of existing relationships and one's relationship desires (Peplau & Perlman, 1982).

Levels of loneliness have been found to differ across societies. A series of studies carried out by Rokach and associates has repeatedly shown that cultural heritage is significantly related to the manner in which people express and cope with loneliness experiences (e.g., Rokach, 2008; Rokach & Neto, 2005; Rokach, Orzeck, & Neto, 2004). Those researchers observed, for instance, that Croatians scored lower than Canadians on all loneliness subscales under study, a finding that possibly reflected increased interdependence on primary group members in Croatia in connection with the war and ensuing social and economic malaise (Rokach, Orzeck, Cripps, Lackovic-Grgin, & Penezic, 2001). In a study enquiring into perceived causes of loneliness, Canadian seniors were less likely to attribute loneliness to personal inadequacies than their Czech peers, possibly because the latter feel more doubtful about their personal abilities and coping resources, having lived most of their lives under communist rule (Rokach, 2007). Studies examining cross-national differences in loneliness in western European countries (e.g., Jylhä & Jokela, 1990; Sundström, Fransson, Malmberg, & Davey, 2009; Walker, 1993) have, without exception, observed a clear North-South gradient. This gradient, however, is in reverse order to the rates of institutionalization and solitary living, factors that are generally believed to contribute to loneliness. On average, older residents of northern European countries are less lonely than their peers in southern European countries.

As noted by Tesch-Römer and Von Kondratowitz (2006), current comparative aging research is characterized by little theorizing. We aim to contribute

to theoretical development by viewing the emergence of loneliness as an interplay of personal factors and environmental conditions and constraints (Rokach & Brock, 1997). In our view, it is important to explore the division and intersection of broad modes of state, regional, and community provisions underlying social integration. Although the intersections of modes differ between countries, it is the total organization of activities oriented towards social integration that is decisive for the specific loneliness situation in a country. These state, regional, and community provisions shape the conditions for individual older adults to participate in the community and to be involved in social activities with kin and nonkin network members and consequently lead to varying country-level outcomes in loneliness.

The goal of this study was to investigate older adult loneliness in a country-comparative perspective by not only measuring variations in the prevalence of loneliness between European countries but also identifying some of the determinants of these variations. We improve on the literature in two ways. **Contrary to the customary focus on North versus South, we include countries from four different regions: North, West, South, and Central Europe.** Rather than restricting ourselves to a short list of determinants, we include a wide **range of explanatory factors encompassing demographic, socioeconomic, and health indicators, in addition to characteristics of the social network.**

The investigation of loneliness in the European context is **important** now that several **societal trends potentially have a negative effect** on the social embeddedness of older women and men. First, most European countries are confronted with a sharp **increase in the proportion of older adults living alone.** Western and northern European countries are forerunners in this respect, but in more and more other countries, older adults, after widowhood or divorce, are deciding to continue living independently for as long as possible. While marriage can help maintain social well-being, **living alone is one of the main risk factors for loneliness** (De Jong Gierveld, Van Tilburg, & Dykstra, 2006; Wenger, Davies, Shahtahmasebi, & Scott, 1996). Waite and Lehrer (2003) view **marital support** as the key channel through which marriage **leads to mental and physical well-being and alleviation of loneliness.** Older adults living alone have to contact people outside the household for support and help. **Maintaining contact with network members living elsewhere requires more time, more initiative, and perseverance,** although faster methods of communication (telephone, electronic mail) and travel (car, air) have facilitated contact among network members who do not live close to each other (Ajrouch, Akiyama, & Antonucci, 2007). In this context, one needs to take into account that **widowhood is more frequently a woman's experience than a man's experience, suggesting gender differences in the risks of loneliness.**

Although partner relationships are important vehicles for instrumental and emotional support exchanges, with increasing age more help and care are needed, that is, people outside the nuclear household are expected to step in and provide additional support, regardless of whether it is informal help (from siblings and

children) or formal help. Nowadays, the question is raised if this additional support by family members will be available and will be sufficient to guarantee optimal social embeddedness of older women and men. **The integrative functioning of the family seems to be at risk as a consequence of the trends towards increasing rates of divorce and remarriage after marital break up**, in combination with the forming of complex new forms of stepfamilies.

These concerns are related to changes in attitudes as summarized in the ideas of the Second Demographic Transition (Van de Kaa, 1987). Cultural changes that have taken place in Europe since the 1960s have influenced the system of values and norms cherished by young and older adults: the past decades have seen a decline in normative control on behavioral patterns, enabling people to fulfill their personal wishes and preferences to a much greater extent than their peers were able to do in the past. Not only has the authority to exert normative control declined in recent decades, but the wish to exert such control has diminished as well (Liefbroer, 1999). **These changes are linked to processes such as secularization and individualization**, which affect the opportunities of individuals to decide how they wish to organize their lives.

In addition, **the level of social participation and social embeddedness is related to the health situation of older adults**. Those in good health, without ADL or IADL limitations, are better positioned to be in contact with family and nonfamily members of their social network. However, the **increase in life expectancy** in most European countries for both women and men, the **related increase in the number of years with disabilities**, and the death of peers at later age increase the risks for shrinking social networks and feelings of loneliness. Studies have repeatedly shown that older adults who are in poor health are most prone to loneliness (for reviews see De Jong Gierveld, Van Tilburg, & Dykstra, 2006; Pinquart & Sörensen, 2001; Victor, Scrambler, Bond, & Bowling, 2000).

Differences in socioeconomic position, and especially in old age income levels, as related to the availability and level of state and (obligatory) company pension schemes and to appropriate social welfare policies for those in need, form additional determinants of older adults' conditions to realize a certain quality of life and alleviate loneliness. Each of these determinants represents opportunities for or obstacles to rewarding social involvements (Hawkey et al., 2008). **More generous old age pension schemes, social security systems, and health care systems are mechanisms helpful for enhancing self-reliance of older people and for guaranteeing appropriate conditions for optimal health, quality of life, social integration, and alleviation of loneliness.**

The aforementioned processes of increasing life expectancy, changing characteristics of the family structure, and trends in familial support systems differ between European countries, both in pace and in impact. Moreover, the socioeconomic characteristics of countries and the ins and outs of the health care and social security systems differentially affect older adults. In certain aspects, the northern European countries can be viewed as forerunners (acceptance and realization of divorce and the forming of nonmarriage living arrangements), whereas

in other aspects the southern European countries are taking the lead (postponement of family formation and leaving the parental home). It is reasonable to expect that differences in the composition and functioning of the familial system (exchange of instrumental support, e.g., as related to coresident living arrangements), the connected cultural values and norms, and the socioeconomic characteristics of countries continue to differently affect the social embeddedness in varying countries of Europe. Hence, in investigating country differences in loneliness, we looked at the following broad groups of explanatory factors (Dykstra, 2009): differences in the population composition, differences in health and wealth, and differences related to the size, composition, and functioning of older adults' social networks. Data came from the Survey of Health and Retirement in Europe (SHARE), Wave 2. Using logistic models, we tested several subsets of factors related to country differences in older adults' loneliness. Fourteen countries from North, West, South, and Central Europe were included in the analyses.

Background and Hypotheses

The concept of loneliness. Loneliness is a subjective and negative experience, the outcome of the evaluation of the match between the quantity and quality of existing relationships and one's relationship desires or standards. Some people with a restricted social network feel lonely, whereas others do not. Loneliness needs to be differentiated from social isolation. The latter is an objective situation and refers to the absence of relationships with other people (Cornwell & Waite, 2009; De Jong Gierveld, Van Tilburg, & Dykstra 2006).

Country-level variations in loneliness: Refraining from simple typologies. An often-heard assumption is that countries in Mediterranean Europe, where care and support arrangements are embedded more or less exclusively within the family and frequently materialized via co-residence arrangements, are better equipped to guarantee social integration of older adults than countries in Northern Europe, characterized by residential autonomy of older adults (Manzi, Vignoles, Regalia, & Scabini, 2006; Reher, 1998). In investigating country-level differences in loneliness, we nevertheless refrain from ordering the countries into a priori simple subsets such as the dichotomy individualistic country versus family-oriented country. Such a dichotomy suggests homogeneity among countries belonging to a particular subset. Recent research has indicated that a simple typology does not do justice to the complexity of regional- and country-level family patterns (Attias-Donfut, Ogg, & Wolff, 2005; Dykstra & Fokkema, 2011; Glaser, Tomassini, & Grundy, 2004; Hank, 2007).

Country-level differences in the demographic composition of populations. In investigating country-level differences in loneliness, this study takes into consideration the demographic circumstances of countries, more specifically the age, gender, and marital status composition. Among older adults, loneliness increases with age, especially after the age of 75 years (Dykstra, 2009; Jylhä, 2004). In addition, loneliness is more common among older women than among

older men. However, what makes the oldest old and older women more socially vulnerable is not age and gender per se. Higher levels of loneliness among these population groups are generally linked to—besides deteriorating health, low income and shrinking networks—widowhood. Loneliness research has repeatedly demonstrated the protective role of marriage (e.g., De Jong Gierveld, Broese van Groenou, Hoogendoorn, & Smit, 2009; Dykstra & De Jong Gierveld, 2004; Pinquart, 2003; Stevens & Westerhof, 2006), simultaneously underlining the increased risks of loneliness for divorced and widowed men and women (Dykstra & Fokkema, 2007; Guiaux, Van Tilburg, & Broese van Groenou, 2007).

Country-level differences in marriage among older adults are to a certain extent related to differences between men and women in life expectancy and the related sex ratio in older age. Comparing female and male life expectancies of the European countries under investigation (Table 1), the female life expectancy at age 65 years varies between two years higher than that for men in Greece to more than 4 years higher in France and Poland. Per 100 women aged 60 years and over, Table 1 shows the lowest ratio of men in Poland (66) and the Czech Republic (73) as compared to Denmark, Sweden, the Netherlands, and Ireland with a ratio of more than 80. The proportions of married females aged 60 years and over are lowest in Austria (41.3) and especially Poland (40.6). The resulting discrepancies between countries as presented in Table 1—for example, Poland with low proportions of married older females, a low sex ratio, and a high female–male discrepancy in life expectancy at age 65 years—need careful attention.

In sum, having a higher age, being female, and being unmarried are main determinants of older adults' loneliness. Given the high discrepancy in life expectancy of women and men, the low share of men aged 60 years plus as compared to women aged 60 years plus, and the rather low share of married older female adults in Poland, we expect that this country has a relatively high proportion of lonely older adults (H1).

Country-level differences in wealth. Recent research has shown that low socioeconomic status (captured by, for instance, level of education and income) is associated with a high level of loneliness (Hawkley et al., 2008). Quite often these more distal predictors are linked to proximal factors such as having greater difficulties in maintaining optimal get-togethers with network members, a small number of friends, or relationships of poor quality. Research by Scharf and Smith (2004) and by O'Rand (2001) has shown that people living in economically deprived regions and confronted with income levels that restrict making ends meet are prone to experiencing social exclusion and more intense loneliness.

Countries within Europe differ significantly as far as socioeconomic indicators are concerned. Table 1 shows that especially Poland and the Czech Republic are characterized by lower Gross Domestic Product (GDP) levels compared to other countries. Low-GDP countries face difficulties in guaranteeing basic social protection and an old age pension above the local poverty level and consequently have to refrain from supporting older adults in independent living and maintaining

TABLE 1. Country-Level Indicators: Countries in Alphabetical Order

Variable	Country													
	Austria (<i>N</i> = 517)	Belgium (<i>N</i> = 1055)	Czech Rep. (<i>N</i> = 1117)	Denmark (<i>N</i> = 965)	France (<i>N</i> = 1090)	Germany (<i>N</i> = 920)	Greece (<i>N</i> = 1037)	Ireland (<i>N</i> = 382)	Italy (<i>N</i> = 987)	Netherlands (<i>N</i> = 930)	Poland (<i>N</i> = 975)	Spain (<i>N</i> = 744)	Sweden (<i>N</i> = 1018)	Switzerland (<i>N</i> = 511)
Female-male discrepancy in life expectancy at age 65 years ^a	3.3	3.7	3.4	2.9	4.4	3.4	2.1	3.1	3.8	3.6	4.2	3.9	3.2	3.5
Sex ratio per 100 women 60+ years ^b	75.3	77.7	72.7	83.5	76.3	77.4	82.2	85.7	76.1	83.4	66.4	77.9	83.8	79.4
% married females 60+ years ^c	41.3	48.8	44.6	48.8	46.7	49.1	52.4	46.6	49.2	51.7	40.6	48.6	45.6	49.0
GDP PPP in US ^a	33495	32049	20362	33214	29809	31378	24928	38596	28144	35105	13784	27377	32319	35733
Social protection expenditures as % of GDP ^a	28.0	28.2	18.5	29.4	29.5	28.6	23.9	16.9	25.4	26.0	19.2	20.4	30.9	27.1
Poverty rates at age 66–75 years ^d	7.6	10.7	1.3	3.8	9.9	9.7	22.2	14.6	14.6	1.5	4.0	14.8	4.6	10.4
Public health expenditures as % of GDP ^a	7.9	7.4	6.3	8.0	8.8	8.2	5.7	5.7	6.8	5.9	4.3	5.9	7.5	6.7
Female life expectancy at age 65 years ^a	20.2	20.2	17.8	19.0	22.0	20.1	19.2	19.7	21.3	20.0	18.5	21.1	20.6	21.6
Female healthy life expectancy at age 60 years (HALE) ^e	18.4	18.0	15.8	16.5	19.4	17.6	17.7	16.9	18.8	17.8	13.8	18.3	18.7	19.7

^aGenerations and Gender Surveys, Contextual Database; data 2005.^bUnited Nations (2010), World Ageing Report; data 2009.^cUnited Nations (2010), World Ageing Report; data vary between 1991 (Spain) and 2008 (Denmark and the Netherlands).^dMichael Förster & Marco Mira d'Ercolo (2005).^eGenerations and Gender Surveys, Contextual Database; data 2000.

a certain level of social integration. Besides Poland and the Czech Republic, Ireland is also characterized by a relatively low percentage of GDP expenditures on social protection. Looking at the income situation of Europe's older adults, poverty rates among the population aged 66–75 years are especially high in Greece, Spain, Italy, and Ireland.

Based on their less favorable social status, we expect relatively high proportions of lonely older adults in the central and southern European countries of Poland, the Czech Republic, Greece, Spain, and Italy (H2).

Country-level differences in health. Research has shown a strong negative interrelationship between the health condition of older adults and loneliness (Halleröd, 2009; Havens & Hall, 2001; Kramer, Kapteyn, Kuik, & Deeg, 2002; Mullins, Elston, & Gutkowski, 1996; Penninx et al., 1999; Savikko, Routasalo, Tilvis, Strandberg, & Pitkala, 2005; Steverink, Westerhof, Bode, & Dittman-Kohli, 2001; Wilson et al., 2007). Loneliness not only has adverse outcomes on physical and mental health because of a reluctance to engage in exercise behavior and see a doctor, or because of difficulties in remembering to take medications (Cacioppo et al., 2002; Ó Luanaigh & Lawlor, 2008; Pérodeau & du-Fort, 2000; Wilson et al., 2007). There is also empirical evidence that the causal relation runs in the opposite direction, that is, that deteriorating own or spousal health increases emotional and social loneliness of both partners (Korporaal, Broese van Groenou, & Van Tilburg, 2008).

Countries differ in the levels of public health expenditures and medical services made available for (frail) older adults as shown in Table 1, with Poland at one end of the continuum and France at the other, resulting in differences in mental and physical health conditions of older adults (Lehtinen, Sohlman, & Kovess-Masfety, 2005; Mackenbach et al., 2008). Table 1 also shows that female life expectancy at age 65 years and female healthy life expectancy at age 60 years lag in Poland and the Czech Republic.

In view of the above findings, we expect that loneliness is more prevalent amongst older adults in the central European countries Poland and the Czech Republic and that the situation is partly due to a higher risk of poor health conditions (H3).

Country-level differences in the size and composition of social networks. Research has shown that the size and composition of the family network, in particular the bonds with children, are strongly associated with the likelihood of loneliness among older adults (De Jong Gierveld & Dykstra, 2008; Kaufman & Uhlenberg, 1998; Kitson & Morgan, 1990; Pinquart, 2003). However, the mechanisms that connect the family network to loneliness differ by the cultural contexts of the countries (Van Tilburg & Dykstra, 2008). According to Jylhä and Jokela (1990) older adults in Scandinavian countries have fewer expectations about community and frequent and close contacts with family and friends than do older adults in Mediterranean countries. In more collectivist cultures, expectations of communality are likely to be higher than in a more individualistic type of culture (Johnson

& Mullins, 1987). Similarly, contacts with friends and participation in volunteer work and clubs are lower in collectivistic societies than in individualistic societies (Pilusuk & Minkler, 1980; Väänänen, Buunk, Kivimäki, Pentti, & Vahtera, 2005; Van Tilburg, De Jong Gierveld, Lecchini, & Marsiglia, 1998; Wagner, Schütze, & Lang, 1999). For this reason, differences in the size and composition of kin and nonkin networks will be taken into account in investigating varying patterns of loneliness of older adults across European countries. Given the absence of country-level information about the size and composition of social networks, we refrain from formulating specific hypotheses for this field of research. We will investigate the interrelationships from an exploratory perspective.

Country-level differences in the functioning of social networks. Exchanges of support within the network of social relationships are generally considered to be the building stones of social integration. However, countries differ in the value assigned to the type and frequency of support exchanges. In countries where the independence of aging parents and adult children is valued and financially feasible, such as in Sweden and Denmark, receiving instrumental informal support is culturally associated with greater older adult loneliness. In these countries, the preferred life-style is “intimacy at a distance” (Rosenmayr & Köckeis, 1963) with frequent get-togethers between adult children and their parents and exchanges of emotional support. In other societies such as Greece, where familial intergenerational bonds are close and are the traditional institutional arrangement for exchanges of support and help, instrumental support is consistent with normative ideas about family responsibilities and family cohesiveness and contributes to feelings of social integration (Adams, Anderson, & Adonu, 2004; see also Höllinger & Haller, 1990). Again we refrain from formulating specific hypotheses and consider country differences in the type and frequency of support exchanges from an exploratory perspective.

Method

Data Source

To test the hypotheses, we used data from the second wave of the Survey of Health, Ageing and Retirement in Europe (SHARE), which was collected in 2006–2007 in 14 European countries: Austria, Belgium, the Czech Republic, Denmark, France, Germany, Greece, Ireland, Italy, the Netherlands, Poland, Spain, Sweden, and Switzerland (for details see Börsch-Supan & Jürges, 2005; Börsch-Supan et al., 2008). This survey has longitudinal data among the noninstitutionalized population aged 50 years and over, including extensive information on living conditions, health, financial situation, social embeddedness, support exchanges, and well-being. Face-to-face, computer-assisted personal interviews were conducted, supplemented by a self-completion paper and pencil questionnaire. We decided to use the second wave of SHARE because of the wider country coverage compared to the first wave (including two new EU member states—the

Czech Republic and Poland—as well as Ireland) and, more importantly, because of the inclusion of the loneliness question in the interview rather than in the self-completion section (which would result in a smaller sample) and the incorrect Dutch translation of the loneliness question in Wave 1; in the Dutch version, loneliness was translated as being alone. After excluding those with missing data on key variables, our pooled multinational sample contains 12,248 individuals.

Measurements

Loneliness. The dependent variable, was measured by a direct, single item derived from the CES-D (depression) scale. Respondents were asked whether or not (0 = no, 1 = yes) they felt lonely much of the time during the past 1 week.

Demographic characteristics. Three variables measured demographic characteristics: (a) *age* (in years; range: 50–104 years), (b) *gender* (coded 0 = male, and 1 = female), and (c) *marital status*, distinguishing the categories of married (reference group), widowed, divorced, and never married individuals.

Socioeconomic status. Three variables refer to the respondent's socioeconomic status. The first is level of *education*, reflecting the highest level the respondents had completed by obtaining a qualification or diploma, coded into the 1997 International Standard Classification of Education (ISCED-97) with three levels: low (preprimary education, primary education or first stage of basic education, and lower secondary or second stage of basic education), intermediate ([upper] secondary education, and postsecondary nontertiary education), and high (first stage of tertiary education and second stage of tertiary education). The second is being currently *employed* (0 = no, 1 = yes). The third is *perceived difficulties with current income*, running from 0 = comfortable (reference group) to 3 = great difficulties. In case of “level of education” and “perceived difficulties with current income,” a separate category for missing cases was created as both measures had more missing data than other variables.

Health. Numerous indicators for respondent's health status were included: perceived health, functional limitations, and problems with seeing or hearing. *Perceived health*, *seeing*, and *hearing* were measured by asking the respondents to rate their own health, seeing (with the use of glasses or contact lenses if usually wearing them) and hearing (with the use of hearing aids if usually wearing them), respectively, on a 5-point scale ranging from excellent to poor. Functional limitations were measured using a 6-item list of Activities of Daily Living (ADLs) and a 7-item list of Instrumental Activities of Daily Living (IADLs), respectively. The respondents were asked whether or not they had any difficulty in doing each of these activities. The variables *ADLs* and *IADLs* were dichotomized: difficulties with none (= 0) versus one or more (I)ADLs (= 1).

Social embeddedness. With regard to social embeddedness, we constructed three variables. The variable *children* pertained to whether the respondent had children and if so, how often they had contact, either in person, by telephone, or by mail contact, with at least one of them, distinguishing four categories ranging

from 1 = almost daily contact to 4 = less than weekly contact with one or more children, with childless respondents as the reference group. The same construction was used for the variable *parents*, with a further breakdown of the fourth category along parent's health (good versus poor health). *Social participation* was measured as a count of four activities in which the respondent could participate in the last month.

Support exchange. With regard to support exchange, we constructed the following four variables. The first is *regular help with personal care given inside the household* (0 = no, 1 = yes), that is, whether the respondent had given personal care (e.g., dressing, bathing or showering, eating, getting in or out of bed, using the toilet) to one or more household members. The second is *informal help given outside the household*, based on the question of whether the respondent had given practical household help (e.g., with home repairs, gardening, transportation, shopping, household chores) and/or help with paperwork (e.g., filling out forms, settling financial or legal matters) to someone outside the household and if so, to whom, distinguishing the following categories: to at least one family member, only to one or more nonfamily members, and none (reference group). The third is *informal help received*, that is, whether the respondent had received practical household help and/or help with paperwork from (a) at least one family member or (b) one or more nonfamily members outside the household, with (c) none as reference group. The fourth is *looking after grandchildren*: how often the respondent had looked after the grandchildren from outside the household in the last 12 months, ranging from 1 = daily to 4 = never, with "no grandchildren" as the reference group.

Results

Descriptives

Table 2 shows descriptive characteristics per country. Mean age per country differs between 64.0 years (the Netherlands) and 67.7 years (Spain), and the percentage that is female varies between 52.5% (Sweden) and 59.3% (France). The proportions of married older respondents vary between countries: high levels of married respondents in the Netherlands, Italy, Germany, Poland, Sweden, and Spain; high levels of widowhood in Austria and Greece; and high levels of divorce in Denmark, the Czech Republic, and Switzerland. Experiencing (some or great) difficulties in making ends meet is most frequent among respondents in Poland, Greece, Italy, the Czech Republic, and Italy. Table 2 shows that mean levels of subjective health and of ADL and IADL limitations are not evenly distributed across the countries under investigation: Poland, Italy, Spain, and the Czech Republic are among the countries with relatively high levels of health problems.

Social embeddedness differs between countries. Older childless people are more common in Ireland and Greece. Daily contacts with at least one of the children differ sharply, from 22% in Switzerland to more than 60% in Italy and

TABLE 2. Descriptive Statistics (Unweighted); Countries Ordered by Rate of Loneliness ($N = 12248$)

Variable	Country														Significance test
	Denmark (N = 965)	Switzerland (N = 511)	Netherlands (N = 930)	Germany (N = 920)	Sweden (N = 1018)	Austria (N = 517)	Ireland (N = 382)	Belgium (N = 1055)	Czech Rep. (N = 1117)	Greece (N = 1037)	Spain (N = 744)	France (N = 1090)	Poland (N = 975)	Italy (N = 987)	
Demographic															
Age (mean; 50–104)	64.2	65.2	64.0	64.8	66.4	66.8	64.6	65.2	64.4	67.0	67.7	65.4	64.7	67.1	F = 13.66***
Female	54.3	54.6	54.0	55.7	52.5	57.3	56.8	56.3	55.3	55.7	53.9	59.3	56.1	56.3	χ ² = 14.09
Marital status															χ ² = 394.66***
Married	70.1	73.0	78.8	77.9	76.5	59.8	72.3	74.5	68.1	67.5	75.4	67.5	76.8	78.7	
Widowed	13.2	11.9	11.5	11.6	10.9	24.4	17.0	15.3	18.7	21.8	15.9	17.7	17.2	13.9	
Divorced	10.7	10.0	5.5	5.7	8.2	7.7	2.6	6.7	10.7	4.1	2.2	8.3	2.6	1.4	
Never married	6.0	5.1	4.2	4.8	4.4	8.1	8.1	3.5	2.5	6.6	6.9	6.5	3.4	6.0	
Socioeconomic															
Level of education															χ ² = 2365.89***
Low	23.2	32.3	52.5	15.5	51.9	30.0	40.3	48.4	57.2	63.5	84.9	49.0	50.0	77.9	
Medium	43.0	57.1	23.0	59.1	26.4	49.7	17.3	24.8	32.7	21.4	6.9	30.1	41.5	18.2	
High	33.0	9.2	23.2	24.9	20.2	19.9	41.6	25.6	9.0	10.3	7.1	19.4	7.4	3.7	
Missing	0.8	1.4	1.3	0.5	1.5	0.4	0.8	1.2	1.1	4.8	1.1	1.5	1.1	0.2	
Paid job	39.5	38.4	30.2	28.0	35.7	14.5	32.2	22.1	27.6	24.0	15.6	25.0	13.2	11.9	χ ² = 479.86***
Perceived income															χ ² = 2307.52***
Comfortable	36.2	36.5	32.4	20.0	35.1	22.9	22.5	27.2	6.2	5.7	6.5	18.9	2.8	4.0	
Fair easily	23.6	23.7	29.0	28.8	28.5	36.8	29.1	24.0	23.4	14.3	18.8	28.8	13.9	21.4	
Some difficulties	7.3	10.4	7.5	14.1	8.5	13.2	17.0	15.7	30.3	31.8	25.4	18.8	33.6	27.3	
Great difficulties	1.3	2.2	2.8	3.7	2.9	5.0	7.3	4.5	9.0	18.4	12.1	7.4	19.5	13.3	
Missing	31.6	27.2	29.1	33.4	25.0	22.1	24.1	28.6	31.1	29.8	37.2	26.1	30.2	34.0	
Health															
Subjective health															χ ² = 1919.57***
Excellent	20.2	14.9	11.7	5.8	17.8	8.1	21.5	8.6	2.9	6.4	2.8	6.3	1.0	6.5	
Very good	32.1	29.5	14.1	16.1	21.7	19.1	29.8	20.2	16.2	26.0	7.1	13.6	5.3	11.3	
Good	24.2	37.6	44.8	42.2	30.5	38.5	30.4	43.0	39.2	38.3	41.3	43.5	29.6	31.7	
Fair	17.9	14.9	25.2	27.2	23.3	25.7	13.6	22.3	29.7	23.7	34.5	26.5	29.5	35.1	
Poor	5.5	3.1	4.2	8.8	6.8	8.5	4.7	5.9	12.0	5.6	14.2	10.1	34.5	15.4	
ADL (1 or more limitations)	7.4	4.9	5.9	8.8	8.2	11.8	11.5	10.5	8.8	7.8	12.4	10.2	24.7	11.9	χ ² = 287.01***
IADL (1 or more limitations)	12.3	8.4	13.0	11.2	12.1	19.9	15.7	16.7	16.7	19.2	19.8	16.0	28.0	19.5	χ ² = 193.84***

TABLE 2. Descriptive Statistics (Unweighted); Countries Ordered by Rate of Loneliness ($N = 12248$) (Continued)

Variable	Country														Significance test
	Denmark (N = 965)	Switzerland (N = 511)	Netherlands (N = 930)	Germany (N = 920)	Sweden (N = 1018)	Austria (N = 517)	Ireland (N = 382)	Belgium (N = 1055)	Czech Rep. (N = 1117)	Greece (N = 1037)	Spain (N = 744)	France (N = 1090)	Poland (N = 975)	Italy (N = 987)	
≥1 parents less than weekly contact, parents good health	2.6	3.5	2.2	2.3	1.9	0.4	0.3	1.9	2.2	1.4	0.5	2.9	1.2	0.5	F = 81.29***
Social participation (mean; 0–4)	0.8	0.7	0.7	0.5	0.6	0.4	0.8	0.6	0.2	0.4	0.2	0.5	0.1	0.2	
Support exchange															
Regular help with personal care given to hhmember(s)	4.9	2.7	3.2	4.9	3.3	5.2	7.1	4.9	5.5	5.9	8.7	4.6	9.1	7.9	χ ² = 81.73***
Informal help given to:															
Family members	38.9	25.8	37.3	27.0	37.1	22.4	27.2	36.5	25.4	15.5	9.3	23.2	13.3	20.2	
Nonfamily members	7.4	5.1	6.9	5.0	5.9	2.7	2.4	5.7	2.4	1.0	0.4	2.0	2.1	2.0	χ ² = 245.97*** χ ² = 172.50***
Informal help received by:															
Family members	22.2	10.8	15.5	21.2	16.8	17.8	14.4	17.6	33.7	20.3	14.1	11.7	19.4	12.9	
Nonfamily members	4.2	2.2	3.2	3.0	3.4	3.1	1.0	1.9	4.1	0.9	0.7	1.1	2.3	1.1	χ ² = 283.73*** χ ² = 78.25***
Looking after grandchildren															
No grandchildren	27.4	42.9	37.0	37.4	30.1	34.0	41.0	29.6	17.6	38.2	32.5	34.2	14.6	30.1	
Daily	1.5	1.2	1.5	3.8	1.3	6.0	7.9	7.8	5.0	14.3	8.7	3.5	17.2	16.2	χ ² = 1517.23***
At least weekly	9.2	13.9	18.8	11.3	10.3	8.9	13.1	19.1	11.4	8.3	7.3	10.6	9.0	9.1	
Less than weekly	30.3	12.5	17.1	12.6	26.4	12.2	17.3	15.8	15.7	7.4	7.5	18.8	10.9	6.5	
Never	31.6	29.5	25.6	34.9	31.9	38.9	20.7	27.7	50.3	31.8	44.0	32.9	48.3	38.1	χ ² = 287.17***
Feelings of loneliness	6.3	8.0	8.3	8.5	10.1	11.2	11.8	13.4	15.6	15.6	15.9	17.8	20.0	25.4	

*** $p < .001$.
hhmember(s) = household member(s).

Greece. The majority of seniors in all countries under investigation are in weekly or almost weekly contact with adult children. The majority no longer having living parents, with the highest percentage observed in Spain (84%), Austria (82%), and Ireland (81%), and for those who have one or two parents alive, frequencies of contact are especially high in Italy and Greece. Social participation in clubs, volunteer organizations, and so on is highest in Denmark, Ireland, Switzerland, and the Netherlands. Rates of help with personal care given to household members are higher in southern European populations than in most of the northern and western European countries. Providing informal help to noncoresidential family members is highest in northern and western European countries, reflecting differences in living arrangements.

The final row of Table 2 shows that the prevalence of loneliness runs from 6.3% for Denmark to 25.4% for Italy. Countries with the highest reports of loneliness are the Czech Republic, Greece, Spain, France, Poland, and Italy, indicating that countries in the Mediterranean region and in Central Europe and France have the highest prevalences of loneliness.

Multivariate Analysis

Table 3 shows the results of multivariate logistic regression analysis, providing insight into the sources of country-level differences in loneliness. Model 1 provides the basic differences in loneliness between countries, with Denmark, Switzerland, the Netherlands, Germany, and Sweden located significantly on the lower side of the loneliness continuum, and the Czech Republic, Greece, Spain, France, Poland, and Italy on the other side.

As expected, Model 2 shows that a higher incidence of loneliness at the country level is attributable to having an older population, a population with a higher proportion of women, and a population with a higher proportion of never and formerly married older adults. The prevalences of loneliness in the Czech Republic and Greece are no longer significantly higher than the 14-country mean after control for age, sex, and marital status composition. Contrary to H1, however, the relatively high rate of loneliness in Poland is not attributable to the demographic make-up of the country.

In Model 3, differences in socioeconomic status are taken into consideration. In line with previous studies, higher levels of education are negatively related, and income levels that are evaluated as difficult are positively related, to the country level of loneliness. Socioeconomic factors account for the higher level of loneliness in the central European countries Poland and the Czech Republic and in the southern European countries Greece, Spain, and Italy, offering support for H2. While rates of loneliness in Poland and Italy are still above the 14-country mean after control for the less favorable socioeconomic status of their older adult population, the levels of loneliness in the Czech Republic, Greece, and Spain no longer differ from the 14-country mean.

TABLE 3. Hierarchical Logistic Regression on Loneliness ($N = 12248$)

Variable	Model						
	1	2	3	4	5	6	7
Country (compared to grand mean):							
Denmark	0.47***	0.43***	0.66**	0.61***	0.51***	0.48***	0.64**
Switzerland	0.60**	0.59**	0.77	0.82	0.62**	0.61**	0.83
Netherlands	0.63***	0.70**	0.74*	0.67***	0.68**	0.68**	0.81
Germany	0.64***	0.70**	0.77*	0.63***	0.63***	0.61***	0.66**
Sweden	0.78*	0.84	0.93	0.94	0.83	0.83	1.12
Austria	0.88	0.64**	0.89	0.86	0.81	0.83	0.64**
Ireland	0.92	0.90	0.99	1.15	0.98	1.00	1.20
Belgium	1.07	1.10	1.14	1.10	1.10	1.17	1.23*
Czech Republic	1.28**	1.18	1.13	1.16	1.22*	1.10	0.95
Greece	1.28**	1.12	0.94	1.36***	1.29**	1.21*	0.92
Spain	1.31**	1.38**	1.04	0.98	1.17	1.21	1.00
France	1.50***	1.39***	1.48**	1.48***	1.49***	1.56***	1.35**
Poland	1.73***	1.99***	1.24*	1.01	1.60***	1.66***	0.99
Italy	2.36***	2.98***	1.85***	1.96***	2.30***	2.47***	2.48***
Demographic							
Age		1.01**					0.98***
Female		1.35***					1.28***
Marital status (ref. married):							
Widowed		6.36***					5.89***
Divorced		4.73***					3.81***
Never married		4.05**					2.49***

Socioeconomic	
Level of education (ref. low):	
Medium	0.81**
High	0.69***
Missing	1.17
Paid job	0.57***
Perceived income (ref. comfortable):	
Fair easily	1.42***
Some difficulties	2.09***
Great difficulties	3.91***
Missing	0.72**
Health	
Subjective health (excellent to poor)	1.50***
ADL (1 or more limitations)	1.18
IADL (1 or more limitations)	1.62***
Seeing (excellent to poor)	1.18***
Hearing (excellent to poor)	1.02
Social embeddedness	
Children (ref. childless)	
≥ 1 children almost daily contact	0.48***
≥ 1 children more than weekly contact	0.53***
≥ 1 children almost weekly contact	0.59***
≥ 1 children less than weekly contact	0.71**
	0.56***
	0.65**
	0.70*
	0.70*

(Continued on next page)

TABLE 3. Hierarchical Logistic Regression on Loneliness ($N = 12248$) (Continued)

Variable	Model						
	1	2	3	4	5	6	7
Parents (ref. both parents died):							
≥ 1 parents almost daily contact					0.63**		0.96
≥ 1 parents more than weekly contact					0.73**		1.17
≥ 1 parents almost weekly contact					0.49***		0.83
≥ 1 parents less than weekly contact, parents poor health					1.06		1.40*
≥ 1 parents less than weekly contact, parents good health					0.83		1.32
Social participation (low to high)					0.75***		0.87**
Support exchange							
Regular help with personal care given to hhmember(s)						0.97	1.35*
Informal help given to:							
Family members						0.64***	0.82*
Nonfamily members						1.07	1.21
Informal help received by:							
Family members						2.07***	1.21*
Nonfamily members						1.18	0.94
Looking after grandchildren (ref. no grandchildren)							
Daily						0.54***	0.61**
At least weekly						0.58***	0.78*
Less than weekly						0.60***	0.72**
Never						1.09	1.05

*** $p < .001$. ** $p < .01$. * $p < .05$.

hhmember(s) = household member(s).

Subjective health is known to be significantly associated with loneliness, as is also indicated in **Model 4: subjective health, IADL limitations, and problems in seeing are significantly related to loneliness**. Somewhat surprising and contrary to prior research, ADL limitations and hearing problems are not related to increased loneliness. Population differences in health account for country-level differences in loneliness. Congruent with H3, after we took health factors into consideration, loneliness levels in the Czech Republic and Poland did not significantly differ from the 14-country mean. Our findings show furthermore that a substantial part of the high level of loneliness among Spanish older adults is attributable to their relatively poor health.

More frequent get-togethers with children and parents and higher levels of social participation are inversely related to the prevalence of loneliness, as is shown in Model 5 of Table 3. With regard to children, the largest differences in the prevalence of loneliness are found between older adults with and without children; **the frequency of contact with their children seems to be of less importance**. With regard to parents, older adults with weekly or more contact with their parents are less likely to be lonely; there are no substantial differences between older adults whose parents died and those who meet their parents less than once a week, regardless of parents' health. The frequencies of get-togethers with children and parents, as well as the levels of involvement in the community via social participation do not differ between countries in affecting the level of loneliness, except for in Spain, where the rate of loneliness no longer deviates from the 14-country mean once social participation is controlled for.

Support exchanges within the family and with network members outside the family were entered into Model 6. Informal help given to family members and regularly providing grandparental care are inversely related to loneliness intensity. In contrast, receiving informal support from family members is positively associated with loneliness. Countries differ as to whether support exchanges mediate the onset and continuation of loneliness. In the Czech Republic and Spain, in particular, support exchanges within the family are strongly associated with loneliness. After taking into account the exchange of familial support, the levels of loneliness in the Czech Republic and Spain no longer differ from the 14-country mean. Apparently, high levels of loneliness at the country level are only partially attributable to differences in the functioning of the kin and nonkin social network. These indicators account for the relatively high levels of loneliness in the Czech Republic and Spain, but not for those in Greece, France, Poland, and Italy.

Model 7 of Table 3 provides an overview of the loneliness rate in the 14 European countries after we took into account country-level differences in demographic characteristics, wealth, health, social embeddedness, and support exchange. In contrast to the basic Model 1, with six countries characterized by a significantly higher level of loneliness, **in Model 7 only two countries have significantly higher levels of loneliness: Italy and France**. Whereas the higher loneliness levels in the

Czech Republic, Poland, Greece, and Spain can be attributed to varying combinations of factors such as a high age, a high proportion of women, a high proportion of unmarried individuals, unfavorable socioeconomic circumstances, poor health, and limited social networks, the relatively high loneliness levels in Italy and France cannot be fully accounted for.

Discussion

Previous studies on cross-national differences in older adult loneliness have reported a North–South divide in Europe (Jylhä & Jokela, 1990; Sundström, Fransson, Malmberg, & Davey, 2009; Walker, 1993). In the northern European countries, there is a lower prevalence of loneliness among the elderly than in the southern European countries. Our study largely confirmed this pattern, showing low rates of loneliness in Denmark, Switzerland, and the Netherlands and high rates of loneliness in Greece, Spain, and Italy. Contrary to expectations, France was among the high-loneliness countries. We extended the range of countries beyond the North–South divide. The second wave of SHARE offered the opportunity to include former communist countries. Results showed high prevalences of loneliness in the Czech Republic and Poland.

To understand cross-national differences in loneliness, we focused on differences in population composition, examining four sets of factors: demographic, socioeconomic, health, and social networks. Findings showed that the relatively high levels of loneliness in the Czech Republic and Greece were largely attributable to high proportions of unmarried men and women among the elderly. Marriage generally serves to protect against loneliness (Dykstra & De Jong Gierveld, 2004; Stack, 1998), and the Czech Republic and Greece have relatively many older adults who lack this protective bond. Limited socioeconomic means and poor health contributed to the relatively high levels of loneliness in Spain, Italy, the Czech Republic, and Poland. Social (support) network characteristics, though important determinants of loneliness at the individual level, did not strongly contribute to an explanation of cross-national differences in loneliness. At the individual level, those who maintained frequent contacts with their parents and adult children and those who provided support to noncoresident family members were less prone to loneliness. These findings are consistent with earlier research (De Jong Gierveld, Van Tilburg, & Dykstra, 2006; Wenger, Davies, Shahtahmasebi, & Scott, 1996). Regarding cross-national differences, findings indicated that the relatively high levels of loneliness in Spain were partially attributable to the relatively large group who no longer had living parents and the relatively large group providing personal care to a household member. The relatively high loneliness level in the Czech Republic was partially attributable to the relatively high proportion of older adults dependent on informal help from family members.

Whereas we were able to account for the relatively high rate of older adult loneliness in Greece, Spain, the Czech Republic, and Poland, we were unable to find an explanation for the relatively high prevalence of loneliness among French and Italian older adults. As regards France, the frequent reports of loneliness among their older residents might be a methodological artifact. Inspection of the French questionnaire revealed that respondents were asked whether they had felt alone (*senti(e) seul(e)*) much of the time during the past week, rather than whether they had felt lonely. We suggest that respondents are less hesitant to report having felt “alone” than to having felt “lonely.” As regards Italy, part of the explanation lies in economic deprivation and poor health in the older adult population. Demographic characteristics and social network characteristics failed to further contribute to the explanation. On the basis of our results, it is unclear why Italian older adults frequently report feeling lonely. Several possible interpretations warrant further investigation. It might be that Italian older adults have exceptionally high expectations of relationships that hardly can be fulfilled. They might be particularly vulnerable when they experience relationship losses. Italian society might attach great stigma to those who for whatever reason find themselves living alone. Unfortunately, our data set did not allow us to examine country variations in the loneliness effect of these issues. In future work, it will be important to consider people’s normative orientations and vulnerabilities in the cultural context of the country in which they live.

Our study reveals that different types of factors play a role in explaining the observed country differences in Europe. High levels of loneliness in Spain, Italy, the Czech Republic, and Poland are largely associated with financial and health problems among their older adult population. This is not a self-evident finding, given that loneliness is usually conceptualized as a problem of relationships: having fewer close ties than desired, and not achieving the desired level of intimacy in relationships. Our results underscore that wealth and health are conditions for engaging in satisfying personal relationships and thus for the prevention and alleviation of loneliness (Hawkley et al., 2008; Victor, Scrambler, Bowling, & Bond, 2005). In southern and eastern European countries, improving the socioeconomic position of older adults and their health status is likely to result in a drop in loneliness.

Dykstra (2009) identified three sets of factors as explanations of cross-national differences in loneliness: differences in population composition, country-level characteristics, and interactions between individual characteristics and country. The current study focused on differences in population composition only yet considered a wide range of characteristics of the older adult population: demographic make-up, socioeconomic circumstances, health differentials, and social embeddedness. It remains an open question whether country indicators of wealth such as GDP help to explain cross-national differences in loneliness over and above individual income levels. Likewise, it remains an open question whether a factor such as having a network with limited support potential contributes more strongly to

loneliness in certain countries rather than others. Previous work on cross-national differences in perceived family obligations suggests this might be the case. Norms of filial obligation tend to be strongly endorsed in the southeast of the European continent than in the northwest (Daatland, Herlofson, & Lima, 2011). It is conceivable that older adults are more prone to loneliness when support from adult children is not forthcoming in countries in southern and eastern Europe than in northern and western Europe. This issue merits further research.

Our study relied on a single item to measure loneliness. Over the years, the concept of loneliness has been measured in different ways, including direct single questions about feelings of loneliness (e.g., “I often felt lonely”), self-rating (“Do you categorize yourself in the group of ‘not lonely’, ‘moderate lonely’, ‘lonely’ or ‘severely lonely’?”), and multiple-item measures such as the UCLA loneliness scale and De Jong Gierveld loneliness scale (De Jong Gierveld & Kamphuis, 1985; Russell, Peplau, & Cutrona, 1980). There is a general preference for loneliness scales—which, unfortunately, were not available in the SHARE survey—as they do not use the words “lonely” or “loneliness” and cover different aspects of loneliness. Moreover, direct, single-item measures of loneliness seem to address the emotional dimension of loneliness (“loss”) more than social isolation (Dugan & Kivett, 1994). However, studies have shown that a single loneliness item is strongly related to the overall score obtained from a multi-item loneliness scale (De Jong Gierveld & Van Tilburg, 1999; DiTommaso & Spinner, 1993; Russell, Peplau, & Ferguson, 1978). We cannot rule out the possibility that the single direct question on loneliness influenced our findings. It is likely that nationals differ in the extent to which they feel they can openly express negative subjective experiences and personal concerns, with country differences in admitting loneliness as a result. There might also be country differences in the extent to which feelings of social isolation are conceived in terms of loneliness and relationship inadequacies rather than in terms of stress or general turmoil (Rokach, Orzeck, Cripps, Lackovic-Grgin, & Penezic, 2001). Clearly, additional comparative research on perceptions of the causes and manifestations of loneliness is needed.

There is an ongoing debate on whether loneliness is a single universal construct—an identical experience across countries—or an umbrella term that covers a variety of distinct distresses with some common features. Our findings do not help resolve this controversy. Although our findings point to correlates of the North/West–South/Central gradient in loneliness, the underlying mechanisms are not yet well identified. One example will serve to illustrate this point. To explain the contribution of the relatively large group of low socioeconomic-status individuals in the southern and central European countries to the high prevalence of adult loneliness in these countries, one may refer to the universal association between financial strain and psychological distress: regardless of the country in which they are living, older adults who lack economic resources are less able to participate in social activities, are less optimistic, and feel unable to control unwanted things that happen in their lives (Krause, Newsom, & Rook, 2008). Yet another mechanism

might be relevant, one that goes beyond the individual's struggle to cope with everyday life and refers to the shared cultural experiences of economic and social changes. This is especially likely to apply to older residents in the central European countries (Petrov, 2007). During socialism, it was customary that elderly parents used their savings to help improve the life chances of their adult children. After the transitions of 1989–1990, pension schemes became more modest, and many of the older adults now have to rely on the financial help of children, who themselves are confronted with very high levels of unemployment, decreasing income levels, and increasing housing expenditures. These shared modes of stress, identified by Ries (1997) as “litanies of suffering,” might result in a general reduction of trust and a widespread feeling of relative deprivation, leading to negative psychological outcomes (O’Rand, 2001), including loneliness.

Further cross-country comparative research is needed to disentangle the mechanisms underlying late-life loneliness across different environmental conditions and constraints. It is furthermore highly recommended to extend the number of central and eastern European countries under study. Apart from between-country comparisons, there is an urgent need for more loneliness research among different ethnic groups sharing the same environment. Most loneliness research has been conducted in the Western Hemisphere. The psychology of the individualistic cultures of the West, however, is likely to differ from the psychology of the collectivist cultures in other parts of the world (Triandis, 1996). Hence, there might be larger cross-ethnic differences than cross-country differences in loneliness. Due to the increasing number of older migrants from nonwestern countries in Europe, it would be particularly interesting to compare their loneliness experiences with those of their native peers.

AUTHOR NOTES

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