Coping With Occupational Uncertainty and Formal Volunteering Across the Life Span

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Abstract

Common wisdom suggests that individuals confronted with occupational uncertainty (e.g., job insecurity and difficulties with career planning) may withdraw from volunteering. We argue that volunteering may be useful to workers in some career stages and that stage-appropriate coping with occupational uncertainty may increase individuals’ readiness to volunteer. In Study 1, we used cross-sectional and 1-year follow-up data from Germany that covered three age groups: 16–29 ($N_{T1} = 1,253, N_{T2} = 224$), 30–43 ($N_{T1} = 1,560, N_{T2} = 371$), and 56–75 ($N_{T1} = 518, N_{T2} = 215$). High engagement and low disengagement in coping with occupational uncertainty were associated with concurrent volunteering in the youngest group but not in the other groups. Over 1 year, high disengagement reduced the likelihood of starting volunteering in the youngest group and increased this likelihood in the oldest group. Study 2 used an independent, cross-sectional German sample that included two age groups: 20–29 ($N = 326$) and 30–40 ($N = 367$). Using a different measure of volunteering, Study 2 partly replicated the cross-sectional findings from Study 1. Results suggest that individual agency is a decisive link between occupational uncertainty and the readiness to volunteer, particularly among young labor market entrants.

Keywords: career stages; coping with work demands; formal volunteering; goal engagement and disengagement; job insecurity; work–life balance.
Occupational uncertainty has increased in the past decades. Global competition, economic and financial crises, and the resulting liberalization and deregulation of labor markets have contributed to job insecurity, career instability, and difficulties with long-term career planning in many industrialized societies (Hofäcker, Buchholz, & Blossfeld, 2010; Kalleberg, 2011). Occupational uncertainty is a stressor that potentially compromises the pursuit and attainment of major life goals and undermines subjective well-being (Hofäcker et al., 2010; Sverke & Hellgren, 2002). Furthermore, occupational uncertainty has been cited as a possible hurdle to civic participation, including volunteering (Carnoy, 2000; Voydanoff, 2007). This is alarming, because formal volunteering (i.e., unpaid, voluntary activities that are undertaken for community benefit under the auspices of an organization; Wilson, 2000) is a cornerstone of civil society with numerous benefits for the volunteers themselves.

Sociological research conducted in the U.S. has shown that individuals participate in voluntary organizations and volunteer more if they are well established in their work roles and pursue a stable and orderly career path (Brand & Burgard, 2008; Rotolo & Wilson, 2003; Wilensky, 1961; Wilson & Musick, 1997), even though part-time workers volunteer more than do full-time workers (Wilson, 2000). Rotolo and Wilson (2003) even stated, “Weaken the ties people have to the work world, and you run the risk of weakening attachment to civil society. Shift from a labor economy of job security and job continuity to a labor economy of contingent jobs, and attendance at meetings and volunteering are likely to decline” (p. 617).

However, this need not be the case, because the functions of formal volunteering in relation to paid work must also be considered. We suggest that the implications of occupational uncertainty for individuals’ readiness to volunteer depend on the usefulness of volunteering at their career stages and on their own agency (i.e., coping with occupational uncertainty). In support of our argument, we present findings from two independent studies that are based on cross-sectional and 1-year follow-up data from Germany.
Paid Work and Formal Volunteering Across the Life Span

In his life-span, life-space theory of career development, Super (1957; Super, Savickas, & Super, 1996) famously argued that individuals’ careers follow the same general pattern across the life span: growth (ca. ages 4–13), exploration (14–24), establishment (25–44), maintenance (45–65), and decline/disengagement (65+). Each career stage is defined more by its specific developmental tasks than it is by individuals’ age, because there is large variability in the particular tasks faced by individuals. Furthermore, the concept of life space acknowledges that the work role, although central to many individuals, is only one among their various interdependent roles, including those of a citizen and a “leisurite” (Super et al., 1996). The salience of different roles and their interrelations change with age. For example, early career workers may abandon some leisure pursuits to focus on career-related tasks, whereas retirees have to develop nonoccupational roles (Super et al., 1996).

Formal volunteering belongs to the domains of leisure (i.e., it is undertaken in one’s leisure time) and citizenship (i.e., it is undertaken for community benefit; Wilson, 2000). According to Super et al. (1996), these domains may become more important during late career stages. However, the relationships among worker, leisurite, and citizen roles across the life span have largely remained unexplored both in Super’s writings (Super, 1957; Super et al., 1996) and in the burgeoning literature on work–life interface (Voydanoff, 2007). In the following, we propose our view on the functions of formal volunteering at different career stages. As the literature that links paid work and volunteering has not used the construct of career stages, we rely on chronological age in referring to career stages.

For individuals in the exploration career stage (i.e., apprentices, students, and labor market entrants), formal volunteering may play a facilitative role in relation to paid work, as suggested by evidence from North America and Western Europe. First, participation in voluntary organizations and volunteering in early adulthood seems to predict later
occupational status and earnings, presumably because civic participation contributes to the acquisition of skills and social capital (Ruiter & De Graaf, 2009; Wilson & Musick, 2003). Another explanation is the “signaling” function of volunteering: In a competitive labor market, employers use information about volunteering experience as an indicator of desirable personal qualities, such as the capacity for teamwork, and they sort applicants with similar qualifications on that basis (Katz & Rosenberg, 2005). Second, young volunteers endorse instrumental motives, such as skill acquisition and career development, much more often than do their older counterparts (Gensicke & Geiss, 2010; Okun & Schultz, 2003). These “résumé padding” motives are typical in the U.S. and Canada, where higher education institutions and employers consider extracurricular activities in admission and hiring decisions (Hustinx, Handy, Cnaan, Brudney, Pessi, & Yamauchi, 2010). Anecdotal evidence suggests that this is increasingly the case in Germany, too.

At the establishment and maintenance career stages, formal volunteering may lose some of its importance for occupational advancement. As individuals acquire occupation-specific skills and experience (Super et al., 1996) and become less eager to learn new skills (Kanfer & Ackerman, 2004), skill acquisition through volunteering may be less attractive to workers (Gensicke & Geiss, 2010; Okun & Schultz, 2003). Furthermore, many workers become preoccupied with job security, especially in the maintenance stage, because they seek to preserve their achievements rather than to advance in their occupations (Kanfer & Ackerman, 2004; Super et al., 1996; see a meta-analysis by Kooij, De Lange, Jansen, Kanfer, & Dikkers, 2011). However, we are not aware of any studies that show that volunteering helps to retain a job. Of course, the accumulation of social capital may remain a useful function of civic participation, including volunteering (Ruiter & De Graaf, 2009).

Finally, at the disengagement career stage, formal volunteering may assume a new, compensatory function in relation to paid work. Research from the U.S. and Europe has
shown that retiring older adults are more likely to start volunteering than those continuing to work full-time, and those who already volunteer tend to give more hours upon retirement (Butrica, Johnson, & Zedlewski, 2009; Hank & Erlinghagen, 2010; Mutchler, Burr, & Caro, 2003). Findings from the U.S., Germany, and Japan suggest that nonworking older adults benefit from volunteering more than do their working counterparts (Greenfield & Marks, 2004; Pavlova & Silbereisen, 2012a; Sugihara, Sugisawa, Shibata, & Harada, 2008).

**Coping With Occupational Uncertainty and Formal Volunteering Across the Life Span**

Occupational uncertainty does not affect everyone in the same way. Individuals differ in their perceptions of occupational uncertainty, and its consequences depend on their reactions (Pinquart & Silbereisen, 2004; Silbereisen & Chen, 2010). Drawing on the motivational theory of life-span development (Heckhausen, Wrosch, & Schulz, 2010) and on the transactional stress theory (Lazarus & Folkman, 1984), Silbereisen and colleagues proposed that, when opportunities for pursuing work-related goals are available, the most adaptive response to occupational uncertainty is goal engagement (i.e., active and focused attempts to achieve a desirable goal; Heckhausen et al., 2010). In contrast, under severe constraints on work-related goal pursuit, disengagement (i.e., abandoning unattainable goals to reengage with feasible ones; Heckhausen et al., 2010) may be more adaptive. This argument fits the concept of career adaptability, which refers to individuals’ readiness to cope with various normative and non-normative work-related challenges (Savickas, 1997).

Studies from Germany showed that the effects of engagement and disengagement coping with occupational uncertainty on subjective well-being differed in expected ways, depending on factors such as labor market conditions and length of unemployment (Körner, Reitzle, & Silbereisen, 2012; Pinquart, Silbereisen, & Körner, 2009; Tomasik & Silbereisen, 2012). One study from the same research group found a weak negative association between perceived occupational uncertainty and participation in voluntary organizations and
volunteering but virtually no effects of goal engagement and disengagement in coping with occupational uncertainty in Germany (Silbereisen, Tomasik, & Grümer, 2008). This study did not explore the roles of age or career stage. However, as we argued above, the relationship between paid work and formal volunteering may vary across career stages. Moreover, blocked goals are more likely to occur in middle and late adulthood than in young adulthood. Hence, abilities to disengage from unachievable goals and to reengage with alternative goals improve and become more adaptive as individuals age (Heckhausen et al., 2010).

In the present article, we argue that not occupational uncertainty per se but the strategies that individuals employ to cope with it are decisive for their readiness to volunteer (cf. Lazarus & Folkman, 1984; Pinquart & Silbereisen, 2004; Silbereisen & Chen, 2010). Most importantly, we suggest that these coping strategies have different implications at different career stages (Super et al., 1996). If formal volunteering is useful at a given career stage, then employing a stage-appropriate strategy in coping with occupational uncertainty may foster the readiness to volunteer, otherwise volunteering may be hindered.

Which coping strategies may be considered adaptive, or appropriate, at different career stages? Generally, the work role is central to the majority of individuals, and work-related goals cannot be easily abandoned (Brandtstädter & Rothermund, 2002; Heckhausen et al., 2010; Super et al., 1996). Thus, goal engagement may be deemed an adaptive response to occupational uncertainty at all career stages except for the last, when goal disengagement becomes more appropriate (Super et al., 1996). As young individuals often find volunteering to be instrumental to their careers (Gensicke & Geiss, 2010; Hustinx et al., 2010; Okun & Schultz, 2003), occupational uncertainty need not lead to decreased formal volunteering at the exploration career stage if individuals employ engagement coping with this stressor.

Hypothesis 1. At the exploration stage, higher goal engagement in coping with occupational uncertainty is related to a greater likelihood of volunteering.
In contrast, formal volunteering seems to be less useful career-wise at the establishment and maintenance stages (Gensicke & Geiss, 2010; Okun & Schultz, 2003). Moreover, workers in these career stages are more preoccupied with job security (Kanfer & Ackerman, 2004; Kooij et al., 2011; Super et al., 1996). For them, engagement coping with occupational uncertainty is likely to result in focusing on the paid work domain.

**Hypothesis 2.** At the establishment and the maintenance stages, higher goal engagement is unrelated or negatively related to the likelihood of volunteering.

Furthermore, disengagement from work-related goals at the exploration and establishment career stages is clearly premature (Heckhausen et al., 2010; Super et al., 1996). It may be regarded as a maladaptive response, which indicates a lack of resources to deal with normative developmental tasks (Haase, Heckhausen, & Silbereisen, 2012). It may also hamper one’s ability to engage in other life domains, such as volunteering.

**Hypothesis 3.** At the exploration and the establishment stages, higher goal disengagement in coping with occupational uncertainty is related to a lower likelihood of volunteering.

Finally, at the disengagement career stage, disengagement from work-related goals is appropriate and may facilitate finding a substitution for the paid worker role (Heckhausen et al., 2010; Super et al., 1996). Formal volunteering may represent such a substitution (Greenfield & Marks, 2004; Mutchler et al., 2003; Pavlova & Silbereisen, 2012a).

**Hypothesis 4.** At the disengagement stage, higher goal disengagement in coping with occupational uncertainty is related to a greater likelihood of volunteering.

We do not have hypotheses about goal disengagement at the maintenance stage or about goal engagement at the disengagement stage, because engagement in resolving work-related issues is part of the definition of the maintenance stage. Once older workers disengage from work-related goals, they shift to the disengagement stage (Super et al., 1996).

**The Present Studies**
In Germany, strong employment and unemployment protection used to be a norm, which lowered the risks of job loss and related financial strain but led to the insider–outsider division on the labor market. Over the past decades, policy makers have fostered the creation of part-time, fixed-term, and low-paid jobs (Eichhorst & Marx, 2011). These jobs are taken by the least protected workers, including labor market entrants and older unemployed individuals (Hofäcker et al., 2010). In response to growing competitive pressures, labor flexibility (e.g., in terms of wages and working hours) has also increased in the core labor force (Eichhorst & Marx, 2011). Thus, growing occupational uncertainty has been an issue in Germany, although not to the same extent as in more liberal or less prosperous economies.

The purpose of the present studies was to examine the implications of coping with occupational uncertainty for formal volunteering at different ages, which were used as proxies for career stages. We considered formal volunteering, because the benefits of volunteering in terms of social capital, skills acquisition, and social visibility are amplified in the organizational context (Katz & Rosenberg, 2005; Ruiter & De Graaf, 2009). We did not differentiate between specific domains of volunteering. Prior studies that linked occupational uncertainty with civic participation also used a measure of overall participation (Rotolo & Wilson, 2003) or reported similar effects across different domains (Brand & Burgard, 2008).

Study 1 used cross-sectional and 1-year follow-up data from two samples (ages 16–43 and 56–75). We divided the participants into three age groups: 16–29, 30–43, and 56–75 years of age, representing the exploration, the establishment, and the maintenance or disengagement career stages, respectively. The age limits for the stages differed from those suggested by Super et al. (1996), because of the constraints of available data and because in Germany, labor market entry occurs later, whereas retirement occurs earlier than in the U.S.

Study 1 used a binary indicator of volunteer work in the past 12 months. We first conducted cross-sectional analyses to examine age differences in the links between coping
with occupational uncertainty and the likelihood of volunteering. We then used follow-up data to test whether employing one or another coping strategy predicted a change in volunteering. Again, we compared the effects across age groups. With a binary indicator, two change patterns were possible: starting versus remaining uninvolved in volunteering and dropping versus continuing volunteering. We used both as dependent variables in follow-up analyses, which enabled us to understand better the nature of effects. For example, a positive cross-sectional association between engagement coping with occupational uncertainty and volunteer work might be caused by highly engaged individuals being more likely to start volunteering, being less likely to stop volunteering once they have started, or both.

We controlled our analyses for a number of variables that are typically associated with volunteering (Wilson, 2000), such as socioeconomic, employment, family, and health statuses. We also included geographic region, since East and West Germany have different volunteering rates (Gensicke & Geiss, 2010). In cross-sectional analyses, we additionally controlled for dispositional optimism to rule out the possibility that the associations between coping and volunteering were due to dispositional causes (Pavlova & Silbereisen, 2013).

Study 2 was a partial replication of Study 1. It used a smaller, cross-sectional survey of young adults, whom we divided into two age groups (20–29 and 30–40) that represented the exploration and establishment career stages, respectively. The survey included measures of lifetime experience of and future intentions for civic participation, mainly volunteering. In contrast to the binary indicator used in Study 1, these measures referred to a wide range of domains and were continuous. However, lifetime experience of civic participation could not be regarded as an outcome of concurrent coping with occupational uncertainty. We therefore used future intentions as the dependent variable in Study 2. Future intentions have shown to be a potent predictor of actual volunteering, although there is no one-to-one correspondence between intentions and behavior (Greenslade & White, 2005; Okun & Sloane, 2002).
Study 1

Method

Participants and procedure. We used data from two samples. The first included participants aged 16–43, who were surveyed from October 2005 to January 2006 (T1) in four federal states of Germany. Within sampling points, which were selected at random from a stratified area sample, target households were identified with a random route technique. Altogether, 2,863 standardized face-to-face interviews lasting about an hour were conducted by a professional survey agency (response rate 77.0%). This sample was fairly representative of the same-age population of the respective federal states, although unemployed individuals were somewhat overrepresented, whereas singles and foreigners were underrepresented (Reitzle, 2008). The second sample included individuals aged 56–75, who were surveyed from July to August 2009 (T1). A similar procedure was used, but these interviews were computer assisted. Altogether, 1,508 individuals took part in the survey (response rate 52.9%). Older females and younger males, as well as better educated and unmarried individuals, were slightly overrepresented in this sample (Pavlova & Silbereisen, 2012b).

For both samples, a follow-up was scheduled one year after the first assessment. Because of the financial constraints of the project, the target sample size was only 600 individuals in each case. In effect, 606 individuals from the younger sample participated in the follow-up, which was conducted from January to March 2007 (T2). These participants were significantly more likely to come from economically richer regions, to be female, to be older, to have a lower household income per person, to have a steady partner, to have children, and to volunteer at T1 than were those who did not participate in the follow-up. There were no significant differences in school attainment, employment status, and general health. A follow-up of the older sample was conducted from July to September 2010 (T2); 602 participants were interviewed. Participants of the follow-up were significantly more
likely to come from economically richer regions, less likely to be employed, and healthier at T1 than were those who did not participate. No other significant differences emerged.

From both samples, we excluded the participants with missing values on major sociodemographic indicators (50 individuals, or 1.7% of the younger sample; seven individuals, or 1.3% of the older sample). We split the younger sample into two age groups (16–29 and 30–43). From the older sample, we selected those participants who responded to occupational uncertainty items. These were employed persons or nonworking individuals looking for a job, most of whom were younger than 65 (i.e., the legal retirement age in Germany). Table 1 shows the sample sizes and descriptive statistics for each age group.

[Table 1 about here]

**Measures.** At both measurements, *volunteer work* was assessed with two items, which were adopted from Andolina, Keeter, Zukin, and 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, then the second item asked: “Was this within the last 12 months?” (yes/no). The items referred to formal volunteering, because common uses of the German terms “community service” (gemeinnützige Arbeit) and “volunteer activity” (Ehrenamt) do not include informal helping activities. From these items, we created a binary indicator of volunteer work in the past 12 months (0 = no, 1 = yes). In follow-up analyses, we used a nominal variable that represented the four possible combinations of values at T1 and T2.

*Perceived growth in occupational uncertainty* at T1 was assessed with a 6-item retrospective scale to measure the changes in one’s occupational situation over the past five years (Tomasik & Silbereisen, 2009; e.g., “It has become more difficult to plan my career path”; 1 = does not apply at all; 7 = fully applies; $\alpha = .85–.89$ across the three age groups). Three of the six items were worded differently for employed, unemployed, and student
respondents (e.g., “The risk of losing my job / not finding a new job / not being able to complete my education has increased”). At T2, the same scale referred to the past 12 months. The validity of this indicator was supported by evidence that individuals who were from economically disadvantaged regions, lower educated, and not working scored higher on this scale (Tomasik & Silbereisen, 2009) and by its negative associations with subjective well-being (Körner et al., 2012; Pinquart et al., 2009; Tomasik & Silbereisen, 2012).

Both at T1 and T2, immediately after the occupational uncertainty items had been administered, participants reported on the strategies they used to deal with occupational uncertainty. Goal engagement (e.g., “I am also prepared to make a great effort in order to find a good solution”; $\alpha = .70–.79$) and goal disengagement (e.g., “If I can’t find a solution then I put the problem to the back of my mind”; $\alpha = .77–.84$) were each measured with three items on a 7-point rating scale (1 = does not apply at all; 7 = fully applies). No substantial mean change in goal engagement or disengagement occurred between T1 and T2. These scales were adapted from other research based on the motivational theory of life-span development (Heckhausen et al., 2010). Previous evidence supports the present scales’ validity as coping measures. Specifically, engagement and disengagement strategies correlate with the appraisals of a stressor in the expected directions (Tomasik, Silbereisen, & Pinquart, 2010). Moreover, engagement strategies are generally related to higher subjective well-being, but under unfavorable labor market conditions, disengagement also yields positive associations with well-being (Körner et al., 2012; Tomasik & Silbereisen, 2012).

Sociodemographic indicators included region (0 = West Germany; 1 = East Germany), community size (1 = less than 2,000 inhabitants; 7 = more than 500,000 inhabitants), gender (0 = male; 1 = female), school attainment (8 years, 10 years, and 12–13 years of schooling, dummy coded), net household income per person in Euros, employment status (0 = nonworking; 1 = employed), partnership status (0 = no steady partner; 1 = steady
partner, irrespective of marital status), and parenthood (0 = no biological children; 1 = biological children). *General health* was assessed with four items from the German version of the SF-36 Health Survey (e.g., “I am as healthy as anybody I know”; 1 = completely disagree; 7 = completely agree; $\alpha = .69–.83$). *Dispositional optimism* was measured with a German version of the Life Orientation Test (Wieland-Eckelmann & Carver, 1990). This test included eight items (e.g., “In uncertain times, I usually expect the best;” 1 = does not apply at all; 7 = fully applies; $\alpha = .68–.75$).

**Statistical analyses.** To test our hypotheses cross-sectionally, we conducted a series of binary logistic regressions, whereby volunteer work in the past 12 months was regressed on all control variables, including perceived growth in occupational uncertainty, and on coping strategies, whose effects were tested in separate equations. As we were primarily interested in age differences in the effects of coping strategies, measurement error, which reduces the power to detect moderation effects, could represent a problem (Edwards, 2009). We therefore used a latent variable approach to model coping strategies. We tested for age differences using a multiple group analysis.

To test our hypotheses with the follow-up data, we conducted a multiple-group multinominal logistic regression analysis, whereby the patterns of change in volunteer work from T1 to T2 were predicted from the control variables, from the T1 scores on the strategies used to cope with occupational uncertainty, and from the change in coping strategies between T1 and T2. Again, we modeled coping strategies as latent variables; in particular, we used latent difference scores to model change from T1 to T2. A latent difference score represents the change between two time points as a separate latent variable, which makes it possible to control for the initial level and to adjust for measurement error (McArdle, 2009).

All analyses were conducted in Mplus v. 6 (Muthén & Muthén, 2010) with robust maximum likelihood estimation, wherein missing values on dependent variables and
continuous covariates were handled with the full information maximum likelihood (FIML) algorithm. In follow-up analyses, attrition was also handled with this algorithm; that is, information from the entire T1 sample was used. We used a conventional alpha level of .05 throughout the study.

Results and Discussion

**Cross-sectional analyses.** Descriptive statistics (see Table 1) and t-tests (not shown) suggested that the three age groups did not differ on perceived growth in occupational uncertainty and on the strategies used to cope with it. Previous studies found that the use of disengagement strategies was higher, on average, among older adults (Heckhausen et al., 2010). However, this was not anticipated in our samples, as the older group was inevitably biased towards active individuals, at least in terms of labor force participation. The prevalence of volunteer work in our samples increased with the participants’ age, $\chi^2(2, N = 3,318) = 54.6, p < .001$, which roughly corresponded to the pattern of age differences reported by the German Survey on Volunteering (Gensicke & Geiss, 2010).

The measurement model for engagement and disengagement included two latent variables, each measured by three indicators, with factor loadings constrained to be equal across age groups. This model fit the data well, $\chi^2(40, N = 3311) = 92.6, p < .001$, CFI = .992, RMSEA = .035, SRMR = .030. It did not significantly differ from that with factor loadings freed across age groups, $\Delta\chi^2(8) = 8.9, ns$. Correlations between the two latent variables ranged from -.49 to -.27. In the following, we present main results of regression analyses expressed in odds ratios; a full report showing the effects of all control variables is available upon request.

After all control variables were entered in the model, perceived growth in occupational uncertainty in and of itself, as expected, had no significant effects on the likelihood of doing volunteer work: at ages 16–29, Exp ($B$) = 0.97, $ns$, 95% CI [0.88, 1.08];
at ages 30–43, Exp \( (B) = 0.96, \text{ns}, 95\% \text{ CI } [0.88, 1.04] \); and at ages 56–75, Exp \( (B) = 0.92, \text{ns}, 95\% \text{ CI } [0.81, 1.04] \). In contrast, goal engagement in coping with occupational uncertainty was significantly associated with a higher likelihood of doing volunteer work only in the youngest group. This finding supported Hypotheses 1 and 2. Specifically, at ages 16–29, Exp \( (B) = 1.53, p < .001, 95\% \text{ CI } [1.22, 1.91] \); at ages 30–43, Exp \( (B) = 1.01, \text{ns}, 95\% \text{ CI } [0.84, 1.21] \); and at ages 56–75, Exp \( (B) = 1.05, \text{ns}, 95\% \text{ CI } [0.83, 1.35] \). The effect in the youngest group was significantly \( (p < .05) \) different from those in the other two groups. Regarding the effect size, at ages 16–29, an increase of one \( SD \) in the latent engagement score corresponded to 1.5 times greater odds of doing volunteer work.

We found exactly the opposite pattern for goal disengagement. In the youngest group only, disengagement was significantly associated with a lower likelihood of doing volunteer work: at ages 16–29, Exp \( (B) = 0.70, p < .001, 95\% \text{ CI } [0.59, 0.82] \); at ages 30–43, Exp \( (B) = 0.90, \text{ns}, 95\% \text{ CI } [0.80, 1.02] \); and at ages 56–75, Exp \( (B) = 1.07, \text{ns}, 95\% \text{ CI } [0.90, 1.27] \). This finding partly supported Hypothesis 3 but not Hypothesis 4, which predicted that goal disengagement would be related to a greater likelihood of volunteering in the oldest group. The difference between the youngest and the other two groups was significant, \( p < .05 \). In terms of the effect size, an increase of one \( SD \) in the latent disengagement score corresponded to \( 1 / 0.70 = 1.4 \) times lower odds of doing volunteer work in the youngest group.

**Follow-up analyses.** The longitudinal measurement model for engagement and disengagement included latent scores at T1 and T2 and a latent difference score representing change between T1 and T2. This model had factor loadings constrained to be equal across age groups and time, whereas the covariance between T1 score and the latent difference score was free to vary across groups. We tested this model for each coping strategy separately; the model fit was satisfactory: for engagement, \( \chi^2(42, N = 3,337) = 126.5, p < .001, \text{CFI} = .975, \text{RMSEA} = .043, \text{SRMR} = .061 \); for disengagement, \( \chi^2(42, N = 3,337) = 120.1, p < .001, \text{CFI} = .975, \text{RMSEA} = .043, \text{SRMR} = .061 \).
= .981, RMSEA = .041, SRMR = .050. With regard to the dependent variable, Table 2 shows cell sizes for each longitudinal pattern of volunteer work. Across age groups, remaining uninvolved at both measurement points was the most common pattern. At ages 16–29, remaining continuously involved from T1 to T2 was the least frequent pattern. At ages 30–43 and particularly at ages 56–75, this continuity was observed much more often.

[Table 2 about here]

Table 3 shows regression estimates (in odds ratios) for the initial levels and changes in the latent scores on engagement and disengagement as predictors of the likelihood of change in volunteer work (a full report is available upon request; perceived growth in occupational uncertainty had no significant effects). Contrary to Hypothesis 1, at ages 16–29, neither the initial level nor change in goal engagement had significant effects on the likelihood to start volunteer work between T1 and T2. Nonsignificant effects of goal engagement at ages 30–43 and 56–75 supported Hypothesis 2, which allowed for nonsignificant effects of goal engagement at the establishment and the maintenance stages.

Furthermore, in partial support of Hypothesis 3, small odds ratios for the initial level and change in goal disengagement at ages 16–29 indicated a lower likelihood to start volunteer work at T2 if higher disengagement was reported at T1 or from T1 to T2. One of these effects was significant, and both significantly differed from the corresponding effects at ages 30–43, at ages 56–75, or at both ages (see Table 3). However, nonsignificant effects of goal disengagement at ages 30–43 contradicted Hypothesis 3.

At ages 56–75, the effect of change in disengagement was significant. It indicated that an increase of one SD in the latent difference score on goal disengagement corresponded to approximately 5.8 times greater odds of starting volunteer work at T2. This estimate had low precision because of a small cell size: Only 16 older participants reported to have started volunteer work from T1 to T2. Nevertheless, this finding, as well as the fact that both effects
of goal disengagement were significantly larger in the oldest than they were in the youngest group, lent more support to Hypothesis 4 than what was obtained in cross-sectional analyses.

[Table 3 about here]

Regarding the likelihood of dropping volunteer work at T2, it was only predicted by an increase in goal disengagement from T1 to T2 at ages 30–43 (see Table 3). This finding partly supported Hypothesis 3 (full support would have been provided if the same effect emerged in the youngest group). Furthermore, as with starting volunteer work, nonsignificant effects of goal engagement in all age groups did not support Hypothesis 1 but supported Hypothesis 2, which allowed for no relationship between goal engagement and volunteering at the establishment and maintenance career stages. Hypothesis 4, which would predict that at ages 56–75, goal disengagement in coping with occupational uncertainty would be related to continuing, rather than dropping, volunteering, was not supported here. No significant age differences in any of the effects on the likelihood of dropping volunteer work emerged.

To sum up, Study 1 yielded partial support for all our hypotheses. Cross-sectional analyses supported the idea that goal engagement in coping with occupational uncertainty fosters volunteering at the exploration career stage, whereas goal disengagement hinders it. Follow-up analyses lent further support for the negative role of goal disengagement at the exploration and establishment career stages and for its positive role at the disengagement stage. A serious limitation of Study 1 was its binary indicator of volunteering. In Study 2, we sought to replicate our previous findings by using an independent sample (which, however, covered a more limited age range) and a different measure of volunteering.

Study 2

Method

Participants and procedure. Participants aged 20–40 were drawn from two federal states of the former East Germany via random digit dialing (RDD). The sample was stratified
by regional administrative units and age. Computer-assisted telephone interviews (CATI) were conducted from October 2010 to January 2011 by the trained personnel of the CATI laboratory at the University of Jena, Germany. Without a correction for respondents’ unknown eligibility, we estimated a response rate at only 5.0%; with this correction, we estimated it at 50.5% (The American Association for Public Opinion Research, 2009). Comparison with the German Microcensus 2010 (Forschungsdatenzentrum des Thüringer Landesamtes für Statistik, 2012) showed that females, higher educated persons, nonworking individuals, and single individuals were overrepresented in this sample.

Altogether, 1,400 full interviews lasting approximately 20 minutes were conducted. All participants received questions about their sociodemographic backgrounds, coping with occupational uncertainty, and lifetime experience of civic and political participation. Items on the cognitive antecedents of civic participation were administered to a random half of the sample. The other half received the same items referring to political participation. In this study, we used the first subsample. We excluded nine participants (1.3%) with missing values on major sociodemographic indicators. We split the sample into two age groups (20–29 and 30–40). Table 4 shows the sample sizes along with descriptive statistics for each age group.

Measures. Lifetime experience of civic participation was measured with items adopted from the German Survey on Volunteering (Gensicke & Geiss, 2010). The participants were given a definition of civic participation (i.e., unpaid, voluntary activities undertaken during one’s leisure time for community benefit) and asked to estimate the extent of their prior or current participation (0 = never; 1 = once; 2 = rarely; 3 = often; 4 = regularly) in each of the following 10 domains: leisure time and social life; social welfare; health; kindergarten and school; nature conservation and environmental protection; professional advocacy; religion and church; voluntary fire brigades and rescue services; political
advocacy; and other forms of community participation. Adapting the procedure used by Denault and Poulin (2009), we computed two indicators of lifetime experience of civic participation: *breadth* (the number of domains where nonzero frequency was reported) and *intensity* (the average involvement in those domains where nonzero frequency was reported). The two indicators correlated at .38 and .36 at ages 20–29 and 30–40, respectively.

*Future intentions for civic participation* were measured with two items (“I would like to be civically engaged” and “I intend to be civically engaged;” 1 = does not apply at all; 5 = fully applies; \( r = .84 \) and .79; mean score was used). These items were based on the theory of planned behavior (Fishbein & Ajzen, 2010) and were administered after the questions on lifetime experience. The maximum correlations between the indicators of lifetime experience and future intentions were .47 and .43 at ages 20–29 and 30–40, respectively.

*Perceived growth in occupational uncertainty* (six items; \( \alpha = .81 \) and .87), *goal engagement*, and *goal disengagement* were assessed in the same way as in Study 1, except that a 5-point rating scale was used (1 = does not apply; 5 = fully applies). In addition, goal engagement and disengagement were each measured with only two of the three original items. Correlations between the two items were .40 and .40 for engagement and .34 and .49 for disengagement at ages 20–29 and 30–40, respectively.

*Sociodemographic indicators* included sex (0 = male; 1 = female), school attainment (0 = 8–10 years of schooling; 1 = 12–13 years of schooling), net household income per person in Euros, employment status (0 = not working; 1 = employed), partnership status (0 = not cohabiting with a partner and not married; 1 = cohabiting or married), and presence of underage children in the household (0 = no; 1 = yes).

**Statistical analyses.** Our analytical approach was similar to that used in Study 1. In particular, we conducted all analyses in Mplus v. 6 (Muthén & Muthén, 2010) using robust maximum likelihood estimation and FIML estimation of missing values. We also employed a
multiple group approach, modeled coping strategies as latent variables, tested their effects separately, and used a conventional alpha level of .05. We conducted a series of linear regressions of future intentions for civic participation on control variables (sociodemographic indicators, perceived growth in occupational uncertainty, and lifetime experience of civic participation) and on the strategies of coping with occupational uncertainty.

**Results and Discussion**

The two age groups in Study 2 did not differ in terms of their average reported growth in occupational uncertainty and goal disengagement; however, a small but significant difference in goal engagement emerged (see Table 4). In particular, those aged 30–40 reported slightly higher engagement than those aged 20–29, \( t = 2.64, \text{df} = 686, p < .01 \). There were no significant differences in the breadth of lifetime civic participation or in future intentions, whereas the intensity of lifetime participation was somewhat higher at ages 30–40 (see Table 4), \( t = 2.88, \text{df} = 690, p < .01 \). Even where the differences on these key indicators of interest were significant, they were obviously very small.

The measurement model for goal engagement and disengagement included two latent variables, each measured by two indicators (for the model to be identified, residual variance on one observed indicator of engagement was fixed to zero in the first group), with factor loadings constrained to be equal across age groups. This model fit the data very well, \( \chi^2(7, N = 691) = 10.9, \text{ns, CFI} = .987, \text{RMSEA} = .040, \text{SRMR} = .029 \). It did not significantly differ from that with factor loadings freed across groups, \( \Delta \chi^2(2) = 3.1, \text{ns} \). The correlations between engagement and disengagement were -.36 and -.26 at ages 20–29 and 30–40, respectively.

With all control variables in the equation, except for lifetime civic participation and coping strategies, perceived growth in occupational uncertainty was not significantly associated with future intentions for civic participation: At ages 20–29, \( B = -0.15, p < .10, 95\% \text{ CI} [-0.31, 0.01] \); at ages 30–40, \( B = -0.06, \text{ns, 95\% CI [-0.18, 0.07]} \). This was in line
with expectations and supported our findings from Study 1. Table 5 shows regression estimates for the latent scores on goal engagement and disengagement as predictors of future intentions. We present regression coefficients both controlled and uncontrolled for lifetime civic participation as they are somewhat different. A full report showing the effects of control variables is available upon request.

When lifetime civic participation was not in the equation, goal engagement had a significant positive effect on future intentions for civic participation at ages 20–29 but not at ages 30–40, and the difference between age groups was significant. With lifetime civic participation, which accounted for up to 20% of the variance in future intentions, in the equation, the positive effect of engagement at ages 20–29 became nonsignificant, but the difference between the groups remained significant. These results supported Hypotheses 1 and 2 and corroborated our findings from Study 1.

[Table 5 about here]

No significant effects emerged for goal disengagement (see Table 5). However, the overall pattern of effects was similar to that found in cross-sectional analyses of Study 1. Specifically, the effect of disengagement appeared to be more negative at ages 20–29, where it was marginally significant, than at ages 30–40. Goal disengagement accounted for about 1% of the variance in future intentions at ages 20–29 (the increment in explained variance was significant) versus 0.1–0.2% at ages 30–40 (see Table 5; the difference between age groups was not significant). As in Study 1, this finding partly supported Hypothesis 3.

To conclude, Study 2 gave independent support for our proposition that goal engagement in coping with occupational uncertainty may foster volunteering, whereas goal disengagement may hinder volunteering at the exploration career stage. Given that a similar pattern of results, albeit not always significant, emerged in Study 2 as in the cross-sectional analyses of Study 1, despite the smaller sample sizes and a different measure of volunteering,
we deemed Study 2 a successful replication of Study 1. We thereby drew on Kline’s (2013) argument that a replication takes precedence over significance testing.

**General Discussion**

In the present article, we attempted to determine whether growing occupational uncertainty (e.g., job insecurity, career instability, and difficulties with career planning; Hofäcker et al., 2010; Kalleberg, 2011) poses a general threat to one form of civic participation, namely formal volunteering (Carnoy, 2000; Voydanoff, 2007). Whereas previous sociological studies from the U.S. answer this question affirmatively (Brand & Burgard, 2008; Rotolo & Wilson, 2003; Wilensky, 1961; Wilson & Musick, 1997), our psychological study conducted in Germany suggests that the answer is, “It depends.”

We drew together Super’s (1957; Super et al., 1996) life-span, life-space theory of career development, the motivational theory of life-span development (Heckhausen et al., 2010), research on individual-level effects of social change (Pinquart & Silbereisen, 2004; Silbereisen & Chen, 2010), and studies that link paid work and formal volunteering. On these bases, we argued that formal volunteering may be useful to workers at the exploration and the disengagement career stages, albeit in different ways, and that stage-appropriate coping with occupational uncertainty may lead to a greater readiness to volunteer at these career stages. In two empirical studies presented in this article, we focused on testing the latter proposition about the role of coping.

Our hypotheses on the exploration career stage received the strongest support. At ages 16–29 (Study 1) or 20–29 (Study 2), goal engagement in coping with occupational uncertainty was positively related to volunteering in the past 12 months and to future intentions for volunteering, whereas goal disengagement reduced the likelihood of having volunteered in the past 12 months and of starting volunteering over a 1-year period. Thus, at labor market entry, individual agency seems to be a decisive link between occupational
uncertainty and volunteering. It may be hoped that current and future cohorts of active, engaged young Germans will continue to join the ranks of volunteers, despite the fact that younger generations are supposedly affected by occupational uncertainty more than are older ones (Hofäcker et al., 2010). As formal volunteering is useful to their future careers, labor market entrants may strategically engage in volunteering to tackle occupational uncertainty, thereby demonstrating good career adaptability (Savickas, 1997). Concerns may be raised that young individuals who become volunteers for extrinsic reasons, such as “résumé padding,” are unlikely to become seriously involved (Hustinx et al., 2010). However, volunteer experience at a younger age is one of the best predictors of later volunteering (Oesterle, Kirkpatrick Johnson, & Mortimer, 2004). Furthermore, young individuals who report instrumental motives for volunteering also typically report altruistic and other motives (Gensicke & Geiss, 2010; Hustinx et al., 2010; Okun & Schultz, 2003).

Concerning the establishment and the maintenance career stages (Super et al., 1996), we argued that engagement coping with occupational uncertainty is likely to result in focusing on the work domain and thus cannot foster formal volunteering, which offers fewer career benefits at these stages. Indeed, in Study 1, we found no significant effects of goal engagement in coping with occupational uncertainty on volunteering among those aged 30–43 and 56–75. The same null finding emerged for ages 30–40 in Study 2. Although these results confirmed our expectations, some of our analyses, particularly those using the follow-up sample, had low statistical power to reject the null hypothesis of no relationship.

When considering the role of disengagement coping with occupational uncertainty at the exploration and the establishment career stages, we drew on the contention that untimely disengagement from major life goals is related to maladaptive outcomes (Haase et al., 2012; Heckhausen et al., 2010). Our findings supported this contention. In Study 1, disengagement coping was related to a lower likelihood of having volunteered in the past 12 months and of
starting volunteering over 1 year among labor market entrants (ages 16–29) and to a greater likelihood of dropping volunteering in the course of 1 year among those in the establishment career stage (ages 30–43). Study 2 also yielded a negative, albeit only marginally significant, effect of goal disengagement on future intentions for civic participation at ages 20–29. Notably, if goal disengagement in coping with occupational uncertainty led to a greater likelihood of formal volunteering, such a result would indicate that volunteering might compensate for a lack of success in the paid work domain. Obviously, this was not the case at the exploration and the establishment career stages, possibly because the paid work role is highly salient at these stages (Super et al. 2012; cf. Pavlova & Silbereisen, 2012a).

In contrast, in the oldest group, which was on the brink of retirement, we expected that disengagement coping with occupational uncertainty would foster formal volunteering, which may compensate for unattainable career goals (Mutchler et al., 2003; Pavlova & Silbereisen, 2012a). Cross-sectionally, goal disengagement was unrelated to volunteering among those aged 56–75. Prospectively, an increase in disengagement was associated with a greater likelihood to start volunteering over 1 year. This finding provided some support for our hypothesis. Admittedly, initiating volunteer work is uncommon at an older age (Wilson, 2000). In fact, nine of the 16 older participants in Study 1 who reported starting volunteer work at Time 2 had prior volunteering experience. All the more important it is to understand the factors that might contribute to starting or resuming volunteering at an older age. As our results suggest, an adaptive ability to shift goals and reset priorities at the end of the work life may be one of such factors (cf. Heckhausen et al., 2010; Savickas, 1997; Super et al., 1996). Not the least because a sample of older workers was available only in Study 1, our findings for the disengagement career stage remain limited and need further exploration.

Notably, we found few significant effects of coping with occupational uncertainty on the likelihood of dropping volunteering. One explanation may be that volunteering is often a
habitual, socially embedded activity, especially in late adulthood (cf. Wilson, 2000). Hence, in most cases, employing one or another strategy of dealing with occupational uncertainty may not lead to a withdrawal from volunteering, which is, of course, a good news. However, we did not test for the possibility that some workers reduce their investment (e.g., hours volunteered) instead of dropping volunteering entirely.

As expected, perceived occupational uncertainty per se did not have significant effects on the outcomes considered in this article. However, prior studies, which partly used the same data, found that perceived occupational uncertainty impaired subjective well-being (Körner et al., 2012; Pinquart et al., 2009; Tomasik & Silbereisen, 2012). Subjective well-being is arguably a more immediate outcome of perceived occupational uncertainty than is volunteering, for which ways of coping with occupational uncertainty may be of prime importance. Moreover, Tomasik et al. (2010) found that higher levels of perceived occupational uncertainty were associated with higher scores on all coping strategies, a finding that supported the common assumption that all coping efforts are activated in response to a stressor (Lazarus & Folkman, 1984). A choice of adaptive coping strategies in response to occupational uncertainty, however, depends not only on the stressor level but also on other factors, such as personality traits (Pavlova & Silbereisen, 2013). Altogether, this line of research points at large variability in the consequences of occupational uncertainty and at the pivotal role of individual agency (Pinquart & Silbereisen, 2004; Silbereisen & Chen, 2010).

**Limitations and Future Directions**

A major limitation of the present studies was the use of age groups to operationalize career stages. The variability in career-related developmental tasks that adults encounter is very large. As we did not allow for such variability, our findings might underestimate the effects of career stages. Measuring this construct directly and considering occupational differences is a task for future research. Our rationale for choosing particular age ranges may
also be criticized. In additional analyses (not shown), we tested different threshold ages between the exploration and the establishment stages: 27 and 33 years of age. Overall, this led to a very similar pattern of findings.

The representativeness of our samples may be questioned. This is especially true for the follow-up sample of Study 1, in which systematic longitudinal attrition was observed, and for Study 2, in which demographic characteristics of the sample deviated markedly from those in the population. We tried to overcome these limitations by comparing findings from independent surveys (Study 1 vs. Study 2) and by estimating the extent of bias. For instance, in Study 2, analyses with sampling weights that corrected the demographic proportions of the sample led to virtually the same results (analyses not shown).

Our reliance on self-report data could lead to a common method variance. Still, we obtained convergent findings by using a more factual measure of volunteer work in Study 1 and a more subjective measure of future intentions for civic participation in Study 2. Obtaining similar results with different methods is a robust type of replication (“construct replication”), which indicates that original findings have considerable generality (Kline, 2013). The binary indicator of volunteer work in Study 1 was a serious limitation. However, as it was based on precisely formulated items that referred to formal volunteering, it was unlikely to overestimate the volunteer involvement of our participants. The fact that we obtained lower volunteering rates than those reported by the German Survey on Volunteering (Gensicke & Geiss, 2010) also suggested that we used a rather narrow definition. Nevertheless, future research will benefit from using more differentiated measures of volunteer involvement.

Our indicator of perceived occupational uncertainty may be criticized for being somewhat weak and unspecific. A more severe work-related threat, such as an imminent job loss, may impact civic participation more negatively (Voydanoff, 2007). However, research
on job insecurity has shown that perceived threats may have no less detrimental consequences than actual negative events and circumstances (Sverke & Hellgren, 2002). Moreover, prior studies (e.g., Tomasik & Silbereisen, 2009) showed our indicator to be a valid measure of a worsening occupational situation in the German context.

In both studies, we controlled for common predictors of volunteering. Additionally, in Study 1, we used data from a 1-year follow-up and found that disengagement coping with occupational uncertainty was associated with changes in volunteering. In spite of this, our data did not allow for causal inferences, and we should not prematurely believe that stage-appropriate coping with occupational uncertainty somehow “causes” volunteering. Other prerequisites, such as prosocial attitudes, availability of role models, and recruitment (Wilson, 2000), must be met for individuals to become volunteers.

Although we argued that formal volunteering may be useful to workers in the exploration and the disengagement career stages, we did not test this proposition directly by linking volunteering to work outcomes. Future studies may address the outcomes of volunteering under varying levels of occupational uncertainty and at different career stages. The concept of career transition may be fruitfully used to analyze the link between formal volunteering and paid work in the exploration and disengagement career stages, which may be regarded as transitions into and out of the labor market, respectively. Last but not least, our data came from Germany, a country with a conservative labor market and welfare regime, where occupational uncertainty may be less pronounced and less stressful for individuals than it is elsewhere. Hence, our conceptual statements should be tested in other socioeconomic contexts.

Despite some limitations, our findings strongly suggest that occupational uncertainty has varying implications for individuals’ readiness to volunteer, depending on their career stage and ways of coping with this stressor. Honing individual coping skills and tailoring
them to career stages may therefore facilitate not only occupational success but also volunteer involvement in the era of increasing labor market uncertainty and career instability.
References


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### Table 1

**Descriptive Statistics for Study 1 at T1**

<table>
<thead>
<tr>
<th>Characteristics</th>
<th>Ages 16–29</th>
<th>Ages 30–43</th>
<th>Ages 56–75</th>
</tr>
</thead>
<tbody>
<tr>
<td>N</td>
<td>Original sample</td>
<td>Follow-up sample</td>
<td>Original sample</td>
</tr>
<tr>
<td></td>
<td>1,253</td>
<td>224</td>
<td>1,560</td>
</tr>
<tr>
<td>East Germany, %</td>
<td>54.1</td>
<td>65.2</td>
<td>45.4</td>
</tr>
<tr>
<td>Community size (1–7), $M (SD)$</td>
<td>3.5 (1.7)</td>
<td>3.5 (1.8)</td>
<td>3.5 (1.8)</td>
</tr>
<tr>
<td>Female, %</td>
<td>49.1</td>
<td>53.1</td>
<td>57.4</td>
</tr>
<tr>
<td>Age, $M (SD)$</td>
<td>22.6 (4.1)</td>
<td>23.0 (4.3)</td>
<td>38.1 (3.9)</td>
</tr>
<tr>
<td>8 years of schooling, %</td>
<td>21.2</td>
<td>21.9</td>
<td>24.5</td>
</tr>
<tr>
<td>12–13 years of schooling, %</td>
<td>31.4</td>
<td>31.3</td>
<td>19.4</td>
</tr>
<tr>
<td>Employed, %</td>
<td>30.6</td>
<td>28.1</td>
<td>68.6</td>
</tr>
<tr>
<td>Income in Euros (45.8–8750.0), $M (SD)$</td>
<td>757.1 (556.4)</td>
<td>707.4 (493.6)</td>
<td>913.9 (601.5)</td>
</tr>
<tr>
<td></td>
<td>(928.3)</td>
<td>(736.4)</td>
<td></td>
</tr>
<tr>
<td>Has a steady partner, %</td>
<td>43.3</td>
<td>45.1</td>
<td>75.9</td>
</tr>
<tr>
<td></td>
<td>17.7</td>
<td>22.8</td>
<td>71.0</td>
</tr>
<tr>
<td>--------------------------------------</td>
<td>------</td>
<td>------</td>
<td>------</td>
</tr>
<tr>
<td>Has children, %</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>General health (1–7), M (SD)</td>
<td>5.9  (1.2)</td>
<td>5.9  (1.2)</td>
<td>5.6  (1.3)</td>
</tr>
<tr>
<td>Dispositional optimism (1–7), M (SD)</td>
<td>4.9  (0.8)</td>
<td>5.1  (0.8)</td>
<td>5.0  (0.9)</td>
</tr>
<tr>
<td>Perceived growth in occupational</td>
<td>4.4  (1.6)</td>
<td>4.4  (1.5)</td>
<td>4.5  (1.7)</td>
</tr>
<tr>
<td>uncertainty (1–7), M (SD)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Engagement (1–7), M (SD)</td>
<td>5.5  (1.1)</td>
<td>5.5  (1.1)</td>
<td>5.5  (1.1)</td>
</tr>
<tr>
<td>Disengagement (1–7), M (SD)</td>
<td>3.0  (1.5)</td>
<td>2.8  (1.4)</td>
<td>3.0  (1.5)</td>
</tr>
<tr>
<td>Volunteer work in the past 12 months, %</td>
<td>18.9</td>
<td>21.0</td>
<td>20.6</td>
</tr>
</tbody>
</table>

*Note.* Mean raw scores on the coping strategies are shown.
Table 2

*Cell Sizes for the Patterns of Volunteer Work at T1 vs. T2 in the Three Age Groups*

<table>
<thead>
<tr>
<th></th>
<th>Ages 16–29</th>
<th>Ages 30–43</th>
<th>Ages 56–75</th>
</tr>
</thead>
<tbody>
<tr>
<td>No volunteer work at both T1 and T2</td>
<td>150</td>
<td>205</td>
<td>121</td>
</tr>
<tr>
<td>Started at T2</td>
<td>26</td>
<td>62</td>
<td>16</td>
</tr>
<tr>
<td>Dropped at T2</td>
<td>28</td>
<td>30</td>
<td>14</td>
</tr>
<tr>
<td>Continued from T1 to T2</td>
<td>19</td>
<td>65</td>
<td>62</td>
</tr>
<tr>
<td>Total</td>
<td>223</td>
<td>362</td>
<td>213</td>
</tr>
</tbody>
</table>
Table 3

*Initial Level and Residual Change in Coping With Occupational Uncertainty and the Patterns of Volunteer Work at T1 vs. T2*

<table>
<thead>
<tr>
<th>Predictor</th>
<th>Ages 16–29</th>
<th>Ages 30–43</th>
<th>Ages 56–75</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>((N_{T1} = 1,253, N_{T2} = 224))</td>
<td>((N_{T1} = 1,560, N_{T2} = 371))</td>
<td>((N_{T1} = 535, N_{T2} = 215))</td>
</tr>
<tr>
<td>Exp (B)</td>
<td>95% CI</td>
<td>Exp (B)</td>
<td>95% CI</td>
</tr>
<tr>
<td>Started vs. remained uninvolved in volunteering</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Engagement T1</strong></td>
<td>1.98 ([0.92, 4.28])</td>
<td>1.43 ([0.96, 2.12])</td>
<td>1.24 ([0.63, 2.43])</td>
</tr>
<tr>
<td><strong>Δ Engagement T1–T2</strong></td>
<td>1.38 ([0.61, 3.11])</td>
<td>1.20 ([0.72, 1.99])</td>
<td>0.76 ([0.12, 5.08])</td>
</tr>
<tr>
<td><strong>Disengagement T1</strong></td>
<td>0.55(_a) ([0.34, 0.88])</td>
<td>0.84 ([0.59, 1.21])</td>
<td>1.51(_b) ([0.83, 2.74])</td>
</tr>
<tr>
<td><strong>Δ Disengagement T1–T2</strong></td>
<td>0.67(_a) ([0.43, 1.05])</td>
<td>1.16(_b) ([0.85, 1.56])</td>
<td>5.84(_b) ([1.15, 29.76])</td>
</tr>
<tr>
<td>Dropped vs. continued volunteering</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Engagement T1</strong></td>
<td>0.33 ([0.07, 1.51])</td>
<td>0.92 ([0.48, 1.78])</td>
<td>0.74 ([0.37, 1.51])</td>
</tr>
<tr>
<td><strong>Δ Engagement T1–T2</strong></td>
<td>0.53 ([0.11, 2.59])</td>
<td>0.91 ([0.37, 2.28])</td>
<td>0.67 ([0.20, 2.18])</td>
</tr>
<tr>
<td><strong>Disengagement T1</strong></td>
<td>0.96 ([0.45, 2.07])</td>
<td>0.89 ([0.52, 1.52])</td>
<td>1.23 ([0.68, 2.25])</td>
</tr>
<tr>
<td><strong>Δ Disengagement T1–T2</strong></td>
<td>1.00 ([0.39, 2.56])</td>
<td>1.79(_*) ([1.07, 3.00])</td>
<td>0.79 ([0.24, 2.66])</td>
</tr>
</tbody>
</table>
Note. Multinomial logistic regression. Latent scores on engagement and disengagement were used. The effects of engagement and disengagement were tested separately. Analyses were controlled for region, community size, gender, school attainment, employment status, income, partnership status, general health (all measured at T1), and perceived growth in occupational uncertainty (measured retrospectively at T2). As controlling for the T1 level of coping accounted for its dispositional component, we did not control for dispositional optimism. Coefficients with different subscripts differ significantly ($p < .05$) across age groups.

* $p < .05$. 
Table 4

Descriptive Statistics for Study 2

<table>
<thead>
<tr>
<th>Characteristic</th>
<th>Ages 20–29</th>
<th>Ages 30–40</th>
</tr>
</thead>
<tbody>
<tr>
<td>N</td>
<td>326</td>
<td>367</td>
</tr>
<tr>
<td>Female, %</td>
<td>52.1</td>
<td>55.6</td>
</tr>
<tr>
<td>Age, $M (SD)$</td>
<td>24.4 (3.1)</td>
<td>35.7 (3.3)</td>
</tr>
<tr>
<td>12–13 years of schooling, %</td>
<td>54.3</td>
<td>40.1</td>
</tr>
<tr>
<td>Employed, %</td>
<td>48.8</td>
<td>89.1</td>
</tr>
<tr>
<td>Income in Euros (50–4000), $M (SD)$</td>
<td>837.2 (595.6)</td>
<td>927.7 (631.2)</td>
</tr>
<tr>
<td>Cohabiting or married, %</td>
<td>30.7</td>
<td>66.8</td>
</tr>
<tr>
<td>Children in the household, %</td>
<td>28.5</td>
<td>67.8</td>
</tr>
<tr>
<td>Perceived growth in occupational uncertainty (1–5), $M (SD)$</td>
<td>2.7 (1.0)</td>
<td>2.9 (1.2)</td>
</tr>
<tr>
<td>Engagement (1–5), $M (SD)$</td>
<td>4.1 (0.8)</td>
<td>4.2 (0.7)</td>
</tr>
<tr>
<td>Disengagement (1–5), $M (SD)$</td>
<td>2.0 (0.9)</td>
<td>2.0 (1.0)</td>
</tr>
<tr>
<td>Lifetime experience of civic participation</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Breadth (0–10), $M (SD)$</td>
<td>3.2 (2.3)</td>
<td>3.2 (2.2)</td>
</tr>
<tr>
<td>Intensity (0–4), $M (SD)$</td>
<td>2.1 (1.1)</td>
<td>2.3 (1.2)</td>
</tr>
<tr>
<td>Future intentions for civic participation (1–5), $M (SD)$</td>
<td>3.0 (1.3)</td>
<td>3.1 (1.4)</td>
</tr>
</tbody>
</table>

Note. Mean raw scores on the coping strategies are shown.
Table 5

*Coping With Occupational Uncertainty and Future Intentions for Civic Participation*

<table>
<thead>
<tr>
<th>Predictor</th>
<th>Ages 20–29 (N = 326)</th>
<th>Ages 30–40 (N = 367)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>B</td>
<td>95% CI</td>
</tr>
<tr>
<td>Engagement⁹</td>
<td>0.24&lt;sub&gt;c&lt;/sub&gt; * [0.04, 0.44]</td>
<td>.019**</td>
</tr>
<tr>
<td>Engagement⁹</td>
<td>0.14&lt;sub&gt;c&lt;/sub&gt; [-0.04, 0.33]</td>
<td>.003</td>
</tr>
<tr>
<td>Disengagement⁹</td>
<td>-0.13 [-0.27, 0.01]</td>
<td>.009</td>
</tr>
<tr>
<td>Disengagement⁹</td>
<td>-0.12 [-0.25, 0.01]</td>
<td>.010*</td>
</tr>
</tbody>
</table>

*Note.* Multiple linear regression. Latent scores on engagement and disengagement were used; the effects of engagement and disengagement were tested separately. Coefficients with different subscripts differ significantly (p < .05) across age groups.

⁹ Controlled for gender, educational attainment, employment status, income, partnership status, children in the household, and perceived growth in occupational uncertainty.

⁹ Controlled for all of the above and for intensity and breadth of lifetime experience of civic participation.

**p < .01. * p < .05.