Dynamics of Volunteering in Older Europeans

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Purpose: To investigate the dynamics of volunteering in the population aged 50 years or older across 11 Continental European countries. Design and Methods: Using longitudinal data from the first 2 waves of the Survey of Health, Ageing and Retirement in Europe, we run multivariate regressions on a set of binary-dependent variables indicating transitions from active volunteering to inactivity and vice versa. **Results:** Volunteer transitions were affected by both time-invariant individual resources and changes in individuals' resources. Moreover, we found that the societal context in which older persons live not only has a significant impact on the prevalence of volunteering at a given point in time but that the dynamics of volunteering also vary by country. Implications: Our study supports the notion of volunteering as an important productive aging activity and underlines the importance of both life-course and social context factors as determinants of volunteer dynamics at older ages.

Key Words: Volunteering, Productive aging, Life course

Productive aging has become an important issue across the aging world, and volunteering is one of the most prominent examples for a productive aging activity (e.g., Hank & Erlinghagen, in press; Morrow-Howell, Hinterlong, & Sherraden, 2001). Numerous initiatives have aimed to *activate* yet unused productive potentials in the older population (e.g., Atkinson, 2006; Henkin & Zapf, 2006–2007), but it is equally important to ensure the *sustainability* of volunteering in later life. We thus need to understand well under which individual and social circumstances older people initiate or terminate service (e.g., Morrow-Howell & Mui, 1989; Wilson & Musick, 1999; Warburton, Paynter, & Petriwskyj, 2007). There are already studies that investigated seniors' voluntary engagement from a life-course perspective (e.g., Bukov, Maas, & Lampert, 2002; Butrica, Johnson, & Zedlewski, in press; Musick & Wilson, 2008, chap. 11) or taking a cross-national perspective (e.g., Erlinghagen & Hank, 2006; Hank & Stuck, 2008), but the lack of cross-nationally comparative longitudinal microdata has yet prohibited empirical analyses integrating these two approaches.

Newly available longitudinal data from the first two waves of the biannual Survey of Health, Ageing and Retirement in Europe (SHARE) allow us to fill this gap. This study aims to provide, first, a comprehensive account of the determinants of volunteer dynamics in a variety of Continental European countries and, second, an initial answer to the question of whether volunteer transitions in later life follow cross-national patterns similar to those observed in cross-sectional studies investigating the prevalence of volunteering. To begin with, we briefly introduce our analytic framework and provide a review of the literature, which is followed by a description of the data and methods used. We then present a thorough account of both patterns and determinants of continuity and change in older people's voluntary engagement across 11 Continental European countries. The final section concludes and suggests perspectives for future research.

Conceptual Framework and Literature Review

Bass & Caro (2001, p. 38) noted that "despite the growing interest among scholars, practitioners, and older people themselves in the area of productive aging, additional theoretical work is needed to better understand the multiple variables associated with the choices people make regarding work, learning, and leisure in later life." Against this background, Choi (2003, figure 1) suggested a conceptual framework for volunteerism among

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older people in which "environmental factors" (e.g., region) and "social-structural factors" (e.g., gender) determine individuals' "social roles" (e.g., work) and "resources" (e.g., health), which-along with "life style" factors-eventually determine the volunteer decision (also see Bass & Caro, figure 3.2). This framework acknowledges the important role of social context in individual action by taking into account environmental factors, but it lacks explicit consideration of life-course dynamics, that is, the potential role of changes in individuals' social roles or resources, for example. Building on Choi's framework, we therefore propose a dynamic model of volunteer action which, first, conceives of the individual's country of residence as a social environment providing opportunities and constraints for volunteering (cf. Hank, 2009) and, second, considers time-constant as well as time-varying individual characteristics as major determinants of volunteer transitions in later life. In the remainder of this section, we describe the life-course and cross-national perspectives on elder volunteering, which we consider as central to our analysis in greater detail.

Life-Course Perspectives on Volunteering at Older Ages

Both theoretical conceptualizations of social participation (cf. Bukov et al., 2002) and ample empirical evidence indicated that individual resources-such as education or health-are generally important determinants of volunteering (see Musick & Wilson, 2008, part III, for a recent overview). Although a substantial proportion of the frequently suggested decline in seniors' voluntary engagement-voluntary association membership, respectively-appears to be due to differences in compositional characteristics between age groups (Cutler & Hendricks, 2000), the relative importance of specific resources for as well as the benefits from volunteering have still been shown to vary across the life course (cf. Tang, 2006; Van Willigen, 2000). Moreover, there is a likely impact of critical life events such as retirement, widowhood, or health shocks (cf. Musick & Wilson, 251ff.; also see Rotolo, 2000)-mediated through changes in individuals' social roles, for example-which further stresses the need to take a life-course perspective on the dynamics of volunteering.

Volunteering and Retirement. - Retirement is one of the major life transitions in later life (see, e.g., Kim & Moen, 2001). Much of the discussion about the relationship between retirement and voluntary engagement has been driven by role theory (e.g., Chambré, 1984; Kaskie, Imhof, Cavanaugh, & Culp, 2008). Solid empirical evidence is scarce, though, suggesting that entering retirement has not only some positive effect on the probability of taking-up volunteer work (and even more so on the number of hours contributed) but also showing that previous voluntary engagement has an even stronger influence on people's receptivity to volunteering in the immediate postretirement period (cf. Erlinghagen, 2008; Mutchler, Burr, & Caro, 2003).

Volunteering and Widowhood.-Spouses' voluntary engagement has been shown to be closely interrelated (cf. Rotolo & Wilson, 2006), suggesting that it is important for analysts to account for partnership status. Again, role theories were frequently referred to in order to derive hypotheses about the potential effects of losing one's spouse on volunteering (e.g., Donelly & Hinterlong, in press; Li, 2007; Utz, Carr, Nesse, & Wortman, 2002). The empirical evidence to date is ambiguous, though, leading Musick & Wilson (2008, p. 264) to conclude "that it is difficult to predict the consequences of spousal loss for volunteering. Much seems to depend on the age at which the loss is experienced, the volunteer activity of the spouse who died, the type of volunteer work, and, no doubt, the nature of the marital relationship."

Volunteering and Health.-Many volunteers seem to enjoy health benefits from their engagement (even when accounting for potential selection effects), but poor health may be a significant barrier to volunteering (e.g., Li & Ferraro, 2006; Musick & Wilson, 2008, 164ff.; Thoits & Hewitt, 2001). This, however, does not always seem to be the case: Li & Ferraro (2006) found that functional limitations were not a barrier to volunteer participation and that depressive symptoms even sparked volunteering in later life (as a means of compensation). The authors recommended, however, that their results regarding functional limitations should be treated with caution, and recent evidence from the Health and Retirement Study (HRS) suggested that the onset of functional limitations actually increases the likelihood of terminating volunteer service (Butrica et al., in press).

Cross-National Perspectives on Older People's Volunteering

Although the individual-level determinants of volunteering tend to be very robust across different societal contexts (cf. Hank & Stuck, 2008; Musick & Wilson, 2008, p. 365), cross-national studies revealed considerable variation in the overall levels of voluntary engagement, both in the general population and among seniors (e.g., Curtis, Baer, & Grabb, 2001; Erlinghagen & Hank, 2006; Musick & Wilson, chap. 16). Baseline findings from the SHARE, covering the population aged 50 vears or older in 11 Continental European countries, indicated a clear north-south gradient (see Hank & Erlinghagen, in press, for an overview): Denmark, Sweden (17%–18%), and particularly the Netherlands (21%) were characterized by the highest shares of older people reporting to have volunteered in the month preceding the interview. Belgium, France, and Switzerland (14%–15%) are followed by Germany and Austria (8%-10%), constituting a group of countries with medium levels of participation. The proportions of volunteers in Italy (7%) as well as in Greece and Spain (2%-3%)were clearly below the Continental European average of 10% older volunteers.

In search for a comprehensive explanation of this pattern, Hank (2009) argued that a country's welfare state regime and civic culture are core factors in shaping the opportunity structure for active voluntary engagement. His empirical results indicated that higher degrees of civil liberties (such as freedoms of expression and belief or associational and organizational rights) as well as larger shares of government social spending (in % of a country's gross domestic product) were positively associated with senior citizens' voluntary engagement (also see Curtis et al., 2001). These macro-level factors explain a significant proportion of the differences in volunteering among the older population in Continental Europe.

Design and Methods

The analysis presented here is based on the first public release of two-wave longitudinal data from the SHARE (see Börsch-Supan, Hank, & Jürges, 2005). The survey was modeled closely after the U.S. HRS, and it is the first European data set to combine extensive cross-national and longitudinal information on socioeconomic status, health, and family relationships of the older population. The 2004–2005 SHARE baseline sample contains information on some 30,000 individuals aged 50 years or older in 12 countries, representing Europe's economic, social, institutional, and cultural diversity from Scandinavia to the Mediterranean (including Israel). Baseline data from two Central European countries—the Czech Republic and Poland—were collected in parallel to the first longitudinal round of SHARE in 2006–2007, which did not include Israel (see http://www.shareproject.org, for a detailed breakdown of sample sizes by country, sex, and age).

The response rate in Wave 1 was 62%; according to preliminary calculations, attrition in Wave 2 amounted to 28% (details are discussed in de Luca & Peracchi, 2005; Schröder, 2008). These numbers are very similar to those achieved in other recent cross-national surveys conducted in Europe (cf. de Luca & Peracchi, table 9.1), and sensitivity analyses for a set of core variables from the baseline wave did not provide indication for significant nonresponse bias (see Kalwij & van Soest, 2005). Still, compared with the first two waves of the HRS, for example, which were conducted in 1992 and 1994 (cf. Kapteyn, Michaud, Smith, & van Soest, 2006), SHARE achieved lower rates of survey participation. This should not come as a surprise, though, because nonresponse in general has been shown to vary considerably across countries-being particularly low in the United Statesand to have increased over the years (see de Leeuw & de Heer, 2002).

Because respondents' willingness to participate in a longitudinal survey does not only vary across time and countries but might also be affected by characteristics related to social participation (e.g., Abraham, Helms, & Presser, 2009; Bukov et al., 2002), we complemented our estimation of standard logistic models by running a probit model with sample selection (e.g., van de Ven & van Pragg, 1981). In addition to gender, age, level of education, and self-rated general health-which were also included in our models predicting volunteer transitions (see subsequently)-length of interview in Wave 1 was used as a control variable in the selection equation (cf. Schröder, 2008, figure 2, for an overview of attrition rates by interview duration in SHARE).

Our analysis is based on the question "Have you done any of these activities in the last month?", referring to a list of possible answer categories including "done voluntary or charity work." This broad—and thus in some ways limited—measure of formal volunteering is clearly distinguishable

Country	Active in Wave 1 ^b	Active in Wave 2 ^b	Active in either wave ^c	Transition from inactive in Wave 1 to active in Wave 2 ^c	Transition from active in Wave 1 to inactive in Wave 2 ^c
Sweden	17.8	21.0	28.6	12.0	38.0
Denmark	17.4	21.3	30.9	13.5	37.8
Germany	10.1	12.9	20.9	8.4	44.0
The Netherlands	20.8	25.6	34.1	12.4	32.3
Belgium	15.5	16.9	23.4	7.3	35.1
France	14.1	15.5	23.2	7.4	44.5
Switzerland	14.5	16.8	25.5	11.3	50.5
Austria	8.3	9.6	15.5	6.3	65.5
Italy	6.8	8.4	11.9	4.6	53.0
Spain	2.4	2.6	4.4	1.9	55.9
Greece	2.9	2.2	3.8	0.8	64.6
Israel ^c	12.1	_	_	_	_
Czech Republic	_	3.0	_	_	_
Poland	_	2.0	_		_
All countries	10.0	10.8	20.0	7.2	41.4

Table 1. Participation (%) in Voluntary Work Across SHARE Waves 1 and 2^a

Notes: SHARE = Survey of Health, Ageing and Retirement in Europe.

^an (Wave 1) = 29,651; n (Wave 2) = 31,873 (including observations from refresher samples); n (Waves 1 and 2; longitudinal) = 18,057. See http://www.share-project.org, for a detailed breakdown of sample sizes by country, sex, and age.

^bCross-sectional weights applied.

^cNo weights applied.

Source: SHARE, Wave 1 (Release 2.0.1) and Wave 2 (Release 1.0.1), own calculations.

from informal help or care provided to family, friends, or neighbors, which is also covered in the questionnaire (cf. Hank & Stuck, 2008), albeit not in a format that readily allows for longitudinal analysis. From the available information—which does not contain the number of hours spent volunteering—we derived a set of binary indicators indicating voluntary engagement in Wave 1 and/or Wave 2 as well as transitions from active volunteering to inactivity and vice versa. The latter two constitute the dependent variables for our multivariate analysis, whose exclusive focus is on the *dynamics* of volunteering (see Erlinghagen & Hank, 2006, for a cross-sectional study of volunteering using SHARE).

On the right-hand side of the regression, we employed a comprehensive set of binary time-constant and time-varying variables. The former include gender, age at Wave 1 (50–64, 65–74, 75 years or older), and the highest educational degree ever achieved ("low" = lower secondary level of education or less; "medium" = upper secondary or postsecondary, nontertiary level of education; "high" = first stage of tertiary education or higher). Timevarying explanatory variables are partnership status (living with or without a partner), the individual's self-reported employment status ([self-]employed, not [self-]employed, retired), and self-rated general health ("good or better" vs. "fair or worse").

We also controlled for the time lag (in months) between Waves 1 and 2 interviews. In the majority of countries, the average time between baseline and longitudinal interview was 30-32 months, whereas this lag was substantially shorter in Belgium and France (21–22 months). Finally, we took into account the potential role of societal context by including binary indicators for the individual's country of residence. To facilitate the interpretation of these variables' coefficients, we used effect coding to highlight each country's deviation from the grand mean of all countries in the sample. Effect coding uses contrast weights that result in tests of deviations of group means from the intercept coefficient, which inherits the value of the grand mean (see Wendorf, 2004, for details).

Results

Patterns of Continuity and Change in Volunteering

Although the proportion of volunteers in some countries was somewhat higher in Wave 2 than at baseline, no substantial changes in the magnitude of volunteering or in the rank order of countries with regard to seniors' voluntary engagement occurred between the first two waves of SHARE (see Table 1). On average, 10% of the population aged 50 years or older engaged in volunteer activities during the month preceding the SHARE interview(s). This proportion doubles to 20% if one looks at those volunteering in either one of the currently available waves of SHARE. This very clearly shows that the fraction of people getting involved in voluntary activities at some point during the later stages of their life course is much higher than simple cross-sectional evidence would suggest (see Butrica et al., in press, table 1, for related U.S. evidence). The highest rates of volunteering were observed in Denmark, Sweden, and the Netherlands, whereas the Mediterranean countries were characterized by clearly below-average proportions of older volunteers. The share of older Israelis performing voluntary work corresponded to the Continental European average, whereas the respective numbers in Poland and the Czech Republic were very close to those observed in Greece and Spain.

Table 1 also suggests considerable cross-national variation in volunteer dynamics among older people. Greece and Austria, where almost two thirds of those who volunteered in Wave 1 had ceased doing so in Wave 2, exhibited the greatest instability of voluntary engagement across time. The reverse was true in the two Scandinavian countries as well as in Belgium and the Netherlands, where about two thirds of volunteers were active in both waves of SHARE. These countries were not only characterized by the greatest stability of engagement but also exhibited the greatest dynamics in the sense that 12%-13% of those who were inactive at baseline took up voluntary work between waves (compared with merely 1%-2% in Greece and Spain). The aggregate pattern of volunteer dynamics in Northern Europe thus appears to be very similar to the one described by Butrica et al. (in press, table 2) for a sample of HRS respondents aged 55-65 years in 1996: 35% of those who had volunteered at baseline stopped 2 years later, whereas 12% of the nonvolunteers had started to volunteer by 1998.

Determinants of Volunteer Dynamics

The probability of *taking-up* voluntary work (see Table 2) was lowest among those in the oldest age group (75 years or older), whose health was less than very good in both waves (or whose health deteriorated between waves), and among those living in Spain and Greece. More highly educated individuals as well as those who were not gainfully employed in both waves (or those who stopped employment between waves) exhibited the highest propensity to start volunteering. Moreover, nonvolunteers at baseline living in Sweden, Denmark, the Netherlands, France, or Switzerland were also more likely than the average to report voluntary engagement in Wave 2. Gender and partnership status did not bear any statistically significant association with volunteer take-up.

Turning to *giving-up* volunteering (see Table 2), we found that a higher level of education, being retired in both waves, and living in Belgium, the Netherlands, or Scandinavia was associated with a reduced probability of quitting. The oldest respondents, baseline volunteers whose health was less than very good throughout, and respondents from Austria or Greece exhibited the highest odds of withdrawing from voluntary engagement. Again, gender and partnership status turned out to be insignificant. Taken together, our findings indicated that many of those variables predicting volunteer exits have a reverse impact on nonvolunteers' decision to start volunteering.

When looking at the results of the probit models with sample selection (details not shown here), we found some evidence for selectivity in the model predicting volunteer take-up but not in the one for giving-up. However, although age ("born in 1929 or earlier") and health ("less than very good in both waves") were no longer significant at the 5% level of significance in the former model (but still marginally significant at the 10% level), there was no need to change our main conclusions after having corrected for selection. This corroborates previous evidence about potential effects of nonresponse bias on inferences about the determinants of volunteering (e.g., Abraham et al., 2009; Bukov et al., 2002).

Discussion

Building on Choi's (2003) conceptual framework for volunteerism among older adults, we proposed a dynamic model of senior volunteering which, first, conceives of the individual's country of residence as a social environment providing opportunities and constraints for voluntary engagement ("environmental factors") and, second, considers time-constant as well as time-varying individual characteristics ("social-structural factors," "social roles," and "resources") as major determinants of volunteer transitions in later life.

The analysis of longitudinal data from the first two waves of the SHARE showed that at the time of each interview 10% of the respondents aged 50 years or older were engaged in volunteering but

	Inactive \rightarrow Active	Active → Inactive
Time-constant individual characteristics		
Gender (female)	0.91 (0.80-1.04)	0.86 (0.72-1.03)
Age at Wave 1: 50–64 years ^a	1.00	1.00
Age at Wave 1: 65–74 years	0.92 (0.77-1.09)	1.12(0.88 - 1.42)
Age at Wave 1: 75 years or older	0.44** (0.34–0.56)	1.79** (1.30-2.46)
Low education ^a	1.00	1.00
Medium education	1.46** (1.25-1.70)	0.93 (0.75-1.15)
High education	1.57** (1.32–1.87)	0.68** (0.55-0.85)
Continuity and change in partnership	х, , , , , , , , , , , , , , , , , , ,	Υ Υ
Partner, continuous ^a	1.00	1.00
Partner, never	0.97 (0.83-1.14)	0.85 (0.69-1.05)
Single \rightarrow partner	1.11 (0.78–1.57)	1.67 (0.92-3.05)
Partner \rightarrow single	0.87 (0.56-1.35)	0.99 (0.51-1.92)
Continuity and change in employment		
(Self-)employed, continuous ^a	1.00	1.00
Retired, continuous	1.45** (1.20-1.76)	0.62** (0.47-0.80)
Not employed (other), continuous	1.35** (1.08–1.67)	0.76 (0.57–1.02)
Employed \rightarrow retired	1.79** (1.36-2.34)	0.87 (0.57-1.34)
Employed \rightarrow not employed (other)	1.87** (1.31-2.67)	1.42 (0.81–2.49)
Retired/not employed \rightarrow employed	0.87 (0.51-1.48)	2.16* (1.17-3.97)
Continuity and change in health		
Very good or better, continuous ^a	1.00	1.00
Very good or better, never	0.62** (0.53-0.73)	1.40** (1.12-1.75)
Less than very good \rightarrow very good or better	0.86 (0.68-1.09)	1.34 (0.98-1.83)
Very good or better \rightarrow less than very good	0.80* (0.65-0.97)	1.26 (0.96-1.66)
Number of months between interviews	1.01 (0.99-1.03)	1.01 (0.98-1.03)
Country ^b		
Sweden	2.00** (1.70-2.35)	0.66** (0.52-0.83)
Denmark	1.92** (1.58-2.34)	0.67** (0.50-0.88)
Germany	1.22 (0.99–1.49)	0.85 (0.64-1.14)
The Netherlands	2.14** (1.78-2.57)	0.49** (0.39-0.63)
Belgium	1.26 (1.00-1.60)	0.65** (0.49-0.87)
France	1.38** (1.09–1.74)	0.92 (0.68-1.24)
Switzerland	1.85** (1.44-2.39)	1.17 (0.81–1.71)
Austria	0.89 (0.68-1.14)	2.32** (1.30-3.97)
Italy	0.81 (0.64-1.02)	1.22 (0.86-1.71)
Spain	0.36** (0.25-0.53)	1.30 (0.68-2.47)
Greece	0.12** (0.08-0.19)	2.10** (1.30-3.41)
Log likelihood	-3,717	-1,576
Ν	15,584	2,435

Notes: SHARE = Survey of Health, Ageing and Retirement in Europe.

^aReference category.

^bEffect coding.

*Significant at 5% level. **Significant at 1% level.

Source: SHARE, Wave 1 (Release 2.0.1) and Wave 2 (Release 1.0.1), own calculations.

that the fraction of volunteers in either wave (i.e., if the entire study period is considered) is as high as 20%. The highest rates of participation in voluntary work are consistently found in Northern Europe (including the Netherlands), whereas Southern European countries exhibit the lowest levels of volunteering in later life. Moreover, we found that the societal context in which older persons live not only has a significant impact on the prevalence of volunteering at a given point in time (cf. Hank, 2009) but that the dynamics of volunteering also vary by country. Comparing, for example, Sweden and Greece suggests that social environments characterized by higher proportions of older volunteers cross-sectionally also fare well in establishing opportunity structures, which stabilize seniors' voluntary activity and foster takingup new engagement.

This supports the importance of taking into account "environmental factors" in any analysis of volunteering and its dynamics at older ages. Two dimensions of the individual's social context seem particularly relevant here: family culture and welfare state regime. There is ample evidence indicating that, for example, in Southern Europe high levels of "informal" social relations within the family network tend to crowd-out "formal" social participation, such as volunteering (e.g., Kohli, Hank, & Künemund, in press; Pichler & Wallace, 2007). Welfare state interventions seeking to promote volunteering in the Mediterranean context are thus likely to fail if they ignore the eminent role of support within families. It also seems important to account for national idiosyncrasies in the interplay between the welfare state and the voluntary sector: In liberal regimes, for example, lacking services of the welfare state were shown to be substituted by voluntary engagement in churchrelated organizations, whereas social democratic regimes rather promoted people's membership in trade unions and political organizations (see Curtis et al., 2001, p. 786). Unfortunately, our measure of volunteering does not allow us to identify in which particular sector the individual's engagement takes place. This is clearly a limitation because differences in the structure of the voluntary sector—or the nonprofit sector more generally (cf. Salamon & Anheier, 1998)-may require tailor-made policy measures to foster social participation and productive aging, suggesting that culturally blind "one-size-fits-all" strategies are unlikely to be successful.

However, our knowledge about which particular programs and initiatives will maximize the engagement of older adults in volunteer roles in a specific context is yet incomplete. Policy measures designed to promote volunteering among older people may be initiated at the national, state, or community level and may be targeted at individuals or at voluntary organizations: National- or state-level policies need to make sure that they are administered locally in efficient ways because the involvement of communities is critical for their success (e.g., Henkin & Zapf, 2006-2007); measures targeted at voluntary organizations should aim at improving institutional capacity to take advantage of the growing potential of older volunteers (e.g., Hong, Morrow-Howell, Tang, & Hinterlong, 2009). Clearly, more in-depth knowledge about the exact social mechanisms being at work here is badly needed in order to further remove barriers to and set incentives for sustainable voluntary engagement in the older population particularly in those societal contexts that were yet less successful in creating favorable circumstances for voluntary productive aging activities (see Warburton et al., 2007, for a detailed discussion).

Our results concerning the individual-level determinants of volunteer dynamics are largely consistent with previous research (e.g., Butrica et al., in press; Choi, 2003; Erlinghagen, 2008; Mutchler et al., 2003). The role of age as a major "social structural" determinant of social participation was confirmed, whereas gender did not bear any statistically significant association with volunteer transitions. Turning to "social roles," we detected some positive correlation of nonemployment (leaving the paid labor force) with volunteering but no effect of partnership status or changes therein. Finally, volunteer transitions among older Europeans were shown to be affected by individual "resources." This holds for both time-invariant characteristics (e.g., one's level of education) and time-varying resources (e.g., health status), where changes to the better or worse may impact volunteer dynamics. Our findings underline the need for sustained efforts to promote people's health and education across the life course. A recent practical example along these lines is the project "Lifelong learning and active citizenship in Europe's ageing society," funded by the European Commission (see http://www.lace-project.net, for details).

Having shown here that Choi's conceptual framework can be readily adapted to studying the dynamics of volunteering in later life, future research should address the following empirical issues in particular: First, the relationship between life-course transitions at older ages, such as entering retirement, and earlier life events and experiences in determining seniors' voluntary engagement deserves further attention (e.g., Mutchler et al., 2003). Second, although in our study we did not find evidence for a statistically significant relationship between older people's partnership status (or changes therein) and volunteer transitions, it may still be worth taking a more detailed look at this from the perspective of couples (rather than individuals) and their possibly joint history of volunteering (e.g., Rotolo & Wilson, 2006). Third, the relationship between health and volunteeringwith the former being both a barrier to and a benefit resulting from the latter (cf. Li & Ferraro, 2006)—remains an important topic that has rarely been addressed in cross-national research (but see Sirven & Debrand, 2008). Fourth, and finally, it will be interesting to analyze the interrelationship between different productive aging activities—such as volunteering and caring—over time (e.g., Burr, Choi, Mutchler, & Caro, 2005; Hank & Stuck, 2008). The knowledge accumulated in the course of the research agenda proposed here shall provide a sound basis for successful policies and programs aiming to activate and sustain older people's voluntary participation because they will be well informed about the manifold relationships between volunteering and important life events, such as retirement or widowhood, in later life.

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References

- Abraham, K. G., Helms, S., & Presser, S. (2009). How social processes distort measurement: The impact of survey nonresponse on estimates of volunteer work in the United States. *American Journal of Sociology*, 114, 1129–1165.
- Atkinson, P. (2006). Mobilizing retired people in ageing societies on a voluntary basis. Paris, France: GEM Policy Brief.
- Bass, S. A., & Caro, F. G. (2001). Productive aging: A conceptual framework. In N. Morrow-Howell, J. Hinterlong, & M. Sherraden (Eds.), *Productive aging: Concepts and challenges* (pp. 37–78). Baltimore: Johns Hopkins University Press.
- Börsch-Supan, A., Hank, K., & Jürges, H. (2005). A new comprehensive and international view on ageing: Introducing the Survey of Health, Ageing and Retirement in Europe. *European Journal of Ageing*, 2, 245–253.
- Bukov, A., Maas, I., & Lampert, T. (2002). Social participation in very old age: Cross-sectional and longitudinal findings from BASE. *Journal of Gerontology: Psychological Sciences*, 57B, P510–P517.
- Burr, J. A., Choi, N. G., Mutchler, J. E., & Caro, F. G. (2005). Caregiving and volunteering: Are public and private helping behaviors linked? *Journal of Gerontology: Social Sciences*, 60B, S247–S256.
- Butrica, B. A., Johnson, R. W., & Zedlewski, S. R. (in press). Volunteer dynamics of older Americans. Journal of Gerontology: Social Sciences.
- Chambré, S. M. (1984). Is volunteering a substitute for role loss in old age? An empirical test of activity theory. *The Gerontologist*, 24, 292–298.
- Choi, L. H. (2003). Factors affecting volunteerism among older adults. Journal of Applied Gerontology, 22, 179–196.
- Curtis, J. E., Baer, D. E., & Grabb, E. G. (2001). Nations of joiners: Explaining voluntary association membership in democratic societies. *American Sociological Review*, 66, 783–805.
- Cutler, S. J., & Hendricks, J. (2000). Age differences in voluntary association memberships: Fact or artifact. *Journal of Gerontology: Social Sciences*, 55B, \$98–\$107.
- de Leeuw, E., & de Heer, W. (2002). Trends in household survey nonresponse: A longitudinal and international comparison. In R. M. Groves, D. A. Dillman, J. L. Eltinge, & R. J. A. Little (Eds.), *Survey nonresponse* (pp. 41–54). New York: Wiley.

- de Luca, G., & Peracchi, F. (2005). Survey participation in the first wave of SHARE. In A. Börsch-Supan & H. Jürges (Eds.), *The Survey of Health, Ageing and Retirement in Europe—Methodology* (pp. 88–104). Mannheim, Germany: MEA.
- Donelly, E. A., & Hinterlong, J. E. (in press). Changes in social participation and volunteer activity among recently widowed older adults. *The Gerontologist*.
- Erlinghagen, M. (2008). Ehrenamtliche Arbeit und informelle Hilfe nach dem Renteneintritt [Volunteering after retirement. Evidence from German panel data]. In M. Erlinghagen, & K. Hank (Eds.), Produktives Altern und informelle Arbeit in modernen Gesellschaften (pp. 93–117). Wiesbaden, Germany: VS Verlag.
- Erlinghagen, M., & Hank, K. (2006). The participation of older Europeans in volunteer work. Ageing & Society, 26, 567–584.
- Hank, K. (2009). Societal determinants of productive aging: A multilevel analysis across 11 European countries. Working Paper, University of Mannheim.
- Hank, K., & Erlinghagen, M. (in press). Volunteering in 'old' Europe— Patterns, potentials, limitations. *Journal of Applied Gerontology*.
- Hank, K., & Stuck, S. (2008). Volunteer work, informal help, and care: Further evidence for 'Linked' productive activities at older ages. *Social Science Research*, 37, 1280–1291.
- Henkin, N., & Zapf, J. (2006–2007). How communities can promote civic engagement of people age 50-plus. *Generations*, 30, 72–77.
- Hong, S.-I., Morrow-Howell, N., Tang, F., & Hinterlong, J. (2009). Engaging older adults in volunteering—Conceptualizing and measuring institutional capacity. *Nonprofit and Voluntary Sector Quarterly*, 38, 200–219.
- Kalwij, A., & van Soest, A. (2005). Item non-response and alternative imputation procedures. In A. Börsch-Supan, & H. Jürges (Eds.), *The* survey of Health, Ageing and Retirement in Europe—Methodology (pp. 128–150). Mannheim, Germany: MEA.
- Kapteyn, A., Michaud, P.-C., Smith, J. P., & van Soest, A. (2006). Effects of attrition and non-response in the Health and Retirement Study. RAND Working Paper WR-407, Santa Monica.
- Kaskie, B., Imhof, S., Cavanaugh, J., & Culp, K. (2008). Civic engagement as a retirement role for aging Americans. *The Gerontologist*, 48, 368–377.
- Kim, J. E., & Moen, P. (2001). Moving into retirement: Preparations and transitions in late midlife. In M. E. Lachman (Ed.), *Handbook of midlife development* (pp. 498–527). New York: Wiley.
- Kohli, M., Hank, K., & Künemund, M. (in press). The social connectedness of older Europeans: Patterns, dynamics and contexts. *Journal of European Social Policy*, 19.
- Li, Y. (2007). Recovering from spousal bereavement in later life: Does volunteer participation play a role? *Journal of Gerontology: Social Sci*ences, 62B, S257–S266.
- Li, Y., & Ferraro, K. F. (2006). Volunteering in middle and later life: Is health a benefit, barrier or both? *Social Forces*, 85, 497–519.
- Morrow-Howell, N., Hinterlong, J., & Sherraden, M. (Eds.). (2001). Productive aging: Concepts and challenges. Baltimore: Johns Hopkins University Press.
- Morrow-Howell, N., & Mui, A. (1989). Elderly volunteers: Reasons for initiating and terminating service. *Journal of Gerontological Social* Work, 13, 21–34.
- Musick, M. A., & Wilson, J. (2008). Volunteers. A social profile. Bloomington, IN: Indiana University Press.
- Mutchler, J. E., Burr, J. A., & Caro, F. G. (2003). From paid worker to volunteer: Leaving the paid labor force and volunteering in later life. *Social Forces*, 81, 1267–1293.
- Pichler, F., & Wallace, C. (2007). Patterns of formal and informal social capital in Europe. *European Sociological Review*, 23, 423–435.
- Rotolo, T. (2000). A time to join, a time to quit: The influence of life cycle transitions on voluntary association membership. *Social Forces*, 78, 1133–1161.
- Rotolo, T., & Wilson, J. (2006). Substitute or complement? Spousal influence on volunteering. *Journal of Marriage and Family*, 68, 305-319.
- Salamon, L. M., & Anheier, H. K. (1998). Social origins of civil society: Explaining the nonprofit sector cross-nationally. VOLUNTAS, 9, 213–248.
- Schröder, M. (2008). Attrition. In A. Börsch-Supan, A. Brugiavini, H. Jürges, A. Kapteyn, J. Mackenbach, J. Siegrist, & G. Weber (Eds.), *Health, Ageing and Retirement in Europe (2004-2007)— Starting the longitudinal dimension* (pp. 325–330). Mannheim, Germany: MEA.

- Sirven, N., & Debrand, T. (2008). Social participation and healthy ageing: An international comparison using SHARE data. Social Science & Medicine, 67, 2017–2026.
- Tang, F. (2006). What resources are needed for volunteerism? A life course perspective. *Journal of Applied Gerontology*, 25, 375–390.
- Thoits, P. A., & Hewitt, L. N. (2001). Volunteer work and well-being, Journal of Health and Social Behavior, 42, 115–131.
- Utz, R. L., Carr, D., Nesse, R., & Wortman, C. (2002). The effect of widowhood on older adults' social participation: An evaluation of activity, disengagement, and continuity theories. *The Gerontologist*, 42, 522-533.
- van de Ven, W. P. M. M., & van Pragg, B. M. S. (1981). The demand for deductibles in private health insurance: A probit model with sample selection. *Journal of Econometrics*, 17, 229–252.

- Van Willigen, M. (2000). Differential benefits of volunteering across the life course. Journal of Gerontology: Social Sciences, 55B, S308–S318.
- Warburton, J., Paynter, J., & Petriwskyj, A. (2007). Volunteering as a productive aging activity: Incentives and barriers to volunteering by Australian seniors. *Journal of Applied Gerontology*, 26, 333–354.
- Wendorf, C. A. (2004). Primer on multiple regression coding: Common forms and the additional case of repeated contrasts. Understanding Statistics, 3, 47–57.
- Wilson, J., & Musick, M. A. (1999). Attachment to volunteering. Sociological Forum, 14, 243–272.

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