Article



The Structure and Determinants of **Intergenerational Support Exchange** Flows in an Eastern European Setting

Research on Aging 2020, Vol. 42(9-10) 262-271 © The Author(s) 2020 Article reuse guidelines: sagepub.com/iournals-permissions DOI: 10.1177/0164027520920026 journals.sagepub.com/home/roa

(\$)SAGE

Boróka Bó¹, Zachary Zimmer² and Codrina Rada³

Abstract

Although the provision, receipt, and bidirectionality of support exchanges are important for generational well-being, our understanding of them is lacking in Eastern Europe, a region undergoing swift population aging and social change. This study links intergenerational support exchanges to determinants in Romania, with a focus on proximity of adult children. Data are from the Romanian Aging and Migration Survey (N = 1,398). Analyses involve two stages. First, latent class analysis (LCA) is conducted to develop an intergenerational support typology. The second uses the typology as a dependent variable in multivariate equations predicting exchange determinants. LCA analysis yielded six propensity classes. Physical distance strongly predicts class membership. Having coresident adult children increases the likelihood of bidirectional exchange. Having an international migrant adult child reduces the chances, even with coresident adult children present. International migrant children lead to a higher probability of being a nonexchanger or receiving monetary support. There is a need for continued consideration of bidirectional exchange models in rapidly developing contexts.

Keywords

bidirectional support, intergenerational support, latent class analysis, migration, Romania

A trivial volume of research examines intergenerational support within an Eastern European context. Yet the topic is of consequence for multiple reasons. Eastern Europe continues to be markedly different from other parts of Europe in ways that influence support for older persons. For instance, Eastern Europe remains economically behind its Western neighbors, having a foot in both developing and developed worlds (Anon, 2017). Political forces in the aftermath to the collapse of the Soviet regime resulted in rapid rates of out-migration of the working aged to the Western parts of the continent. This threatens the types of support often provided by adult children (Ceobanu & Koropeckyj-Cox, 2013; Quashie & Zimmer, 2013; Zimmer et al., 2014). Further, the region is experiencing below-replacement fertility rates, which has its own implications for intergenerational support. In the region, an increasing proportion of those in older and oldest-old age groups is being accompanied by higher poverty rates among the elderly² (Bijak et al., 2008; Dykstra, 2018; Gauthier, 2007; Mönkediek & Bras, 2014; van Nimwegen & van der Erf, 2010). There are growing calls for research to address the social challenges that accompany the rapid population aging in Eastern Europe (Bijak et al., 2008; Bodogai & Cutler, 2015; Dykstra, 2018; Szołtysek, 2012; Zimmer et al., 2014). In contexts like this, it is imperative to examine both the direction of intergenerational support and their determinants, as they are consequential for the well-being of both generations (Deindl & Brandt, 2011; de Jong Gierveld

et al., 2012; Dykstra, 2018; Fingerman et al., 2009; Silverstein et al., 2012; Zimmer et al., 2000).

The Eastern European country of Romania presents a pertinent case study. Since the fall of communism in 1989, Romania has undergone significant changes in fertility and mortality, accompanied by high rates of both internal and external migration, quickly becoming one of the European Union's highest sending nations (Bijak et al., 2008). Support from adult children to older parents was affected by the economic downturn of the 1990s, as pension systems once in place for older adults in Romania deteriorated after that time (Zimmer et al., 2014). This led to 19% of the aged (65+) of Romania falling below the poverty line by 2011 (Craciun, 2012). In contexts like Romania, although adult children are instrumental in supporting their parents, aged parents also continue to provide informal support transfers to their adult children (Zimmer et al., 2014). Knowing this, it is important to examine intergenerational support exchanges in a comprehensive manner:

Corresponding Author:

Boróka Bó, University of California, 2232 Piedmont Ave, Berkeley, CA 94720,

Email: borokabo@berkeley.edu

¹ University of California, Berkeley, CA, USA

² Mount Saint Vincent University, Halifax, Nova Scotia, Canada

³ The University of Utah, Salt Lake City, UT, USA

incorporating determinants of parental support transfers directed toward adult migrant children, determinants of support directed toward the aged, along with the determinants of bidirectional exchanges of intergenerational support.

The current article focuses on support flows from the perspective of elderly parents in Romania. We used data from the 2011 Romanian Ageing and Migration Study (RAMS), specifically designed to explore the relationship between migration and intergenerational support transfers in Romania, a highly understudied context framed by deep and rapid socioeconomic, demographic, and institutional changes. This allows us to systematically link aging, migration, and intergenerational support exchanges. We consider three forms and three directions of intergenerational support exchanged between older adults and their adult children. Using a latent class approach, we begin by classifying the underlying structure of support. We are specifically interested in support determinants animating classes of intergenerational transfers, with a focus on residential location of adult children. Our aim is to assess characteristics associated with receiving, providing, and particularly, bidirectional support.

Theoretical Perspectives on Intergenerational Transfers

Theoretical perspectives of intergenerational solidarity and altruism are often used to explain the tendency toward reciprocity between parents and their adult children contexts characterized by economic vulnerabilities. In such settings, families must work as integrated units to assure successful survival of members (Aboderin, 2004; Becker, 1991; Cong & Silverstein, 2011; Frankenberg et al., 2002; Lee et al., 1994; Silverstein et al., 2012). These conceptual formulations of family intergenerational dynamics are especially relevant in developing economies, where adult children are typically seen as sources of support for aged parents (Beckett et al., 2002; Dupertuis et al., 2001; Dykstra, 2018).

These perspectives consider the degree to which retired parents are supported by adult children (Cong & Silverstein, 2011). Adult children increase support depending upon the needs of the parent, for instance, when parents are ill, widowed, in socioeconomic distress, or taking care of grandchildren left behind by migrant parents (Korinek et al., 2011; van Eeuwijk, 2006; Zimmer & Korinek, 2010). They also emphasize the consideration of other factors such as the gender, age, and socioeconomic status of the younger generation, along with their ability to provide support given cultural expectations, distance, and means (Dykstra, 2018; Quashie & Zimmer, 2013; Whyte & Qin, 2003). In sum, in developing countries, forms of support exchanged will be based on ability and need. In contrast, in developed societies such as Western Europe, support is more likely to flow from older adults to adult children (Fingerman et al., 2009) and is not necessarily dependent on well-being (Merz et al., 2009). Families in developed Europe serve as sources of opportunity: They provide for the perpetuation of social status (Spilerman, 2000), social capital (Putnam, 2000), and economic security across generations (Becker, 1991; Kohli & Künemund, 2003), as well as being institutions of social welfare (Kohli, 2004; Reher, 1998; Silverstein, 2006).

The idea that intergenerational support exchanges tend toward interdependence and balance—with both parents and adult children providing support—is recognized by both the economic and demographic literatures (Agree et al., 2002; Bernheim et al., 1985; Cox, 1990; Dykstra, 2018; Silverstein et al., 2002). Bidirectional transfers are rooted in principles of reciprocity (Silverstein et al., 2002), continuing even after children become adults (Grundy, 2005; Ikkink et al., 1999). Bidirectional exchanges aid the stability of the larger family unit while also positively contributing to the physical and mental health of older adults (Mancini & Blieszner, 1989). Research employing a family solidarity framework often notes that bidirectional exchanges are central, as support received is shaped by support provided (Dykstra, 2018; Grundy, 2005; Leopold & Raab, 2011; Silverstein et al., 2012). While this is the case, most extant research examines unidirectional support.³ We contribute to this by examining support from the perspective of the older adult parents, while also developing a classification scheme to describe the probability and determinants of bidirectional as well as on other types of support flows.

Out-migration from Eastern to Western Europe accelerated enormously after the fall of the Soviet Union and with entry of Eastern European countries like Romania into the European Union (Zimmer et al., 2014). Migration is not independent of support, as it tends to be a household-level decision meant to secure the financial well-being of the family through remittances (Stark & Lucas, 1988). But, support provided is influenced by both the means touched on above and geographic distance: Those closest are more likely to provide instrumental support; those living farther are more likely to provide financial support (Chen & Silverstein, 2000; Whyte & Qin, 2003).

In sum, determinants of intergenerational exchanges reflect both vulnerabilities and motives for providing support. Older adult parents tend to support their adult children when the latter are the needier (Attias-Donfut & Wolff, 2000; Kohli, 2004). Similarly, adult children are more likely to provide support when their parents are vulnerable (Korinek et al., 2011; van Eeuwijk, 2006). Motives become particularly salient in the case of high-migration countries where parents may assist the successful settlement of their migrant children via support transfers, with the expectation that their offspring reciprocate (Agree & Glaser, 2009; Brown & Poirine, 2005; Zimmer & Knodel, 2010).

Research Questions

The above overview of the empirical and theoretical literature highlights generational distance and generational need as important determinants of intergenerational relations and exchanges. Thus, we formulate our research questions with these in mind. We ask: What common typologies describe the flows of intergenerational exchanges between older adults and their adult children in Romania? Are flows conditioned by the needs of older parents? Does the location of the adult children matter for prevalent exchange typologies?

Design and Methods

Data

Data come from the 2011 RAMS (Stoica, 2011). RAMS collected a broad array of information from a sample of 1,509 Romanians aged 60+ with a focus on intergenerational exchanges and migration. It surveyed all 41 counties of Romania and the municipality of Bucharest. The data collection was administered by the Center for Urban and Regional Studies in Bucharest. Due to the collection methodology, we did not have to contend with significant missing data. The <5 respondents with missing data are not included in this study. The range of questions on the survey included location of children, health status of family members, and relevant socioeconomic variables.

The sampling strategy included (1) a survey on a nationwide, random, stratified, and multistage sample of 1,125 respondents aged 60+; (2) a survey on an add-on nationwide, quasi-random sample of 384 aged 60+ with international migrant adult children. The add-on was designed to boost the sample with international migrant children and thereby provide adequate power in analysis that compared international versus other migrants. Weights make the total sample generalizable to the Romanian population aged 60+. The current study is limited to 1,398 respondents who report having at least one living adult child.

Measures

Our objective is to assess the types of intergenerational exchanges in Romania, their association with socioeconomic and demographic characteristics of the older parents and adult children, location of adult children, and family and household characteristics. This section briefly describes the variables we use in our empirical analysis

Support Exchanges

The survey queried older respondents regarding the forms of support they received or provided to each adult child aged 15+. We consider three forms of support. For each, the older person was asked whether they received or provided this form of support. The first was provision and receipt of money. The second was the provision and receipt of material goods other than money, like food or household items. The third was physical help, which was based on providing help with things like housework or childcare. The three forms of support are titled as monetary, goods, and instrumental.

Location of the Adult Children

Proximity is based on the question: "Where does (name) live?" for each child. We consider three categories of this measure: coresident, in-country, and abroad. International migrant

children live in a different country, with 40% being in Italy, 17% in Spain, and 8% in Germany. The countries France, the UK, and the United States house 5% each, with the remaining 20% living in 25 other countries.

Older Adult Characteristics

These include age, sex, marital status, education, and health. Since sex and marital status are highly related, in that widowed are much more likely to be women than men, we create a four-category variable from sex/marital status as follows: unmarried/male, unmarried/female, married/male, and married/female. Education is divided into higher (ninth grade or higher) and lower. Health is based on a single measure of self-assessing overall health and dichotomized into better (good/very good) and worse (fair/poor/very poor).

Adult Children Characteristics

Age is based on the oldest child.⁵ Sex of children is coded into sons only, daughters only, and both sons and daughters. Education is dichotomous, measured by the adult child with the highest level of education, coded as less than postsecondary versus postsecondary. Marital status is coded as all children are unmarried, all are married, or there is a mix of married and unmarried children.

Household Characteristics

We consider the household size of the older person, by including their residual household size. We compute this by subtracting from the total household size a spouse and coresident adult child(ren), as they are represented by other variables in the model. We also consider the total number of living adult children and whether the older person does or does not live with a grandchild(ren).

Analysis

There are two steps to the analysis. The first involves assessing the structure of support by identifying common patterns. These are grouped into classes—which form dependent variables in the second step—examining determinants of support with a focus on residential location of adult children.

The first step is accomplished using a latent class analysis (LCA) approach. This is a data reduction technique that has been successfully used to characterize the structure of intergenerational relations in other settings by summarizing discrete intergenerational exchange types into classes. LCA is appropriate as it is agnostic, allowing endogenous class selection rather than picking them based on some ad hoc criteria (Guo et al., 2012; Lanza et al., 2015; McCuthcheon, 1987). The approach involves first dichotomizing the six variables representing support—that is receipt and/or provision of monetary, instrumental, and goods—and applying an iterative expectation-maximization algorithm to find maximum likelihood parameters that best describe the latent variables

underlying the data. The procedure provides class probability and item probability parameters (Nylund et al., 2007). The class probability is the likelihood of belonging to a specific class. This statistic is used to determine the relative size of each class. Item parameters indicate the probability that an individual in that class scores positively on a particular item, for instance, the probability that someone in a class will be a receiver of monetary support. Following existing best practices for assigning class membership, we determine the optimal number of classes via three commonly used tests: Bayesian information criterion, the Lo–Mendell–Rubin adjusted likelihood ratio test, and the parametric bootstrapped likelihood ratio test. Accordingly, each observation is assigned membership to the class with the highest probability.

Membership in support class is then modeled. Because the LCA procedure, as shown below, results in a 6-class solution, we conduct a multinomial logistic regression. Multinomial logistic regression analysis is appropriate as our dependent variables under examination are categorical. This modeling considers as individual variables whether or not an older person has or does not have an adult child living in each location: coresident, in-country, and abroad. Supplementary analyses considered multiple groupings (e.g., coresident and abroad, in-country and abroad, etc.) and interactions (e.g., coresident × abroad, in-country × abroad, etc.) in order to capture associations between patterns of adult child locations and support. These supplementary techniques did not provide a statistically more robust result than the one presented here whereby having an adult child in a location is considered as an independent effect. Multinomial logistic regression analysis also includes variables representing the additional domains: characteristics of older adult, characteristics of adult children, and family and household characteristics.

Coefficients in multinomial regressions are expressed relative to one contrast category of the dependent variable. This makes it difficult at times to interpret associations across categories that do not involve the contrast. To help the interpretation, we compute predicted probabilities of various support exchanges. For these, we hold the number of living adult children at two. This reflects the average number for our population, while also allowing for any combination of proximity across two locations. These computations result in the probability that an older adult is in a class type across combinations of residential location of adult children, holding all other variables in the model constant at their sample means.

Results

Intergenerational Exchanges

Descriptive statistics for study variables are shown in Table 1. In total, 34.5% of Romanians aged 60+ have a coresident adult child, 84.3% have an adult child living in-country, and 13.0% have one that has migrated internationally. The mean age of the sample is 70.5 years old. In total, 22.5% of the older

Table 1. Weighted Distribution of Study Variables.

Variables	Proportion or Mean	SD
Location of children		
Coresident	0.345	0.476
Within country	0.843	0.364
Abroad	0.130	0.336
Characteristics of older adult		
Age	70.5	7.53
Unmarried/male	0.085	0.279
Unmarried/female	0.357	0.479
Married/male	0.333	0.471
Married/female	0.225	0.418
Higher educated (Grade $9+$)	0.459	0.498
Good health	0.140	0.347
Characteristics of children		
Age of oldest	44.9	8.68
Son(s) only	0.304	0.460
Daughter(s) only	0.255	0.436
Both sons and daughters	0.441	0.497
Higher educated (Grade 12+)	0.414	0.493
Unmarried only	0.174	0.380
Married only	0.675	0.469
Both unmarried and married	0.211	0.408
Family/household characteristics		
Total number living children	2.10	1.11
Residual household size	0.427	0.861
Lives with grandchild	0.183	0.387

Note. N = 1,398.

women are married, while 33.3% of the older men are married. Only 8.5% of the older adult males are unmarried, while 35.7% of the older women are unmarried. In total, 45.9% of the older adults have an educational attainment level that is above ninth grade. Only 14% of the older adults report being in good health. In total, 18.3% of the older adults report living with a grandchild.

When it comes to their adult children, the mean age of the oldest child is 44.9 years old. In total, 30.4% of the older adults have sons only, whereas 25.5% report that they only have daughters; 44.1% have children of both sexes; 41.4% of older adults have adult children with education over Grade 12; 67.5% of the respondents have adult children who are all married, 17.4% have adult children who are all unmarried, and 21.1% have both married and unmarried adult children.

Table 2 shows the generational exchange patterns. In total, 58.0% of respondents report engaging in bidirectional exchanges, which is defined as receiving and providing at least one form of support. In contrast, 14.6% are nonexchangers, which means they do not provide or receive any form of support. Goods represent the most popular form of support exchanged: 61.7% of older persons receive goods while nearly 43.6% provide the same. Monetary is least popular: 29.1% of respondents report providing monetary support to their adult children and 26.6% report receiving monetary support.

Table 2. Percent Giving and Receiving Support.

Support Category	Percent That Give	Percent That Receive
Monetary	29.1	26.6
Instrumental	49.3	42.0
Goods	43.6	61.7
Any category	73.3	72.2
All three categories	14.7	13.5
Bidirectional supporters	!	58.0
Nonexchangers		14.6

Latent Exchange Classes

The best fitting LCA model allocates respondents to an intergenerational exchange typology with six outcome classes. We name each class based on combinations of conditional item probabilities represented by the exchange types in question. Table 3 shows our classes. There are nonexchangers, providers of all types of support, providers of goods and instrumental support (i.e., support forms that are nonmonetary), receivers of monetary support, receivers of goods and instrumental support (i.e., support forms that are nonmonetary), and bidirectional exchangers.

We show the proportion of the conditional item probabilities for each class and the distributions of the forms of support exchanged according to class. Class 1 for instance has a very low probability of engaging in any form of support exchanges. For example, respondents who belong to Class 1 have a .017 probability (which is a 1.7% chance) of receiving monetary support. Those in Class 2 have a .632 probability of providing monetary support, a .572 probability of providing goods, and a .514 probability of providing instrumental support. Class 3 is underscored by a .980 probability of providing goods. Class 4 is made up mostly of individuals that receive monetary support. Individuals in Class 5 have a .960 probability of receiving goods and a .736 probability of receiving instrumental support. If a respondent falls into Class 6, they have high probabilities of receiving instrumental and goods support, providing instrumental and goods support, and a relatively high probability of providing monetary support. Bidirectional exchangers are the largest class containing 30.7% of the sample. Receivers of monetary support are the smallest class containing just 7.6% of the sample. Note that the division of individuals into classes is not without error. Those in Class 2 for instance have a fair probability of receiving goods in addition to providing all forms of support. However, this is the best available solution, and the classification makes intuitive sense with categories for those that exchange nothing, those that exchange in both directions, those that provide or receive nonmonetary exchanges, and those that provide or receive exchanges that include monetary support.

Migration Status, Vulnerability, and Motives

Tables 4 shows multinomial logistic regression results predicting the log odds for belonging to a specific latent class and illustrating associations with covariates. A significant negative

value indicates that the characteristic associates with a lesser chance of belonging to a particular latent class, while a positive value indicates higher chances, all of which is interpreted relative to the contrast category, which is Class 1 (non-exchanger older adults).

We find that compared to older adults who belong to Class 1, the location of adult children is the most robust predictor. While other predictors also matter, location has the coefficients with the largest magnitude. An older adult with a coresident and/or in-country adult child is more likely to be a receiver of goods and instrumental support (Class 5) or a bidirectional exchanger (Class 6) than a nonexchanger. Having a child incountry also increases the chances of being a provider of either goods, instrumental support (Class 3) or of all three support forms (Class 2). On the other hand, having an adult child abroad makes it much less likely that the older adult is a provider of all support forms (Class 2) or a bidirectional exchanger (Class 6) relative to being a nonexchanger. That is, having an adult child abroad increases the chances of being a nonexchanger. But, having an adult child abroad also increases the likelihood that the older adult respondent receives monetary support (Class 4).

In contrast to nonexchangers (Class 1), bidirectional exchangers (Class 6) are respondents who tend to be married, in good health, in larger households, and living with grandchildren. The older adult respondents who are more educated and have higher educated children have a higher chance of being providers of all forms of support (Class 2). Providers of goods and instrumental support (Class 3) is significantly predicted by age of respondent, being married of both sexes or an unmarried female in comparison to unmarried male and living with a grandchild. Those receiving monetary support (Class 4) are more likely than nonexchangers to have higher educated children and to have children that are both married and unmarried. Finally, being more educated, having adult children of both sexes, having higher educated children, and living in a larger sized household is associated with receiving both goods and instrumental support (Class 5). Summarizing, besides the location of adult children, marital status/sex of older persons, their education, education of their adult children, household size, and living with grandchildren are all determinants that play a role in exchange class membership.

Table 5 presents predicted probabilities of class membership by residential location of the adult children. Location is shown as having a child in only one location (e.g., only abroad) and having children in two locations (e.g., coresident and abroad). While the lowest probability is that an older person is a receiver of monetary support (Class 4) versus other forms, this changes when they have only abroad living adult children, in which case the probability rises to .317. The probability of being in this class is lower if there is the combination of an adult child abroad and elsewhere, for instance, in-country. There is a .316 probability of being a nonexchanger if there is only an adult child abroad. Being in the bidirectional class (Class 6) is most common in cases where there is only a coresident adult child and both a coresident and in-country adult child. In this

Table 3. Results of Latent Class Analysis Showing Item-Response Probabilities for Six-Class Model.

Class I		Class 2	Class 3	Class 4	Class 5	Class 6	
Support Item	Nonexchangers	Providers—All Forms of Support	Providers—Goods and Instrumental Support	Receivers— Monetary Support	Receivers—Goods and Instrumental Support	Bidirectional Exchangers	
Receives monetary	.017	.005	.287	.697	.416	.410	
Receives instrumental	.025	.093	.282	.020	.736	.764	
Receives goods	.093	.484	.054	.257	.960	.991	
Provides monetary	.006	.632	.227	.071	.035	.555	
Provides instrumental	.149	.514	.573	.288	.434	.822	
Provides goods	0.010	.572	.980	.115	.472	.972	
Class size (%)	20.1	10.1	11.9	7.6	19.7	30.7	

Note. Boldface type indicates the ps that centrally define the class.

Table 4. Multinomial Regression Results Showing Log-Odds of Class Membership Relative to the Nonexchanger Class.

	Class 2	Class 3	Class 4	Class 5	Class 6	
Variables	Providers—All Support Categories	Providers—Goods and Instrumental Support	Receivers— Monetary Support	Receivers—Goods and Instrumental Support	Bidirectional Exchangers	
Location of children						
Coresident	.483	0.290	342	1.131**	1.332**	
Within country	.782*	0.989**	6 19 *	0.794**	0.662**	
Abroad	−. 600 *	-0.186	.579*	-0.284	-0.504*	
Characteristics of older adult						
Age	035	$-$ 0.043 $^{^{\dagger}}$	013	-0.003	-0.029	
Unmarried/male	_	_	_	_	_	
Unmarried/female	288	1.347*	.275	0.187	0.276	
Married/male	.250	1.876**	155	0.362	1.152**	
Married/female	.354	1.502**	232	-0.028	0.813*	
Higher educated $(9+)$.643*	-0.076	178	$-0.373^{^\dagger}$	-0.193	
Good health	.313	-0.043	028	-0.239	0.541*	
Characteristics of adult children						
Age of oldest	001	-0.008	004	0.006	-0.012	
Son(s) only	_	_	_	_	_	
Daughter(s) only	082	-0.405	045	0.139	-0.059	
Both sons and daughters	.246	0.221	008	0.606**	0.087	
Higher educated (12+)	.478*	0.084	.478*	0.371 [‡]	-0.057	
Unmarried only	_	_	_	_		
Married only	.118	-0.273	.265	0.210	0.099	
Both unmarried and married	.475	0.123	.766 [†]	0.317	0.484	
Family/Household Characteristic	:s					
Total number living children	203	-0.103	034	-0.004	0.030	
Household size	.192	0.135	−. 146	0.397**	0.337*	
Lives with grandchild	.475	$0.658^{^{\dagger}}$.575	0.243	0.770**	
Constant	.454	0.842	.084	-1.833	0.892	

^{**} $p < .01. *.01 < p < .05. ^{\ddagger}.05 < p < .10.$

situation, the probability of being in the bidirectional class is .393.

Discussion

This study systematically links aging, migration, and intergenerational support exchanges in Romania, an understudied yet rapidly aging country in Eastern Europe. Our main findings are

the following: (1) There are six support propensity classes, including one for nonexchangers, one for bidirectional exchangers, two for providers of support, and two for receivers. (2) Bidirectional support transfers are an important underlying intergenerational exchange structure, frequently animating familial bonds between the generations in developing Europe. (3) Physical distance between the generations is a robust predictor of support class in terms of statistical significance. (4)

	Residential Location of Adult Children					
Class Membership	Coresident	Within Country	Abroad	Coresident + Within Country	Coresident + Abroad	Within Country + Abroad
Class I: Nonexchanger	0.160	0.200	0.316	0.087	0.201	0.244
Class 2: Provider—all support categories	0.060	0.101	0.040	0.071	0.041	0.067
Class 3: Provider—goods and instrumental	0.058	0.145	0.071	0.084	0.060	0.147
Class 4: Receiver—monetary	0.064	0.061	0.317	0.019	0.143	0.132
Class 5: Receiver—goods and instrumental	0.287	0.256	0.138	0.346	0.272	0.235
Class 6: Bidirectional exchanger	0.372	0.238	0.118	0.393	0.283	0.176
Total	1.000	1.000	1.000	1.000	1.000	1.000

Table 5. Predicted Probability of Class Membership by Residential Location of Children, Holding all Other Variables Constant at Sample Mean Values.

Support class membership is also shaped by sociodemographic factors, where marital status, health, and educational attainment levels matter.

Through an examination of the flows of intergenerational exchanges between older adults and their adult children, we develop a classification scheme identifying the common propensity classes animating these relationships. Building on existing research (Aboderin, 2004; Dykstra, 2018; Leopold & Raab, 2011; Silverstein et al., 2012), our study highlights the continued need to consider the perspectives of the older adult parents, while also keeping in mind the probability and determinants of bidirectional as well as other types of support flows. Underscoring its generational centrality (Mancini & Blieszner, 1989; Silverstein et al., 2002), we find that bidirectional exchangers are the largest class in our sample. Our results reinforce that when examining intergenerational support transfers, it is important to step outside a narrow give-or-get worldview. Considering its implications for generational well-being, it is important to purposively incorporate bidirectional exchange flows.

Second, we engage with how the location of the adult children may shape the prevalent exchange typologies. We show that the robust influence of location is clearly compelling. An older adult with a coresident and/or in-country adult child is more likely to be a receiver or a bidirectional exchanger than a nonexchanger. Having an adult child in-country increases the chances of being a provider of goods, instrumental support, or of all three support forms. On the other hand, while having an adult child abroad increases the chances of being a nonexchanger, this also increases the likelihood that an older adult respondent receives monetary support. Intriguingly, we find that having coresident adult children increases the likelihood of bidirectional exchanges between the generations, but because each location works on class membership independently, having a coresident and a child abroad actually decreases the chances.

Finally, we examine how the above flows are conditioned by the needs of the older parents. We expect that support flows would be shaped by both proximity and need, the latter of which is reflected by sociodemographic controls like health status, sex, age, education, household composition, and marital status (Lin et al., 2003). We find some support for this. Health status matters, particularly when it comes to determining engagement in bidirectional exchanges. Education has interesting effects. The higher educated are more likely to provide all support forms. Having educated adult children also increases the chances of being in several classes that exchange in one direction or the other relative to being nonexchangers. It may be that the turbulent transitions experienced by the generations in Eastern Europe have affected the younger generation's returns on education, necessitating continuing monetary support by older adult parents.

Limitations

Our study suggests that exchanges are shaped by a combination of proximity and generational sociodemographic characteristics, highlighting multiple opportunities for further research. One rich area of future research could be to examine the additional influence of neighborhood-level resources, both in the adult children's and parent's localities. Resources such as access to low-cost medical facilities may influence the needs of older generations. A clear limitation of our data set is that it is cross sectional and therefore it is difficult to ascertain causal mechanisms. In addition to collecting longitudinal data on the topic of intergenerational exchanges in the still-developing regions of Eastern Europe, data need to be supplemented by further qualitative research to explore how families make decisions when it comes to the various exchange types and flows. It is also important to ask how much is enough of each type of exchange when it comes to well-being. This work needs to pay particularly close attention to those who do not partake in any exchanges, with an eye on how this affects the well-being of both generations. Longitudinal data on the topic of intergenerational exchanges could also illuminate how individuals may change class membership over the life course, possibly occupy more than one class at different times, and how the changing parental needs of aging parents may shape class membership over time.

Conclusion

Our understanding of how Eastern Europe's older adults are faring in the face of swift social changes reshaping the demographic landscape of the region remains incomplete without an examination of the intergenerational support flows between the generations. Carefully detailed flows of intergenerational transfers of support tell us as much about the social norms in this region as they do about the formal systems of support in place to assist vulnerable populations, whether they are elderly or their adult migrant children (Dykstra, 2018; Mitrut & Nordblom, 2010; Szoltysek, 2012). Our study contributes to the current literature in several ways. It is among the first to deploy LCA to understand intergenerational transfers, and it does so in Eastern Europe, a highly understudied environment still characterized by rapid levels of development and overall political and socioeconomic instability (Bodogai & Cutler, 2015; Dykstra, 2018). It highlights how location and migration enable or constrain bidirectional intergenerational exchanges. Our findings show that it is important to consider bidirectional exchanges when it comes to theoretical development in the area of intergenerational support flows. The inclusion of a bidirectional model can help when examining the ways in which institutional and cultural patterns (such as changes in the education system) shape the negotiation of intergenerational transfers, from norms of reciprocity to other relational aspects that are likely time- and geography-dependent. Our research also has important policy implications. Our study indicates that migration and low levels of fertility have not led to an abandonment of Romania's elderly. We illustrate that older respondents meaningfully contribute to the households of their adult children. Our results do not show if the aged are receiving enough support to meet their evolving socioeconomic and health needs, and therefore, keeping decreasing fertility levels in mind, there is a continued need for research when it comes to the wellbeing of Eastern Europe's elders.

Declaration of Conflicting Interests

The author(s) declared no potential conflicts of interest with respect to the research, authorship, and/or publication of this article.

Funding

The author(s) disclosed receipt of the following financial support for the research, authorship, and/or publication of this article: Boróka Bó acknowledges support from the Soros Fellowship for New Americans and from the National Science Foundation Graduate Research Fellowship. Zachary Zimmer acknowledges support from the Social Sciences and Humanities Research Council of Canada through their Canada Research Chairs program. Codrina Rada received support for data collection via a grant entitled, "The Impact of Migration on Older Age Parents Left Behind in Romania," from the *Center on Aging at the University of Utah*.

ORCID iD

Boróka Bó https://orcid.org/0000-0002-2675-2169

Notes

- 1. Organisation for Economic Co-operation and Development (OECD) estimates for rates of out-migration range between 14% and 26%, depending on education level of the migrants (https://www.oecd-ilibrary.org/sites/bac53150-en/1/2/2/index.html?item Id=/content/publication/bac53150-en&mimeType=text/html&_csp_=5911873c6569105028ad0a0066943 c9d&itemIGO=oecd&itemContentType=book).
- In 2018, 25.3% of Eastern Europe (as defined by OECD) was over the age of 60 (https://appsso.eurostat.ec.europa.eu/nui/show.do? dataset=demo_pjanind&).
- See Dykstra (2018) for a recent review of the landscape of the existing literature of intergenerational exchanges in Europe.
- 4. We also ran supplementary models considering other cutoffs, but as education levels have increased over time (while the older adults also lived through multiple periods of social turmoil curtailing their educational attainment levels), this made most sense theoretically (considering the historical context of the country) and empirically (considering the distributions shown in Table 1).
- 5. Since we cannot include all the children because the unit of analysis is the aged respondent, we include the age of the oldest partly because of social convention and because of methodological precedent (both noted by Dykstra, 2018). This also allows for clear interpretation: An increase of 1 year in the age of the oldest child will lead to a rise in the probability that the parent belongs to a particular class.

References

- Aboderin, I. (2004). Modernisation and ageing theory revisited: Current explanations of recent developing world and historical Western shifts in material family support for older people. Ageing & Society, 24(1), 29–50.
- Agree, E. M., Biddlecom, A. E., Chang, M. C., & Perez, A. E. (2002). Transfers from older parents to their adult children in Taiwan and the Philippines. *Journal of Cross-Cultural Gerontology*, 17(4), 269–294.
- Agree, E. M., & Glaser, K. (2009). Demography of informal caregiving. In P. Uhlenberg (Ed.), *International handbook of population aging* (pp. 647–668). Springer Science & Business Media.
- Anon. (2017). International Monetary Fund: World Economic Studies Division. World Economic Outlook. https://www.imf.org/en/Publications/WEO/Issues/2017/09/19/world-economic-outlook-october-2017
- Attias-Donfut, C., & Wolff, F. C. (2000). The redistributive effects of generational transfers. In S. Arber & C. Attias-Donfut (Eds.), *The myth of generational conflict: The family and state in ageing societies* (pp. 22–46). Routledge.
- Becker, G. S. (1991). *A treatise on the family* (Enlarged ed.). Harvard University Press.
- Beckett, M., Goldman, N., Weinstein, M., Lin, I. F., & Chuang, Y. L. (2002). Social environment, life challenge, and health among the elderly in Taiwan. *Social Science & Medicine*, 55(2), 191–209.
- Bernheim, D., Shleifer, A., & Summers, L. (1985). The strategic bequest motive. *Journal of Political Economy*, *33*, 1045–1076.

- Bijak, J., Kupiszewska, D., & Kupiszewski, M. (2008). Replacement migration revisited: Simulations of the effects of selected population and labor market strategies for the aging Europe, 2002–2052. Population Research and Policy Review, 27, 321–342.
- Bodogai, S., & Cutler, S. (2015). Aging in Romania: Research and public policy. *The Gerontologist*, *54*(2), 147–152.
- Brown, R. P. C., & Poirine, B. (2005). A model of migrants' remittances with human capital investment and intrafamilial transfers. *International Migration Review*, 39, 407–438.
- Ceobanu, A. M., & Koropeckyj-Cox, T. (2013). Should international migration be encouraged to offset population aging? A crosscountry analysis of public attitudes in Europe. *Population Research and Policy Review*, 32(2), 261–284.
- Chen, X., & Silverstein, M. (2000). Intergenerational social support and the psychological well-being of older parents in China. *Research on Aging*, 22(1), 43–65.
- Cong, Z., & Silverstein, M. (2011). Intergenerational exchange between parents and migrant and nonmigrant sons in rural China. *Journal of Marriage and Family*, 73, 93–104.
- Cox, D. (1990). Intergenerational transfers and liquidity constraints. The Quarterly Journal of Economics, 105(1), 187–217.
- Craciun, G. (2012). Bilant: Evaluarea activitatii Politiei de Frontiera Romane. *Frontiera*, 2, 6–9.
- de Jong Gierveld, J., Dykstra, P. A., & Schenk, N. (2012). Living arrangements, intergenerational support types and older adult loneliness in Eastern and Western Europe. *Demographic Research*, 27, 167–200.
- Deindl, C., & Brandt, M. (2011). Financial support and practical help between older parents and their middle-aged children in Europe. *Ageing & Society*, *31*, 645–662.
- Dupertuis, L., Aldwin, C. M., & Bosse, R. (2001). Does the source of support matter for different health outcomes? Findings from the normative aging study. *Journal of Aging and Health*, 13(4), 494–510.
- Dykstra, P. A. (2018). Cross-national differences in intergenerational family relations: The influence of public policy arrangements. *Innovation in Aging*, 2(1), 1–9.
- Fingerman, K., Miller, L., Birditt, K., & Zarit, S. (2009). Giving to the good and the needy: Parental support of grown children. *Journal of Marriage and Family*, 71, 1220–1233.
- Frankenberg, E., Chan, A., & Ofstedal, M. B. (2002). Stability and change in living arrangements in Indonesia, Singapore, and Taiwan, 1993-1999. *Population Studies*, 56(2), 201–213.
- Gauthier, A. H. (2007). The impact of family policies on fertility in industrialized countries: A review of the literature. *Population Research and Policy Review*, 26(3), 323–346.
- Grundy, E. (2005). Reciprocity in relationships: Socio-economic and health influences on intergenerational exchanges between Third Age parents and their adult children in Great Britain. *The British Journal of Sociology*, 56, 233–255.
- Guo, M., Chi, I., & Silverstein, M. (2012). The structure of intergenerational relations in rural China: A latent class analysis. *Journal of Marriage and Family*, 74(10), 1114–1128.
- Ikkink, K. K., Van Tilburg, T., , & Knipscheer, K. C. P. M. (1999).Perceived instrumental support exchanges in relationships between

- elderly parents and their adult children: Normative and structural explanations. *Journal of Marriage and Family*, 61, 831–844.
- Kohli, M. (2004). Intergenerational transfers and inheritance: A comparative view. In M. Silverstein (Ed.), *Intergenerational relations across time and place* (pp. 266–289). Springer.
- Kohli, M., & Künemund, H. (2003). Intergenerational transfers in the family: What motivates giving? In V. L. Bengtson & A. Lowenstein (Eds.), *Global aging and challenges to families* (pp. 123–142). Aldine de Gruyter.
- Korinek, K., Zimmer, Z., & Gu, D. (2011). Transitions in marital status and functional health and patterns of intergenerational co residence among China's elderly population. *Journals of Geron*tology Series B: Psychological Sciences and Social Sciences, 66(2), 260–270.
- Lanza, S. T., Dziak, J. J., Huang, L., Wagner, A. T., & Collins, L. M. (2015). LCA Stata plugin users' guide Version 1.2. The Methodology Center. methodology.psu.edu
- Lee, Y. J., Parish, W. L., & Willis, R. J. (1994). Sons, daughters, and intergenerational support in Taiwan. American Journal of Sociology, 99(4), 1010–1041.
- Leopold, T., & Raab, M. (2011). Short-term reciprocity in late parent-child relationships. *Journal of Marriage and Family*, 73, 105–119.
- Lin, I. F., Goldman, N., Weinstein, M., Lin, Y. H., Gorrindo, T., & Seeman, T. (2003). Gender differences in adult children's support of their parents in Taiwan. *Journal of Marriage and Family*, 65, 184–200.
- Mancini, J, & Blieszner, R. (1989). Aging parents and adult children: Research themes in intergenerational relations. *Journal of Marriage and Family*, 51, 275–290.
- Mccuthcheon, A. L. (1987). Latent class analysis. SAGE.
- Merz, E., Schuengel, C., & Schulze, H. (2009). Intergenerational relations across 4 years: Well-being is affected by quality, not by support exchange. *The Gerontologist*, 49(4), 536–548.
- Mitrut, A., & Nordblom, K. (2010). Social norms and gift behavior: Theory and evidence from Romania. *European Economic Review*, 54(8), 998–1015.
- Mönkediek, B., & Bras, H. (2014). Strong and weak family ties revisited: Reconsidering European family structures from a network perspective. *The History of the Family*, *19*, 235–259.
- Nylund, K. L., Asparouhov, T., & Muthén, B. O. (2007). Deciding on the number of classes in latent class analysis and growth mixture modeling: A Monte Carlo simulation study. Structural Equation Modeling: A Multidisciplinary Journal, 14(4), 535–569.
- Putnam, R. D. (2000). *Bowling alone: The collapse and revival of American community*. Simon & Schuster.
- Quashie, N., & Zimmer, Z. (2013). Residential proximity of nearest child and older adults' receipts of informal support transfers in Barbados. Ageing & Society, 33, 320–341.
- Reher, D. S. (1998). Family ties in Western Europe: Persistent contrasts. *Population and Development Review*, 24, 203–234.
- Silverstein, M. (2006). Intergenerational family transfers in social context. In R. H. George & and L. Binstock (Eds.), *Handbook of aging and the social sciences* (pp. 165–180). Academic Press.
- Silverstein, M., Conroy, S. J., & Gans, D. (2012). Beyond solidarity, reciprocity and altruism: Moral capital as a unifying concept in

intergenerational support for older people. Ageing & Society, 32(7), 1246-1262.

- Silverstein, M., Conroy, S. J., Wang, H., Giarrusso, R., & Bengtson, V. L. (2002). Reciprocity in parent-child relations over the adult life course. *The Journals of Gerontology, Series B: Psychological Sciences and Social Sciences*, 57, S3–13.
- Spilerman, S. (2000). Wealth and stratification processes. *Annual Review of Sociology*, 26, 497–524.
- Stark, O., & Lucas, R. E. (1988). Migration, remittances and the family. Economic Development and Cultural Change, 36(3), 465–481.
- Stoica, A. C. (2011). The impact of migration on older parents left behind in Romania: A methodological report. Center for Urban and Regional Sociology.
- Szołtysek, M. (2012). Spatial construction of European family and household systems: A promising path or a blind alley? An Eastern European perspective. *Continuity and Change*, 27(1), 11–52.
- van Eeuwijk, P. (2006). Old-age vulnerability, ill-health and care support in urban areas of Indonesia. *Ageing & Society*, 26(1), 61–80.
- van Nimwegen, N., & & van der Erf, R. (2010). Europe at the cross-roads: Demographic challenges and international migration. *Journal of Ethnic and Migration Studies*, 36(9), 1359–1379.
- Whyte, M. K., & Qin, X. (2003). Support for aging parents from daughters versus sons. In M. K. Whyt (Ed.), *China's revolutions*

- and intergenerational relations (pp. 167–195). University of Michigan Press.
- Zimmer, Z., & Knodel, J. (2010). Return migration and the health of older aged parents: Evidence from rural Thailand. *Journal of Aging and Health*, 22(7), 955–976.
- Zimmer, Z., & Korinek, K. (2010). Shifting coresidence near the end of life: Comparing decedents and survivors of a follow-up study in China. *Demography*, 47(3), 537–554.
- Zimmer, Z., Natividad, J., Lin, H. S., & Chayovan, N. (2000). A crossnational examination of the determinants of self-assessed health. *Journal of Health and Social Behavior*, 41(4), 465–481.
- Zimmer, Z., Rada, C., & Stoica, C. A. (2014). Migration, location and provision of support to older parents: The case of Romania. *Journal of Population Ageing*, 7(3), 161–184.

Author Biographies

Boróka Bó is a doctoral candidate in the Joint Sociology and Demography PhD programs at the University of California, Berkeley.

Zachary Zimmer is a professor in the Department of Family Studies and Gerontology and a Canada Research chair in Global Aging and Community at Mount Saint Vincent University.

Codrina Rada is an associate professor of Economics and director of Graduate Studies in the Economics Department at the University of Utah.