Participation in Voluntary Organizations and Volunteer Work as a Compensation for the Absence of Work or Partnership? Evidence From Two German Samples of Younger and Older Adults

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Objectives. We tested whether formal volunteering, in terms of its associations with mental health, compensates for the absence of major work and family roles among older adults or rather complements such roles among both younger and older adults.

Method. Two cross-sectional samples of younger (aged 18–42 years, $N = 2,346$) and older (aged 56–75 years, $N = 1,422$) German adults were used. We regressed mental health indicators on control variables, 2 indicators of formal volunteering (participation in voluntary organizations and volunteer work), and their interactions with employment/partnership status.

Results. Participation in voluntary organizations was associated with higher positive affect, higher life satisfaction, and fewer depressive symptoms in younger adults. In older adults, it was related to higher life satisfaction only among working individuals, although the difference from nonworking individuals was not significant. Volunteer work was associated with higher positive affect in both age groups. In younger adults, it had no relation to life satisfaction and depressive symptoms. In older adults, it was related to higher life satisfaction among nonworking individuals and to fewer depressive symptoms among those without a steady partner.

Discussion. Volunteer work but not participation in voluntary organizations yielded compensatory effects on mental health among older adults.

Key Words: Life course—Mental health—Social roles—Volunteering.

There is a general consensus that formal volunteering (i.e., uncoerced and unpaid individual activity that is structured by an organization and directed toward a community concern; Morrow-Howell, 2010) is beneficial not only for the society but also for the volunteers themselves. In particular, several longitudinal studies have shown that formal volunteering has salutary effects on physical and mental health (Li & Ferraro, 2005; Oman, Thoresen, & McMahon, 1999; Thoits & Hewitt, 2001). Researchers have also started to document the moderating factors in these relationships, such as age, availability of other social roles and activities, and economic and psychosocial resources (Greenfield & Marks, 2004; Hao, 2008; Morrow-Howell, Hinterlong, Rozario, & Tang, 2003; Musick & Wilson, 2003; Piliavin, 2010; Sugihara, Sugisawa, Shibata, & Harada, 2008; Van Willigen, 2000). Indeed, a better understanding of differential effects of volunteering is needed to maximize positive outcomes via targeted recruitment (Morrow-Howell, 2010).

Formal volunteering is generally believed to be more beneficial for older than for younger or middle-aged adults (Dovidio, Piliavin, Schroeder, & Penner, 2006; Wilson, 2000). One possible reason for this may be the need for older adults to compensate for major age-related role losses, such as retirement from work or death of a spouse (Baltes, 1997; Heckhausen, Wrosch, & Schulz, 2010), whereby formal volunteering provides opportunities for social contact and activities that may function as a compensation (Dovidio et al., 2006). Nonworking younger adults (students, homemakers, and unemployed) are usually expected (and want) to enter or return to employment, just as younger individuals without a steady partner, be they single or divorced, are supposed (and want) to find a mate (Havighurst, 1972; Heckhausen et al., 2010). Thus, formal volunteering can hardly be regarded as a substitution for major work and family roles in young and middle adulthood, neither by the society nor by the individuals themselves. In contrast, older adults have fewer opportunities to reenter the labor market if they do not work or to find a new partner if they have none than younger adults experiencing similar role losses. Consequently, mental health benefits of formal volunteering may be greater in older than in younger adults and especially in those older adults who do not work or do not have a steady partner or a spouse (vs. those who do).

On the other hand, combining volunteering with work and family roles may have its own benefits. Given that volunteers...
are most often recruited through the network of relatives, friends, and acquaintances (Verba, Schlozman, & Brady, 1995; Wilson, 2000), employed or married individuals are more likely to volunteer and, in particular, to volunteer together with someone they know and like, which may bring additional gratification. Moreover, employed individuals, especially those in high-status complex jobs, may be more effective as volunteers because they possess the organizational and communication skills important for success in both paid and unpaid work (Verba et al., 1995; Wilson, 2000). These examples illustrate how different social roles may overlap and how the enactment of one of them may facilitate the enactment of others. According to role accumulation theory (Sieber, 1974; Thoits, 1983), multiple social roles enable the accumulation of privileges and resources, increase overall social status security, and serve personality enrichment. As multiple roles are usually not independent, they do not necessarily require the separate investment of time and other resources, so that the benefits of performing them outweigh possible drawbacks of role strain and role conflict. As a corollary, the more roles an individual undertakes, the greater the gain in well-being. From this perspective, formal volunteering complements major work and family roles rather than compensates for their absence, that is, its positive effects on mental health may be more pronounced in those working (vs. those not working) or in those with a steady partner (vs. those without one), irrespective of age.

Pertinent empirical evidence is mixed. Some studies did show compensatory effects of formal volunteering on mental health with respect to major role-identity absences in older adults (Greenfield & Marks, 2004; Piliavin, 2010), whereas other studies provided support for role accumulation theory at all ages (Adelmann, 1994; Hao, 2008; Moen, Dempster-McClain, & Williams, 1992). Moreover, Sugihara and colleagues (2008) reported both compensatory and complementary effects of formal volunteering at an older age, whereas Morrow-Howell and colleagues (2003) found neither. Finally, few researchers who actually compared younger and older adults reported age differences in the expected direction but found no evidence that the stronger effects of formal volunteering on mental health in older adults were due to age-related role losses (Musick & Wilson, 2003; Van Willigen, 2000). These authors offered other explanations of the age differences, such as higher altruistic motivation, more discretionary nature of volunteering, and involvement in more rewarding (e.g., church-related) types of volunteering among older adults in comparison with younger individuals.

Previous research has typically considered either age or social roles, such as work and partnership, but not both, as potential moderators of the effects of formal volunteering on mental health. Moreover, relevant data come primarily from U.S. samples; evidence from other countries with fairly high volunteering rates, such as Germany, is lacking. The present study aimed to fill this gap: We investigated how the associations between formal volunteering and mental health depended on employment and partnership status in two cross-sectional samples of German adults aged 18–42 years and 56–75 years.

According to the German Microcensus, in 2009, labor force participation (i.e., the percentage of employed and job-seeking unemployed individuals in the population) among German adults aged 55–64 years amounted to 60.7% (52.7% among women) in comparison with 3.9% (2.6% among women) in those aged 65 years and older (i.e., beyond the statutory retirement age; Statistisches Bundesamt Deutschland, 2011). These figures show that the productive potential of the young-old is underused in the German labor market even among those younger than 65 years, which is at odds with the widely acknowledged need to foster active aging (Pavlova & Silbereisen, 2012; World Health Organization, 2002). Furthermore, in 2009, 28.7% of German adults aged 55–74 years were single, divorced, or widowed (34.3% among women; Statistisches Bundesamt Deutschland, 2011), thereby forming a substantial part of the population. Concerning rates of self-reported formal volunteering (operationalized in the German Survey on Volunteering [Freiwilligensurvey] as being a member of a voluntary organization and doing volunteer work for this organization; Gensicke & Geiss, 2010), within the past decade, they stabilized at 34–36% of the entire population older than 14 years, and among those aged 55–74 years, there was a visible increase from 30.5% in 1999 to 34.5% in 2009.

Given these numbers, it is tempting to think of formal volunteering in this age group (i.e., the young-old) as a possible compensation for a rather early exit from the labor force and as a means of maintaining social integration among unpartnered individuals, whereas for young and middle-aged adults, similar role losses are not irreversible and therefore cannot be truly compensated by formal volunteering (Baltes, 1997; Greenfield & Marks, 2004; Heckhausen et al., 2010; Piliavin, 2010). However, according to role accumulation theory (Adelmann, 1994; Hao, 2008; Moen et al., 1992; Sieber, 1974; Thoits, 1983), those who are better integrated in social life (i.e., enact multiple roles) may gain more from formal volunteering, irrespective of age. Hence, we tested the following alternative hypotheses.

**Hypothesis 1**

Formal volunteering has a compensatory function in older adults.

**Hypothesis 1a.**—At age 18–42 years, positive associations between formal volunteering and mental health will not depend on employment and partnership status.

**Hypothesis 1b.**—At age 56–75 years, positive associations between formal volunteering and mental health will be most pronounced in those not working or without a partner.
Hypothesis 2
Formal volunteering has a complementary function at all ages.

Hypothesis 2a.—At age 18–42 years, positive associations between formal volunteering and mental health will be most pronounced in those working and in those with a partner.

Hypothesis 2b.—At age 56–75 years, positive associations between formal volunteering and mental health will be most pronounced in those working and in those with a partner.

As formal volunteering, by definition, implies doing unpaid work on behalf of an organization, we considered two indicators of formal volunteering that represent different sources of benefits for the volunteer: active participation in voluntary organizations, which may provide status, social contact, and support (“social gratifications”; Verba et al., 1995) and volunteer work itself, which may satisfy one’s altruistic motives (“civic gratifications”; Verba et al., 1995) and give a sense of “mattering” (Owens, 2006; Thoits & Hewitt, 2001). All these benefits are important for mental health and may therefore account for the salutary effects of formal volunteering (Dovidio et al., 2006; Morrow-Howell, 2010). Separate assessment of participation in voluntary organizations and volunteer work is possible as some voluntary organizations, such as sport clubs, exist only to benefit their own members, who attend meetings and interact with others regularly, thereby enjoying social gratifications of organizational involvement without doing actual work for the wider community. At the same time, some types of volunteer work, such as at a hospice, do not involve rewarding social interactions and may only yield civic gratifications (Thoits & Hewitt, 2001; Verba et al., 1995). Concerning outcome variables, we used three indicators of mental health and well-being: life satisfaction, positive affect, and depressive symptoms.

Method
Participants and Procedure
The present study was based on the secondary analysis of two cross-sectional surveys covering 16–42 and 56–75 years of age from the Jena Study on Social Change and Human Development (Silbereisen et al., 2006). These surveys, which investigated individual responses to social change, focused originally on the growing uncertainty in the domains of work, family, and leisure and its implications for psychosocial adjustment at different ages. The method of probability sampling was identical in both cases: Data were collected in four German federal states, two representing the East (Mecklenburg-Western Pomerania and Thuringia) and two representing the West (Baden-Württemberg and Schleswig-Holstein). Sampling points were selected at random from the stratified area sample provided by the Association of German Market and Social Research Institutes (ADM). Within each sampling point, target households were identified using a random route technique. The interviewers (trained personnel of a field research agency) made up to four attempts to approach each household to find out whether an eligible individual was available for interview. Standardized face-to-face interviews lasting about 1–1.5 hr were conducted in German. The interviews slightly differed between the two surveys but contained many identical measures.

The younger sample was surveyed in October to December 2005 (response rate 77%). In comparison with the German Microcensus 2004, unemployed individuals were slightly overrepresented, whereas single individuals and foreigners were underrepresented; otherwise, this sample was fairly representative of the same age population of respective federal states (Reitzle, 2008). The older sample was surveyed in July to August 2009 (response rate 53%). In comparison with the German Microcensus 2008 (Forschungsdatenzzentrum des Thüringer Landesamtes für Statistik, 2011), relatively older women and younger men, as well as better educated and nonmarried individuals, were somewhat overrepresented in this sample. From both samples, we excluded the participants with missing data on sociodemographic variables and the indicators of formal volunteering (110 cases in the younger and 86 cases in the older sample, respectively). Minors were also excluded from the younger sample. Resulting sample sizes were \( N_{\text{younger}} = 2,346, N_{\text{older}} = 1,422 \).

Measures
All measures described subsequently were identical in both samples unless specified otherwise. Participation in voluntary organizations (referred to as simply “participation” throughout Method and Results) was assessed with one item: “I belong to a club, church fellowship, or other initiative where I can make a contribution or where I am needed” (1 = does not apply and 7 = fully applies). As a Likert scale, this item captured both membership of an organization and the degree of (emotional) commitment to it, but it did not explicitly ask whether the respondent had actually undertaken unpaid work for this organization. In the younger sample, an additional response option (0 = is not applicable to me) was used by many respondents (n = 376). To ensure comparability between the samples, we z-standardized scores on this item within each sample.

Volunteer work was assessed with two items (adopted from Andolina, Keeter, Zukin, & Jenkins, 2003): “Have you ever spent time participating in any community service or volunteer activity? By volunteer activity, I mean actually working in some way to help others for no pay” (yes/no). If the answer was affirmative, participants were asked: “Was this within the last 12 months?” (yes/no). From this, we created a binary indicator of volunteer work within the past 12 months (0 = no and 1 = yes). As follows from the item wording, it was not explicitly specified whether the activity in question...
was a personal endeavor or a group initiative. However, the terms “community service” (gemeinnützige Arbeit) and “volunteer activity” (Ehrenamt) in their most common usage do not cover giving informal help to friends and neighbors; therefore, our measure of volunteer work refers to formal volunteering, although not necessarily in conjunction with a permanent membership of an organization. Participation in voluntary organizations and volunteer work were moderately intercorrelated (0.37 in the younger sample and 0.48 in the older sample), which testified to their distinctness.

For the purposes of regression analyses, employment status was coded as a binary variable: working (employed full- or part-time; coded 0) and not working (coded 1). Partnership status also comprised two categories: with a steady partner (irrespective of legal status; coded 0) and without a steady partner (coded 1). More details on the sample composition in terms of employment and partnership status will follow in the Results section.

Concerning mental health indicators, general life satisfaction was measured with a single item (“How satisfied are you at present with your life altogether?”; 1 = very dissatisfied and 7 = very satisfied). The 10-item positive affect subscale of the Positive and Negative Affect Schedule (Watson, Clark, & Tellegen, 1988) rated how often participants had experienced certain positive emotions within the last month (e.g., “enthusiastic”; 1 = never and 7 = very often; \( \alpha = 0.90 \) in both samples). Depressive symptoms were measured with five items from the Brief Symptom Inventory (Derogatis, 1993) assessing prevalence of the symptoms in the last month (e.g., “feeling hopeless about the future”; 1 = not at all and 7 = very strongly; \( \alpha = 0.89 \) in both samples).

Among the control variables, we included region (0 = West and 1 = East) as the development of civil society still lags behind in the former East Germany with its communist past (Howard, 2003) and continuing economic difficulties (Gensicke, Olk, Reim, Schmithals, & Dienel, 2009), at least in terms of participation in voluntary organizations (64% in the East vs. 73% in the West as of year 2009; Gensicke & Geiss, 2010). In addition, we controlled for community size (1 = under 2,000 inhabitants and 7 = more than 500,000 inhabitants), gender (0 = male and 1 = female), school attainment (1 = 8 years of schooling, 2 = 10 years and 3 = 12–13 years), net income per person in the household in euro, age in years, and parenthood (0 = no own children and 1 = has own children). Finally, we used two health indicators. Physical handicap was measured with one item (“Are you permanently physically handicapped either since birth or due to an accident?”; 0 = no and 1 = yes). General health was assessed with four items from the German version of the SF-36 Health Survey (Bullinger & Kirchberger, 1998; e.g., “I am as healthy as anybody I know”; 1 = completely disagree and 7 = completely agree; \( \alpha = 0.83 \) and 0.69 in the younger and in the older sample, respectively; mean score was used).

### Analytical Approach

We regressed each mental health indicator on the predictor variables using a two-group design, whereby we estimated two models for each regression equation: one with all regression coefficients free to vary across the two samples and one with the coefficients of interest constrained to be equal in both samples. A chi-square difference test indicated whether the respective regression coefficients differed significantly between the younger and the older samples. The predictors were all the control variables, employment and partnership status, participation (z-standardized), volunteer work, and selected interactions among these variables. Namely, we tested the hypothesized compensatory versus complementary effects with respect to employment and partnership status by estimating the two-way interactions between participation/volunteer work and employment/partnership status.

To avoid small cell sizes where interactions among multiple categorical variables were involved, we tested interactions with employment and partnership status separately. Given the large number of analyses (in particular, we tested 24 interaction effects), we set the alpha level for regression coefficients to \( p < .01 \). We used a hierarchical approach to obtain \( R^2 \) change for the models with main effects only and with interaction effects added. Where significant interactions emerged, we did not consider the main effects of participation and volunteer work from the first step but calculated their simple effects at different levels of moderator variables instead (see Aiken & West, 1991; Edwards, 2009). Analyses were conducted using Mplus v.6 (Muthén & Muthén, 2010), wherein missing values on dependent variables and covariates (income and general health) were handled with the full information maximum likelihood algorithm. To compensate for a lack of multivariate normality, we used logged scores on income and obtained bootstrapped standard errors for all regression coefficients and simple effects.

### Results

#### Descriptive Statistics

Descriptive statistics for the study variables are given in Table 1. In comparison with the younger sample, participants from the older sample were more likely to live in larger communities, reported lower school attainment and higher income, were more likely to have children and less likely to be employed, reported more often to be physically handicapped, scored lower on self-reported general health, and reported slightly higher life satisfaction and slightly lower positive affect (all differences significant at \( p < .001 \)). Concerning the prevalence of participation and volunteer work, it was higher in the older than in the younger sample (\( p < .001 \)). In both samples, our global measures of formal volunteering yielded somewhat lower prevalence rates than those reported by the German Survey on Volunteering (Gensicke & Geiss, 2010), which employed more inclusive and differentiated indicators.
The composition of the two samples in terms of age and employment/partnership status is presented in Table 2. It shows that the nonworking category was largely composed of students in the youngest age group (18–25 years), replaced by the unemployed and homemakers at age 26–42 years and by retired individuals in the older sample (age 56–75 years). The high number of nonworking individuals in the younger sample is characteristic of the year 2005, reflecting the high unemployment rates (11.6% at age 20–40 years) and the relatively low labor force participation in this age group (81.1%; Statistisches Bundesamt Deutschland, 2011). Regarding those without a steady partner, never married individuals prevailed in this category at age 18–34 years; from age 35 years, those who were divorced became more visible; and at age 66–75 years, widowed individuals formed the majority. Because of these age differences, we could not use the subcategories of employment and partnership status in the regression analyses without losing the comparability of the samples and compromising power of the analyses.

Bivariate correlations between the study variables (see Supplementary Material 1) showed that sociodemographic indicators were weakly related to participation and volunteer work, but the associations were in the expected directions. For instance, in both samples, participation and volunteer work were related to higher school attainment, and West Germans reported higher levels of participation than East Germans. Not working and not having a steady partner were unrelated or weakly negatively related to participation and volunteer work. As expected, correlations of participation and volunteer work with the mental health indicators were positive (negative for depressive symptoms), although small in size.

### Findings for Life Satisfaction

Regression analyses for life satisfaction are presented in Table 3, which shows unstandardized regression coefficients. In the model with main effects (see Table 3, Model 1), after sociodemographic variables and health indicators had been controlled for, only participation, and only in the younger sample, was significantly positively associated with life satisfaction. However, before interpreting this effect, we had to consider possible interactions with employment and partnership status (Aiken & West, 1991; Edwards, 2009). Here, our analyses yielded different patterns of findings for the two indicators of formal volunteering.

With regard to participation in voluntary organizations, its interaction with employment status was only marginally significant in the older sample (see Table 3, Model 2). More importantly, the first-order effect of participation (showing its effect at zero level of the moderator, i.e., in working individuals, coded 0 on employment status; Aiken & West, 1991) became significant in this model. This effect implied that, if anything, participation was positively associated with life satisfaction among older working individuals, which pointed at a possible complementary function of participation.
with respect to work. However, no such trend was observed in the younger sample, where participation had clearly only a main effect (see Table 3, Models 1 and 2). Thus, no evidence for compensatory effects of participation was obtained, disconfirming Hypothesis 1, whereas Hypothesis 2, which posited complementary effects, was partially supported in older adults.

A different picture emerged for volunteer work. In the older but not in the younger sample, its interaction with employment status was significant (see Table 3, Model 2), which is illustrated by Figure 1. At age 18–42 years, volunteer work had no significant relation to life satisfaction, irrespective of employment status. In contrast, at age 56–75 years, volunteer work was significantly associated with higher life satisfaction among nonworking, but not among working, individuals. Moreover, we found that this interaction effect differed significantly between the younger and the older samples, $\Delta \chi^2(1) = 10.11, p < .01$. These results were very much in line with Hypothesis 1, suggesting that volunteer work had a compensatory function with respect to employment status in older, but not in younger, adults. The alternative Hypothesis 2, positing complementary effects in both age groups, was not supported.

The two-way interactions with partnership status were not significant nor were they associated with significant $R^2$ change in any of the samples (see Table 3, Model 3). Thus, we found neither compensatory (Hypothesis 1) nor complementary (Hypothesis 2) effects of participation and volunteer work on life satisfaction with regard to partnership status.

### Findings for Positive Affect

Regression analyses for positive affect are shown in Table 4. In the model with main effects (see Table 4, Model 1), both participation in voluntary organizations and volunteer work were significantly related to higher positive affect in the younger sample, whereas in the older sample, only volunteer work had a significant positive effect. The two-way interactions with employment status were not associated with significant $R^2$ change (see Table 4, Model 2), whereas the two-way interactions with partnership status yielded significant $R^2$ change in the older sample (see Table 4, Model 3). However, none of the single interaction effects was significant. Thus, we obtained only main effects of participation in voluntary organizations and volunteer work (see Table 4, Model 1), neither of which differed significantly between the samples: $\Delta \chi^2(1) = 1.12, ns$, for participation and $\Delta \chi^2(1) = 0.06, ns$, for volunteer work. From this, we concluded that, in younger and older adults alike, participation and volunteer work were associated with higher positive affect, but they had neither compensatory (Hypothesis 1) nor complementary (Hypothesis 2) effects with respect to employment and partnership status.

### Findings for Depressive Symptoms

Regression analyses for depressive symptoms are shown in Table 5. In the model with main effects (see Table 5, Model 1), participation in voluntary organizations had a significant negative effect on depressive symptoms in the younger sample, whereas volunteer work had a significant negative effect in the older sample. None of the interaction

### Table 3. Regression Results for Life Satisfaction

<table>
<thead>
<tr>
<th>Predictors</th>
<th>Model 1</th>
<th>Model 2</th>
<th>Model 3</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Age 18–42 years</td>
<td>Age 56–75 years</td>
<td>Age 18–42 years</td>
</tr>
<tr>
<td>East Germany</td>
<td>$-0.310^{***}$ (0.055)</td>
<td>$-0.182$ (0.073)</td>
<td>$-0.312^{***}$ (0.055)</td>
</tr>
<tr>
<td>Community size</td>
<td>$-0.015$ (0.016)</td>
<td>$-0.009$ (0.019)</td>
<td>$-0.014$ (0.016)</td>
</tr>
<tr>
<td>Female</td>
<td>$0.129$ (0.053)</td>
<td>$0.313^{***}$ (0.062)</td>
<td>$0.126$ (0.053)</td>
</tr>
<tr>
<td>School attainment</td>
<td>$0.293^{***}$ (0.040)</td>
<td>$0.013$ (0.040)</td>
<td>$0.291^{***}$ (0.040)</td>
</tr>
<tr>
<td>Income (logged)</td>
<td>$0.338^{***}$ (0.066)</td>
<td>$0.446^{***}$ (0.085)</td>
<td>$0.338^{***}$ (0.066)</td>
</tr>
<tr>
<td>Age</td>
<td>$-0.034^{***}$ (0.005)</td>
<td>$0.032^{***}$ (0.007)</td>
<td>$-0.034^{***}$ (0.005)</td>
</tr>
<tr>
<td>Has children</td>
<td>$0.172$ (0.077)</td>
<td>$0.141$ (0.094)</td>
<td>$0.171$ (0.077)</td>
</tr>
<tr>
<td>Physical handicap</td>
<td>$-0.138$ (0.171)</td>
<td>$0.002$ (0.128)</td>
<td>$-0.132$ (0.170)</td>
</tr>
<tr>
<td>General health</td>
<td>$0.208^{***}$ (0.024)</td>
<td>$0.270^{***}$ (0.027)</td>
<td>$0.209^{***}$ (0.024)</td>
</tr>
<tr>
<td>Not working</td>
<td>$-0.524^{***}$ (0.072)</td>
<td>$-0.038$ (0.094)</td>
<td>$-0.484^{***}$ (0.078)</td>
</tr>
<tr>
<td>No steady partner</td>
<td>$-0.429^{***}$ (0.063)</td>
<td>$-0.587^{***}$ (0.069)</td>
<td>$-0.429^{***}$ (0.063)</td>
</tr>
<tr>
<td>Participation in voluntary organizations (P)</td>
<td>$0.081^{**}$ (0.027)</td>
<td>$0.076$ (0.038)</td>
<td>$0.058$ (0.033)</td>
</tr>
<tr>
<td>Volunteer work (V)</td>
<td>$0.047$ (0.066)</td>
<td>$0.161$ (0.082)</td>
<td>$0.130$ (0.077)</td>
</tr>
<tr>
<td>P × Not working</td>
<td>$0.055$ (0.058)</td>
<td>$-0.219$ (0.088)</td>
<td>$0.193$ (0.151)</td>
</tr>
<tr>
<td>V × Not working</td>
<td>$0.167^{***}$ (0.001)</td>
<td>$0.207^{***}$ (0.006)</td>
<td>$0.167^{***}$ (0.001)</td>
</tr>
</tbody>
</table>

Note. Cells represent $B$ (SE).

**p < .01. ***p < .001.
effects involving participation was significant (see Table 5, Models 2 and 3), which suggested that participation had neither compensatory (Hypothesis 1) nor complementary (Hypothesis 2) effects on depressive symptoms with respect to employment and partnership status. However, it had a negative main effect on depressive symptoms in the younger sample (see Table 5, Model 1), which was significantly stronger than in the older sample: Δχ²(1) = 4.86, p < .05. Thus, participation was only related to fewer depressive symptoms in younger adults.

With regard to volunteer work, no significant interaction was found with employment status (see Table 5, Model 2), but a significant interaction with partnership status emerged in the older sample (see Table 5, Model 3). This interaction is illustrated by Figure 2. At age 18–42 years, volunteer work was not significantly related to depressive symptoms, irrespective of partnership status, whereas at age 56–75 years, it was significantly related to fewer depressive symptoms but only among individuals without a steady partner. It should be noted, though, that the interaction between volunteer work and partnership status (see Table 5, Model 3) did not differ significantly between the younger and the older samples, Δχ²(1) = 2.10, ns. Thus, for volunteer work, Hypothesis 1, which posited compensatory effects of formal volunteering in older adults, was partially supported with respect to partnership status. No evidence for complementary effects of volunteer work (Hypothesis 2) was obtained. Concerning employment status, neither Hypothesis 1 nor Hypothesis 2 was supported.

**Discussion**

The present study comparing two independent samples of German adults (aged 18–42 years and 56–75 years) contributed to the mounting evidence on the benefits of formal volunteering for the volunteers themselves. We distinguished between participation in voluntary organizations and volunteer work and investigated how their associations with mental health (i.e., life satisfaction, positive affect, and depressive symptoms) varied depending on the employment and partnership status. Moreover, our study was one of the few that directly tested commonly held assumptions about the especially salutary effects of formal volunteering in older adults by comparing age groups (cf. Musick & Wilson, 2003; Van Willigen, 2000).

We juxtaposed two views on the interplay between formal volunteering and other social roles at different ages. According to the life-span psychological perspective (Baltes, 1997; Heckhausen et al., 2010), formal volunteering may be most important for mental health at an older age, when there is a need to compensate for irrevocable losses of work and family roles (e.g., retirement and widowhood). Formal volunteering may thereby have compensatory effects on mental health among nonworking individuals and in those without a steady partner in older, but not in younger, adults. In contrast, proponents of role accumulation theory (Sieber, 1974; Thoits, 1983) would rather argue that formal volunteering has complementary effects (i.e., it is more beneficial for those who do work or have a steady partner) in all age groups, as enacting multiple social roles enables the accumulation of privileges and resources, provides status security, and serves personality enrichment.

Our findings yielded limited support for role accumulation theory. Only in one case did we find some indication that participation in voluntary organizations might have complementary effects as it was particularly related to higher life satisfaction in older working Germans. In comparison with their peers exiting the labor market, older Germans who are still in work are typically better qualified and have higher occupational status (Radl, 2007). For many of this group, participation in voluntary organizations may involve holding a leading position rather than ordinary membership; the very organizations in which they participate may be of high prestige. This would certainly be an example of role accumulation. Otherwise, participation in voluntary organizations...
had positive associations with mental health irrespective of employment and partnership status, that is, participation in voluntary organizations did not seem to have a compensatory role either. Its effects being sometimes stronger among younger adults may be explained by the higher responsiveness of younger individuals to the social gratifications of volunteering (cf. Omoto, Snyder, & Martino, 2000).

For volunteer work, a very different picture emerged, providing convincing evidence for its compensatory, rather than complementary, function in older German adults. Specifically, in the older sample, volunteer work was significantly associated with higher life satisfaction only among non-working individuals and with fewer depressive symptoms only among those without a steady partner (cf. Greenfield & Marks, 2004; Piliavin, 2010; Sugihara et al., 2008). In contrast,

<table>
<thead>
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<th>Predictors</th>
<th>Model 1 Age 18–42 years</th>
<th>Model 1 Age 56–75 years</th>
<th>Model 2 Age 18–42 years</th>
<th>Model 2 Age 56–75 years</th>
<th>Model 3 Age 18–42 years</th>
<th>Model 3 Age 56–75 years</th>
</tr>
</thead>
<tbody>
<tr>
<td>East Germany</td>
<td>−0.017 (0.037)</td>
<td>0.090 (0.052)</td>
<td>−0.015 (0.037)</td>
<td>0.089 (0.052)</td>
<td>−0.018 (0.037)</td>
<td>0.090 (0.052)</td>
</tr>
<tr>
<td>Community size</td>
<td>−0.018 (0.011)</td>
<td>−0.037 (0.017)</td>
<td>−0.018 (0.011)</td>
<td>−0.037 (0.017)</td>
<td>−0.018 (0.011)</td>
<td>−0.036 (0.016)</td>
</tr>
<tr>
<td>Female</td>
<td>0.098** (0.037)</td>
<td>0.066 (0.047)</td>
<td>0.100** (0.037)</td>
<td>0.066 (0.047)</td>
<td>0.098** (0.037)</td>
<td>0.057 (0.047)</td>
</tr>
<tr>
<td>School attainment</td>
<td>0.122*** (0.028)</td>
<td>0.050 (0.031)</td>
<td>0.123*** (0.027)</td>
<td>0.049 (0.032)</td>
<td>0.123*** (0.028)</td>
<td>0.050 (0.031)</td>
</tr>
<tr>
<td>Income (logged)</td>
<td>0.138*** (0.038)</td>
<td>0.204*** (0.057)</td>
<td>0.137*** (0.038)</td>
<td>0.204*** (0.057)</td>
<td>0.137*** (0.038)</td>
<td>0.200*** (0.057)</td>
</tr>
<tr>
<td>Age</td>
<td>−0.017*** (0.003)</td>
<td>−0.004 (0.005)</td>
<td>−0.012*** (0.003)</td>
<td>−0.004 (0.005)</td>
<td>−0.012*** (0.003)</td>
<td>−0.004 (0.005)</td>
</tr>
<tr>
<td>Has children</td>
<td>0.092 (0.050)</td>
<td>0.225** (0.079)</td>
<td>0.092 (0.050)</td>
<td>0.225** (0.079)</td>
<td>0.090 (0.050)</td>
<td>0.233** (0.078)</td>
</tr>
<tr>
<td>Physical handicap</td>
<td>0.231 (0.101)</td>
<td>0.066 (0.111)</td>
<td>0.226 (0.101)</td>
<td>0.068 (0.111)</td>
<td>0.234 (0.102)</td>
<td>0.069 (0.111)</td>
</tr>
<tr>
<td>General health</td>
<td>0.295*** (0.016)</td>
<td>0.289*** (0.020)</td>
<td>0.294*** (0.016)</td>
<td>0.289*** (0.020)</td>
<td>0.295*** (0.016)</td>
<td>0.289*** (0.020)</td>
</tr>
<tr>
<td>Not working</td>
<td>−0.180*** (0.044)</td>
<td>0.000 (0.063)</td>
<td>−0.210*** (0.048)</td>
<td>0.029 (0.074)</td>
<td>−0.180*** (0.044)</td>
<td>−0.001 (0.063)</td>
</tr>
<tr>
<td>No steady partner</td>
<td>−0.150*** (0.044)</td>
<td>−0.179** (0.053)</td>
<td>−0.149*** (0.044)</td>
<td>−0.178** (0.053)</td>
<td>−0.134** (0.047)</td>
<td>−0.217** (0.065)</td>
</tr>
<tr>
<td>Participation in voluntary organizations (P)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Volunteer work (V)</td>
<td>0.199*** (0.044)</td>
<td>0.217*** (0.057)</td>
<td>0.135 (0.057)</td>
<td>0.280** (0.107)</td>
<td>0.228*** (0.054)</td>
<td>0.179 (0.069)</td>
</tr>
<tr>
<td>P × Not working</td>
<td>−0.042 (0.039)</td>
<td>0.035 (0.061)</td>
<td>0.147 (0.093)</td>
<td>−0.081 (0.126)</td>
<td>−0.001 (0.041)</td>
<td>0.120 (0.058)</td>
</tr>
<tr>
<td>V × No steady partner</td>
<td>−0.096 (0.100)</td>
<td>0.149 (0.120)</td>
<td>−0.096 (0.100)</td>
<td>0.149 (0.120)</td>
<td>−0.096 (0.100)</td>
<td>0.149 (0.120)</td>
</tr>
</tbody>
</table>

| Total $R^2$                             | 0.233***                | 0.221***                | 0.233***                | 0.221***                | 0.223***                | 0.226***                |
| $R^2$ change                            | 0.000                   | 0.000                   | 0.000                   | 0.000                   | 0.000                   | 0.005**                 |

**Note.** Cells represent $B (SE)$.

**$p < .01$. ***$p < .001$.**
in the younger sample, volunteer work had no significant associations with life satisfaction and depressive symptoms, although the differences between the age groups were significant only for life satisfaction. In addition, volunteer work was related to higher positive affect in younger and older adults alike, irrespective of employment and partnership status.

Thus, the two interrelated indicators of formal volunteering were associated with remarkably different patterns of effects. Although there was some overlap in the wording of the two items, we reasoned that including them simultaneously as predictors in a regression equation should yield the unique effects of organizational involvement, with its presumed social gratifications, and volunteer work, which had more to do with civic gratifications (doing one’s duty, benefiting others; Verba et al., 1995). If participation in voluntary organizations had stronger effects on mental health, this could indicate that social gratifications matter more and vice versa. Seen in this way, our results suggest that civic gratifications are more important to older volunteers, who may be driven by community concerns and altruistic motives more than their younger counterparts (cf. Musick & Wilson, 2003; Omoto et al., 2000). Apart from that, nonworking older Germans may profit from volunteer work insofar as it satisfies their need to remain productive, especially given that they are bound to exit the labor force at age 65–67 years (the statutory retirement age) but are nevertheless under increasing pressure to maintain an active lifestyle and to contribute to the common good (Pavlova & Silbereisen, 2012; van Dyk & Lessenich, 2009).

In turn, older adults without a steady partner, be they single, divorced, or widowed, are faced with the prospect of remaining unpartnered for the rest of their lives (Heckhausen et al., 2010). This group may benefit from volunteer work particularly because it gives them a sense of “mattering,” that is, a feeling that one is needed and appreciated by other people (Owens, 2006; Thoits & Hewitt, 2001). Organizational involvement as such, despite its importance for the social integration of older adults, may be less effective in meeting such needs than volunteer work as a purposeful activity with a tangible output (cf. Thoits & Hewitt, 2001).

The differences that emerged across mental health indicators may also highlight different functions of formal volunteering (Dovidio et al., 2006; Morrow-Howell, 2010). For instance, satisfying the need to stay productive may enhance self-perceptions of well-being in the first place, which explains the link between volunteer work and life satisfaction, a predominantly cognitive evaluation of one’s life as a whole (Diener, 1994), in older nonworking individuals. In turn, a sense of “mattering” may buffer against depression (Owens, 2006), which accounts for the connection between volunteer work and reduced depressive symptoms in older individuals without a steady partner.

Limitations
Our study had its limitations. The data sets that we used were cross-sectional and contained only global measures of formal volunteering. Types of activities, time investment, and duration of commitment were not specified nor were particular features of the volunteer experience. To a larger extent, these topics are covered in the German Survey on Volunteering (Freiwilligensurvey; Gensicke & Geiss, 2010), which, however, does not include mental health indicators. We could have used the German Socio-Economic Panel, which has advantages of a panel survey, but its focus is neither on volunteering nor on psychological variables. Furthermore, as our study utilized cross-sectional data, causal inferences cannot be drawn. It is possible that depressed individuals abstain from volunteering, which would lead to volunteers reporting better mental health on average. However, concerning the moderator effects we found, reversing their direction would imply that only those depressed individuals who are older and have no steady partner (e.g., widowed) are less likely to volunteer, which would be difficult to interpret.
It does seem, therefore, that the pattern of our findings can be more parsimoniously explained via compensation than via self-selection. In previous studies, the longitudinal effects of formal volunteering on well-being have been established (Li & Ferraro, 2005; Thoits & Hewitt, 2001), which also supports the suggested direction of effects.

The fact that we compared two independent samples of different ages was both a strength and a potential limitation because the time of measurement also differed: The younger sample was surveyed in 2005, whereas the older sample was surveyed in 2009. The compensatory effect of volunteer work on life satisfaction among nonworking individuals that we found in the older sample could thus be attributed to the success of activation policies between 2005 and 2009, which especially encouraged formal volunteering in the older population (e.g., Bundesministerium für Familie, Senioren, Frauen und Jugend, 2009). However, as activation policies targeting young and middle-aged nonworking individuals primarily aim at their reemployment (Jacobi & Klueve, 2007), volunteering is not likely to gain prominence as an alternative to work in this group. Thus, the age differences we found should still hold even if both samples had been surveyed in 2009.

Conclusions
We presented evidence for the compensatory role of volunteer work (but not of participation in voluntary organizations) in older German adults. That is, we found the positive association between volunteer work and mental health to be stronger among older individuals who were not working or had no steady partner than among those working or with a steady partner. In young and middle-aged adults, such compensatory effects were not pronounced. Thus, volunteer recruitment programs in Germany should perhaps target older nonworking and unpartnered individuals in particular. Nevertheless, it should be borne in mind that younger individuals also derive emotional benefits from formal volunteering.

Our study highlights individual differences in the benefits of volunteering for the volunteers themselves. In the future, researchers should direct more attention to the role of macro-level variables, such as cultural and regional contexts, in these associations, as well as to microlevel variations in the volunteer experience (e.g., program characteristics), which may be decisive for the outcomes of volunteering (Morrow-Howell, 2010).

Funding
This work was supported by the German Research Foundation as a subproject of the Collaborative Research Centre 580 “Social Developments in Post-Socialist Societies: Discontinuity, Tradition, Structural Formation” (SFB580-04-C6 to R. K. S.) and by the Federal Programme “ProExzellenz” of the Free State of Thuringia (to M. K. P.).

Acknowledgments
The authors are grateful to Verona Christmas-Best for her helpful comments on the manuscript. Author contributions: M. K. Pavlova planned the study, conducted statistical analyses, and wrote the paper. R. K. Silbereisen helped to plan the study and supervised the preparation of the paper.

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References