Goals and Personal Resources that Contribute to the Development and Agency Attachment of Older Adult Volunteers*

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RÉSUMÉ

Nous avons examiné la contribution bénévolat (N = 100) pour développer le rôle bénévolat et l'attachement aux agences des personnes âgées. Informé par un cadre intégrant la réglementation du développement et la théorie de la selectivité socio-affective, nous avons testé une double hypothèse pour la prémisse que le développement de plus grand rôle et l'attachement à l'agence serait vécue par (1) les personnes âgées qui avaient des objectifs multiples pour le bénévolat, et (2) les personnes âgées qui ont poursuivi ces objectifs en faisant une plus grande utilisation de leurs ressources sociales par rapport à leur physique et leurs ressources cognitives. Les deux hypothèses ont été corroborées. Les personnes âgées qui ont des motifs nombreux pour le bénévolat, et qui maximisent l'utilisation de leurs compétences et de leurs comportements sociales, sont plus fortement attachées à leur organisme d'acceuil et atteindre des niveaux plus élevés de développement du rôle bénévole. Les implications pour le domaine du volontariat sont discutées.

ABSTRACT

We examined the volunteer service contribution of older adults (N = 100) to volunteer role development and agency attachment. Informed by a developmental regulation framework and socio-emotional selectivity theory, we tested a twofold hypothesis for the premise that greater role development and agency attachment would be experienced by (1) older adults who had multiple goals for volunteering, and (2) older adults who pursued these goals by making greater use of their social resources relative to their physical and cognitive resources. Both hypotheses were supported. Older adults who have numerous motives for volunteering, and who maximize the use of their social skills and prosocial attitudes, are more strongly attached to their host agency and experience higher levels of volunteer role development. Implications for the field of volunteerism are discussed.

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For most older adults the years following retirement can offer opportunities to pursue goals and experience new vistas that may have been precluded by job pressures, family demands, and other commitments that typically define earlier stages of the lifespan. For a variety of reasons, volunteer work appeals to a large segment of the older adult population, representing one important way they can "give back" to the community

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for the support and benefits they have experienced during their lifetime. In 2004, for example, the Canadian National Survey on Giving, Volunteering, and Participating found that approximately 36 per cent of older adults over 65 were currently volunteering (Statistics Canada, 2009). Those aged 65 and older are the most committed volunteers, providing an average of 218 hours of annual service, compared to 170 hours for those aged 45 to 54 (Statistics Canada, 2009).

Several investigations have shown that sustained volunteer work yields benefits to older adults that include increased life satisfaction and well-being, less depressive affect, and lower mortality rates compared to their non-volunteering counterparts (Adelmann, 1994; Musick & Wilson, 2003; Oman, Thoresen, & McMahon, 1999). A meta-analysis of 37 studies has revealed that older adult volunteers have a higher life quality than non-volunteers (Wheeler, Gorey, & Greenblatt, 1998), and that interpersonal helping, such as friendly visiting, reaps greater benefits than does volunteering in ways that do not have a known personal beneficiary, such as in performing administrative work (Wheeler et al., 1998). Longitudinal studies have also provided credible evidence for the protective effects of volunteer work. Drawing on a sample of 4,860 older adults over a seven-year period, the Asset and Health Dynamics among the Oldest Old (AHEAD) study found that older adults who volunteered for at least 100 hours per year were significantly less likely to report poor health and limitations in daily living (Luoh & Herzog, 2002). Moreover, two years later these older adult volunteers had a significantly lower mortality rate than non-volunteers and volunteers who invested less than 100 hours per year (Luoh & Herzog, 2002). The Longitudinal Study of Aging also documented the link between volunteering and reduced mortality (Harris & Thoresen, 2005).

Collectively, these studies suggest that, for older adults, the health and morale benefits of volunteer work are contingent on sustained occupancy of the volunteer role and service that involves contact with known beneficiaries. Short of these longer-term effects on morbidity and mortality, volunteer work presents an opportunity to examine proximal benefits that contribute to adaptive psychological function and developmental regulation in later life. Moreover, as a context for studying the interplay between older adults and their environments, volunteer work can reveal how the pursuit of certain goals and the employment of particular personal resources can foster development in later life while also meeting the needs of agencies for a stable pool of volunteers.

Our study investigated two potential benefits of volunteer work that further illuminate the value of such work for older adults. The potential benefits we investigated were (a) role development in the context of volunteer work, and (b) volunteers' attachment to the host agencies where they work, which is a partial reflection of their social integration. Our research has been broadly conceived and informed by the Selection, Optimization, and Compensation (SOC) framework on developmental regulation formulated by Baltes and Baltes (1990) and which we further elaborated on the basis of work by Freund and Baltes (1998, 2000). SOC is a lifespan development framework that examines processes (i.e., selection, optimization, and compensation) that individuals employ to manage their lives. The two hypotheses we tested were based on the SOC framework as well as on socio-emotional selectivity theory, which explains the relatively large investment older adults make in emotionally meaningful activities and expressive relationships (Carstensen, Isaacowitz, & Charles, 1999). Both of these theoretical foundations make volunteer work an instructive context for the study of goal setting, resource allocation, and developmental growth among older adults.

Theoretical Perspectives on Volunteering

The SOC Meta-theory: Selection

SOC is a lifespan development framework that examines three generic processes people employ to manage their lives successfully: selection, optimization, and compensation. In the process of elective selection, according to Freund, Li, and Baltes (1999), individuals select one or more meaningful goals that are consistent both with their needs and resources and with available opportunities. If several goals are selected, then the individuals order them in a hierarchy (i.e., optimization). The identification of goals has an important regulatory function of its own, namely to guide and organize behavior, and which is in keeping with constraints imposed by personal limitations and environmental exigencies. By concentrating on specific, interrelated goals, individuals can pursue goals more intensely (Riediger & Freund, 2006). Restricting the number of goals to pursue is less beneficial to an individual than selecting goals that are similar to one another and central to a person's desired accomplishments (Riediger & Freund, 2006). Furthermore, and what was most relevant to our study, the selection of a larger number of interrelated goals can facilitate goal attainment because striving for one goal may also help the individual to achieve other, related goals (Riediger & Freund, 2004; Riediger, Freund, & Baltes, 2005). Equally important, a strategy of adopting multiple goals offers more opportunity to reach at least a few goals should some goals be unattainable.

Volunteer work is an attractive activity because it can simultaneously serve many different goals for older

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adults. It can be a way to form new social ties or to join friends who are already volunteering. It can also meet older adults' generativity needs (e.g., helping future generations) by giving them an opportunity to help people who are less fortunate. Volunteerism can also provide an outlet for physical exercise, such as the activity involved in delivering meals, or for the cognitive stimulation entailed in assuming a position on an agency's board of directors. Older adults may also view volunteering as a way to structure their time and to fend off loneliness. Hence, consistent with SOC theory, in our study we hypothesized that older adult volunteers who select a larger number of goals would experience higher levels of role development and greater agency attachment.

The SOC Meta-theory: Optimization

In explaining the optimization construct, the SOC meta-theory maintains that individuals must possess and apply resources that are relevant to the goals they pursue. It follows that the resources that are marshaled will differ according to the context and domain of their application. For example, in their study of the ways elderly arthritis sufferers coped with daily life demands, Gignac, Cott, and Badley (2002) found that study participants mainly invested their resources in efforts to anticipate and prevent difficulties, including increased planning before engaging in challenging activities, scheduling periods of rest to avoid pain or restore energy, and using certain physical movements to avoid pain. Similarly, in the occupational domain, Abraham and Hansson (1995) identified nine types of optimization employed by older workers to maintain their job performance, including extra skill practice, increased attendance at training sessions, and intensification of their efforts to retain and polish their job skills.

Depending on the nature of their work, volunteers may bring to bear a variety of personal resources that can include their physical stamina, social skills, problem-solving abilities, specialized talents and knowledge, life experience, and a host of other skills and qualifications. In our study, the older adult volunteers worked in four main areas: (a) provided meal delivery, (b) escorted transportation, (c) provided friendly visiting, and (d) assisted with congregate dining. All these activities entailed the use of many of the preceding resources. The volunteers had to maintain good relations with the clients they served and with their volunteer manager, had to have the physical fitness to carry food trays and meet whatever cognitive and mobility challenges were involved in their delivery, and had to complete paperwork related to their duties.

Socio-emotional Selectivity Theory

Recognizing that optimization would be manifested in ways that are relevant to the domain and context of volunteering, we drew on socio-emotional selectivity theory (Carstensen et al., 1999) to inform our hypothesis about the resources that were likely to be particularly adaptive by older adult volunteers as they pursued their goals.

As Freund and Riediger (2002) observed: "In order to understand specific manifestations of the SOC processes in particular developmental domains, it is necessary to specify the SOC processes by linking the metamodel with more specific theories pertaining to the phenomena of interest" (pp. 615-616). In brief, socio-emotional selectivity theory maintains that, due to their shorter time horizon, older adults will assign priority to more expressive rather than knowledge-related activities. It follows that those older adults with stronger social interaction skills and prosocial attitudes will make a more favorable adaptation and achieve a higher level of developmental success (Carstensen et al., 1999; Fredrickson & Carstensen, 1990; Lang & Carstensen, 1994). Specifically, we hypothesized that, of the myriad personal resources potentially relevant to the multiple goals adopted by older adult volunteers, those that reflected their *social* competence and prosocial attitudes would have the strongest bearing on their role development and agency attachment.

Volunteer Role Development and Agency Attachment

To determine the adaptive value of older adults' goal selection and resource mobilization, it was necessary to examine benefits that are specific to the domain of volunteer work and important as individual- and community-level indicators of successful developmental regulation. At the individual level, to gauge aspects of developmental success gained from volunteer work, we adapted the universal human need for meaning formulated by Baumeister (1991) to the volunteer role. Meaning is not only integral to all aspects of positive lifespan development but is also associated with positive psychosocial outcomes (Park, Park, & Peterson, 2010; Steger, Oishi, & Kashdan, 2009). Meaning is derived from satisfying the need for purpose, values, and from both a sense of efficacy and a sense of self-worth (Baumeister, 1991). At the community level, we employed – as defined by Chawla (2005) – a measure of intentions to stay at a given work organization in part because strong agency attachment is desirable from both the agency's and volunteer's perspective, but also largely because such attachment contributes to the volunteer's social integration.

In sum, consistent with the meta-theoretical postulates of the SOC framework and with SOC studies in other

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domains (Abraham & Hansson, 1995; Gignac et al., 2002), we proposed that both role development in the context of volunteer work and agency attachment were predicated on the adoption of multiple goals by the volunteers we studied. In addition, guided by socio-emotional selectivity theory, we expected older adult volunteers to place a premium on the social resources and competencies they brought to their work. Employment of these social assets further enhanced older adults' volunteer role development in this domain of civic engagement, and strengthened their attachment to the agencies that hosted them.

Method

Participants

We selected nine community support agencies in southwestern Ontario, Canada. Short of surveying the 692 community support agencies in Ontario, it would be impossible to determine formally how representative these nine agencies are. However, in broad terms, it can be said that they share common support services and funding sources, they rely on volunteers for service delivery, and they each have a small staff of two to five paid, mainly female employees (Gottlieb & Shera, 2009).

We recruited participants ($N = 124$) by approaching the managers of volunteers at the nine agencies. We asked the agency managers to distribute, to all volunteers who met our eligibility criteria, a form we had created that described the study and solicited consent to be contacted by us, the researchers. The eligibility criteria included (a) native English speakers who were deemed by their managers to have normal cognitive function, (b) a minimum age of 54, and (c) active participation in one or more of the following volunteer activities for at least the prior six months: meal delivery, escorted transportation, friendly visiting, or congregate dining. The form stated that study participants would be asked to complete a 30-minute survey administered by a research assistant at the host agency at a time convenient for the participant. Volunteers who consented placed the form in a box and were then telephoned to solicit their participation in the study.

We excluded 24 participants who had missing data for the variables included in the regression analyses and whom we ensured did not differ significantly from the remaining 100 participants in terms of months' volunteering, age, gender, and physical and mental health. Our final sample was composed of 40 men and 60 women, who averaged 72 years of age (range = 54 to 87 years). The sample was largely middle class in terms of education and income; approximately 26 per cent had not completed high school, 21 per cent completed high school, and almost half had completed some form of post-secondary education. In regards to income, 13 per cent reported a total annual household income of less than $20,000; 52 per cent reported their income to be between $20,000 and $50,000; 26 per cent reported over $50,000; and 9 per cent of participants did not divulge their income. The vast majority of the volunteers were retired and not working any other paid jobs (87%). The marital status of participants showed that 61 per cent were married, 11 per cent were separated or divorced, 5 per cent were never married, and 20 per cent were widowed.

The average length of service at their current agency was 6.6 years ($SD = 8.17$), with a range of less than one year to 34 years. The participants volunteered an average of 21 hours per month ($SD = 21.93$), with 36 per cent engaged in meal delivery, 35 per cent providing escorted transportation, 11 per cent offering friendly visiting, 5 per cent assisting with congregate dining, and 13 per cent engaged in other forms of volunteering (e.g., administrative work, or serving as a member of agency board). Accordingly, for most of the volunteers, their work involved direct social interaction with known beneficiaries.

Measures

Goal selection

In selecting 12 goals for volunteering, relevant to older adults and to the four types of volunteer work in which our participants were engaged, we drew from several sources, including the Volunteer Functions Inventory (VFI) by Clary, Snyder, Ridge, Copeland, Stukas, Haugen, et al. (1998). We also considered socio-emotional selectivity theory as applied by Okun and Schultz to their use of the VFI (2003), and the (Canadian) National Survey on Volunteer Activity (Chappell & Prince, 1997). The 12 goals could be categorized as follows: (a) social values (e.g., helping other people) and social participation (e.g., participating with friends who volunteer); (b) self-protection (e.g., keeping mentally active); (c) self-regulation (e.g., structuring personal time); and (d) acquisition of new knowledge and skills. Participants were asked "… how much each of the following factors attracted you or appealed to you about getting involved in volunteering in the first place", and they responded on a 5-point scale that ranged from 1 (*did not attract me at all*) to 5 (*attracted me strongly*). To gauge the breadth of goal selection, the average number of goals the participants endorsed, as reflected by a rating of 2 or more, was calculated. To gauge the strength of goal pursuit, ratings of the goals were summed. Actual scores for the latter ranged from 17 to 60, and Cronbach's alpha for the goal selection items was .89.

Resource optimization

To assess the volunteers' resources for engaging in the four types of work they performed, we drew on two

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main sources of information. We reviewed the abundant Internet sites that list the qualifications and skills needed (e.g., http://www.wwrc.net/volunteer.htm; http://www.pointsoflight.org; http://www.imaginecanada.ca) to engage in the aforementioned community services, and we interviewed 14 managers of volunteers. Our final 14 items reflected two sets of personal resources. The first set of personal resources consisted of eight personal qualities and traits relevant to social goals: (a) friendliness, (b) enthusiasm, (c) compassion, (d) people skills, (e) concern for others, (f) intelligence, (g) energy, and (h) physical stamina. Participants were asked "… how much you use or draw on each", and they responded on a 5-point scale ranging from 1 (*Never*) to 5 (*Always*). The second set of personal resources consisted of six behavioral and cognitive skills potentially relevant to the performance of volunteers' duties: (a) time management, (b) leadership, (c) organizational skills, (d) problem-solving, (e) application of attention and concentration to their work, and (f) application of energy and effort to their work.

Because the behavioral and cognitive resources did not necessarily apply to all four types of volunteer work (friendly visiting, escorted transportation, meal delivery, and congregate dining), participants completed a two-part response format. The first part asked whether the resource was used at all in their volunteer work, and, contingent on an affirmative response, the second part requested a rating of the extent to which the resource was used [*Low* (1); *Moderate* (2); *High* (3)]. A *No* response to the first part was coded zero. Actual scores for the 14 items in the second part ranged from 23 to 58, with higher scores reflecting more use of these personal resources.

Short-Form 36 Health Survey (SF-36)

To control for the influence of the volunteers' health status on the two outcomes of interest, participants completed two subscales from the SF-36 (Ware, Snow, Kosinski, & Gandek, 1993): the 10-item physical functioning subscale ($\alpha = .93$), and the 5-item mental health subscale ($\alpha = .60$). Items were summed such that higher scores on both subscales reflected better functioning.

Control Variables

Along with the two subscales of the SF-36, participants were asked to report gender, age, and number of months spent volunteering, which were included as control variables in the subsequent analyses.

Volunteer Role Development

To date, outcomes related to personal development in the volunteer role have not appeared in the literature. Although researchers have identified measures of skill acquisition among volunteers and a variety of performance evaluation tools (Fisher & Cole, 1993; Millette & Gagne, 2008), the measures and tools are not indicators of the subjective significance of volunteer work for personal development. Moreover, if older adults shape their own development by selecting goals, activities, and settings that are congruent with their values, interests, and competencies (Freund & Baltes, 2000), then the choice of volunteer work should be viewed as an expression of self-regulation in a dynamic and meaningful developmental arena.

As a first step towards the creation of a measure that gauges development in the volunteer role, we drew on the elegant formulation by Baumeister (1991) describing the universal human need for meaning, and we wrote 13 declarative statements that adapted his formulation to reflect successful development in the domain of volunteer work. Four items assessed a sense of purpose (e.g., "My volunteer work gives me a sense of purpose in life"); four assessed values (e.g., "My volunteer work makes me feel like I am making a difference somehow"); three assessed a sense of efficacy (e.g., "My volunteer work has given me a sense of accomplishment"); and two plumbed a basis for self-worth (e.g., "My volunteer work makes me feel that I have grown in some important ways"). Participants were asked how much they agreed or disagreed with each of the 13 statements concerning "what you may get from your volunteer work." The response format ranged from 1 *(strongly disagree*) to 5 (*strongly agree*). In our study sample, summed scores ranged from 13 to 63, with higher scores representing greater development in the volunteer role. The internal consistency for the scale was $\alpha = .81$.

Agency Attachment

Participants' attachment to their host agency was based on a 5-item measure used to assess workplace attachment (Chawla, 2005). Items were adapted to refer to volunteering at an agency rather than working as a paid employee. Items included were as follows: (a) "There are great things about this agency that make me want to stay with it"; (b) "This is the greatest agency to stay with in the long run"; (c) "I would be disappointed if I needed to find a different place to volunteer"; (d) "I would miss volunteering if I had to leave this agency"; and (e) "I would be happier if I left this agency" (reverse-scored item). Using a 5-point response format reflecting strength of agreement or disagreement, items were summed so that higher scores represented greater agency attachment. Actual scores ranged from 15 to 25, and Cronbach's alpha was $\alpha = .80$.

Statistical Analyses

We provided descriptive statistics and preliminary psychometric data, including correlations and reliability

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coefficients, for the goal selection and resource optimization measures in the domain of volunteering. In addition, we conducted a principal components analysis (PCA) using varimax rotation to determine the underlying structure of the resource optimization items.

Two hierarchical regression analyses were then conducted to determine the relative and combined contributions of goal pursuit and resource optimization to the prediction of the volunteers' agency attachment and volunteer role development. To control for age, gender, months spent volunteering, level of physical functioning, and general mental health, we entered these variables in the first step of the regression model. As in previous studies by other researchers (Omoto, Snyder, & Martino, 2000; Thoits & Hewitt, 2001), we included these control variables to control for their influence on the participants' development in the volunteer role and their attachment to their host agencies. We entered goal selection in the second step, and the three uncorrelated resource optimization dimensions derived from the PCA in the third step, on the assumption that our volunteers formulated goals for volunteering before they marshaled their resources. We also tested for interactions between goal selection and the three sets of resources. All assumptions for regression (i.e., potential outliers, linearity, normality, and homoscedasticity of residuals) were satisfied. A significance level of $p < .05$ and listwise deletion were used for all analyses.

Table 1: Means and standard deviations for goal selection and resource optimization items

Items	*M*	*SD*
Goal Selection (Pursuit strength)		
Giving back to the community	4.44	0.77
Helping other people	4.32	0.63
Keeping mentally active	3.98	0.96
Having an outlet for my energy	3.66	1.26
Keeping physically active	3.61	1.28
Keeping occupied	3.61	1.29
Learning new things	3.52	1.26
Making new friends	3.51	1.17
Participating with friends who volunteer	3.19	1.48
Structuring my time	3.25	1.30
Having a routine	3.21	1.46
Keeping loneliness away	2.84	1.55
Resource Optimization		
Friendliness towards others	4.65	0.56
Concern for well-being of others	4.68	0.51
Enthusiasm	4.50	0.61
Compassion	4.63	0.56
People skills	4.41	0.80
Leadership ability[a]	1.31	1.16
Problem-solving ability[a]	1.64	1.06
Time management skills[a]	1.87	1.05
Organizational skills[a]	1.93	1.07
Energy and effort[a]	2.39	0.74
Attention and concentration[a]	2.43	0.77
Physical strength	3.22	1.27

[a] Items reported on a 3-point response format; all other items on a 5-point format.

Results

Table 1 presents the mean scores and standard deviations for the goal selection and resource optimization items. In terms of the breadth of goal selection, the average number of goals endorsed was 10.43, reflecting the high relevance of the goals to these older adults. The value-centred and altruistic goals that involved helping other people ($M = 4.32$, $SD = 0.63$) and giving back to the community ($M = 4.44$, $SD = 0.77$) had the highest mean scores; volunteering as a way of structuring time ($M = 3.25$, $SD = 1.30$) and keeping loneliness away ($M = 2.84$, $SD = 1.55$) had the lowest mean scores.

To prepare for the main regression analyses and to determine the underlying structure of the 14 resource optimization items, PCA using varimax rotation was conducted. Both the scree plot and Kaiser criterion (i.e., eigenvalues greater than 1) suggested that a three-component solution was acceptable (see Table 2)[1]. The three orthogonal components collectively accounted for 61.82 per cent of the total variance. Consistent with socio-emotional selectivity, the first component in Table 2, *Prosocial Attitudes,* consists of five items that reflect the social skills and prosocial outlook that is needed in volunteer work involving social interaction. The second component, *Executive/Management Skills,* consists of four items that tap organizational skills, leadership ability, time management skills, and problem-solving ability. The third component, *Cognitive and Physical Resources,* consists of three constitutional resources including physical strength, attention and concentration, and energy and effort. The intelligence and personal energy items were not included in subsequent analyses because they loaded relatively evenly on more than one component. Participants were assigned factor scores for each of these three dimensions.

Table 3 displays the zero-order correlations among the six study variables, excluding the control variables. The goal selection measure was significantly but modestly correlated with the three optimization dimensions; the more goals endorsed, the more the volunteers reported employing their prosocial attitudes, executive/management skills, and cognitive and physical resources. Selection of multiple goals was also significantly associated with stronger agency attachment ($r = .38$) and greater volunteer role development ($r = .38$). All three types of personal resources were associated with volunteer role development; the more the volunteers

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Table 2: Component loadings and variance percentages for observed resource optimization variables (*n* = 100)

Observed Variables	Prosocial Attitudes	Executive/ Management Skills	Cognitive and Physical Resources	SMC[a]
People skills	**0.77**	–	–	.62
Enthusiasm	**0.77**	–	0.32	.72
Compassion	**0.76**	–	–	.62
Friendliness towards others	**0.75**	–	–	.62
Concern for others' well-being	**0.75**	–	–	.58
Intelligence	0.53	0.42	–	.53
Problem-solving ability	–	**0.79**	–	.66
Organizational skills	–	**0.77**	–	.68
Time management skills	–	**0.71**	0.31	.62
Leadership ability	–	**0.68**	–	.50
Energy and effort	–	–	**0.79**	.70
Attention and concentration	–	–	**0.77**	.65
Physical strength	–	–	**0.69**	.53
Personal energy	0.45	–	0.59	.61
Eigenvalues	5.20	2.40	1.05	
% Variance	37.16	17.13	7.52	

[a] **SMC** = **squared multiple correlation**

employed the diverse resources they brought to their goal pursuit, the stronger their sense of volunteer role development. Finally, the volunteers' role development and agency attachment were quite strongly correlated ($r = .67$); it stands to reason that volunteers who reported a strong sense of volunteer role development from volunteering should also feel strongly attached to their host agency as the sponsor of these benefits.

Contributions of Volunteers' Goals and Resources to Benefits

To test our two hypotheses concerning the contribution of the volunteers' goals and resources to their agency attachment and role development, we conducted separate regression analyses (see Table 4; Cohen, Cohen, West, & Aiken, 2003). For the prediction of agency attachment, the demographic and health-related control variables were entered as the first step, followed by the measure of goal selection and the three personal resource dimensions on the second and third steps respectively. The control variables accounted for a significant portion of the variability in agency attachment ($R^2 = .14$, $F(5, 94) = 2.95$, $p < .05$). Gender was a significant predictor of agency attachment ($\beta = .28$, $t(84) = 2.73$, $p < .01$), with women displaying more agency attachment than men. Gender uniquely accounted for 7 per cent of the variance in agency attachment. General mental health was also a significant predictor of agency attachment ($\beta = -.22$, $t(94) = -2.25$, $p < .05$), accounting for 5 per cent of the variance. Counterintuitively, those volunteers with better mental health had less agency attachment; one interpretation being that they depended less on their volunteer work for their psychological well-being. As hypothesized on the basis of the SOC theory – that stronger attraction to multiple goals is adaptive – the addition of the strength of goal pursuit in the second step made a significant contribution to agency attachment over and above the control variables ($\Delta R^2 = .09$, $F(6, 93) = 4.61$, $p < .001$), accounting for 9 per cent of the variability in the model. In step three, with the three personal-resource dimensions added, the model accounted for 35 per cent of the variability in agency attachment ($\Delta R^2 = .12$, $F(9, 90) = 5.39$, $p < .001$). As hypothesized by socio-emotional selectivity theory, the set of resources reflecting the volunteers' social skills and prosocial attitudes was the sole predictor of agency attachment ($\beta = .33$, $t(90) = 3.62$, $p < .001$) and uniquely accounted for 9 per cent of the variance.

Similarly, the volunteers' role development scores were regressed onto the strength of their goal pursuit and personal resources. In step one, the control variables did not account for significant variability in volunteer role development ($R^2 = .08$, $F(5, 94) = 1.59$, $p = .17$). Multiple goal pursuit was a significant predictor of volunteer role development, ($\beta = .36$, $t(93) = 3.63$, $p < .001$), uniquely accounting for 11 per cent of the variance. When the three sets of personal resources were entered in step three, the overall model accounted for 34.8 per cent of the variability in volunteer role development ($\Delta R^2 = .16$, $F(9, 90) = 5.33$, $p < .001$). Here, too, the participants' prosocial attitudes significantly predicted their volunteer role development ($\beta = .27$, $t(90) = 2.89$, $p < .01$), uniquely accounting for 6 per cent of the variance. In addition, executive/management skills

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Table 3: Correlations among study variables ($n = 100$)[a]

Variables	*M*	*SD*	α	Goal Selection	Prosocial Attitudes	Executive Skills	Cognitive-Physical Resources	Agency Attachment	Volunteer Role Development
Goal Pursuit Strength	43.14	9.84	.89						
Resource Optimization									
Prosocial attitudes	22.87	2.37	.83	0.22*	–				
Executive skills	6.75	3.42	.79	0.17*	0.00	–			
Cognitive-Physical resources	12.06	2.92	.75	0.31**	0.00	0.00	–		
Outcome Variables									
Agency attachment	21.20	2.79	.80	0.38**	0.37**	0.19*	0.16	–	
Volunteer role development	52.51	5.59	.81	0.38**	0.25**	0.24**	0.29**	0.67**	–

[a]Listwise deletion was employed. Control variables are not included. *$p < .05$; **$p < .01$ α = Chronbach's alpha

significantly predicted volunteer role development (β = .27, $t(90) = 2.95$, $p < .01$), as did cognitive and physical resources (β = .25, $t(90) = 2.54$, $p < .05$). Executive/management skills uniquely accounted for 6 per cent; cognitive and physical resources accounted for 5 per cent of the variance in the volunteers' role development. We found no significant interactions between selection and the three resource dimensions as predictors of the criterion variables.

Discussion

Broadly based on the SOC meta-theory of lifespan development (Baltes & Baltes, 1990), and specifically informed by socio-emotional selectivity theory (Carstensen et al., 1999), our findings are that older adults who bring numerous meaningful goals to their volunteer work are more strongly attached to their host agency and experience higher levels of volunteer role development.

Moreover, these findings support past research showing that restricting the total number of goals an individual pursues is not as beneficial as selecting a number of interrelated goals that are central to a superordinate purpose (Riediger & Freund, 2006). The adoption of multiple goals is adaptive also because it provides insurance in case some goals are unattainable. For example, a volunteer with multiple goals who fails to achieve the goal of making new friends can fall back on the goal of helping others.

In drawing on socio-emotional selectivity theory (Carstensen et al., 1999), we sought to assess whether the social-expressive skills of older adult volunteers have the salience the theory postulates. Our results indicate that, of the three types of resources marshaled by the volunteers, their prosocial attitudes alone contribute to their agency attachment. The same attitudes, in combination with their physical resources and executive management skills, contribute to their volunteer role development. Our interpretation of these findings is that the friendliness, goodwill, and interpersonal skills that underlie the volunteers' prosocial resources are highly adaptive in their interactions with the host agency staff and with the clients they visit, and to whom they provide meals and transportation. However, as important as these social skills are, the work itself requires more than hospitable attitudes; it also calls for the optimization of the volunteers' physical strength and stamina as well as the management skills to get the job done. In short, while employment of all three sets of resources contributes to the meaningfulness of their volunteer work, thereby fostering their role development, their prosocial attitudes uniquely bear on their attachment to the host agencies where they work.

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Table 4: Hierarchical regression results for agency attachment and volunteer role development (n = 100)[a]

Variable	Agency Attachment				Volunteer Role Development			
	b	***SE b***	β	Δ R^2	***b***	***SE b***	β	ΔR^2
Step 1				.14				.08
Age	0.05	0.04	.13		0.17	0.09	.24	
Gender	1.57	0.57	.28**		–0.17	1.19	–.02	
Months volunteering	–0.002	0.003	–.08		–0.00	0.007	–.001	
Physical functioning	–0.002	0.06	–.004		0.002	0.12	.002	
Mental health	–0.20	0.09	–.22*		–0.32	0.19	–.18	
Step 2				.09				.11
Age	0.02	0.04	.04		0.10	0.08	.14	
Gender	1.33	0.55	.23		–0.70	1.13	–.06	
Month volunteering	0.000	0.003	–.02		.004	0.007	.07	
Physical functioning	–0.001	0.05	–.002		.004	0.109	.004	
Mental health	–0.15	0.09	–.16		–0.19	0.18	–.11	
Goal selection (pursuit strength)	0.09	0.03	.32**		0.20	0.06	.36**	
Step 3				.12				.16
Age	0.05	0.04	.13		0.17	0.08	.24	
Gender	1.04	0.53	.18		–1.10	1.07	–.10	
Months volunteering	–0.001	0.003	–.03		0.004	0.006	.07	
Physical functioning	–0.01	0.05	–.02		–0.04	0.10	–.04	
Mental health	–0.20	0.08	–.22		–0.25	0.17	–.14	
Goal selection	0.05	0.03	.16		0.09	0.06	.15	
Resource optimization								
Prosocial attitudes	0.93	0.26	.33**		1.49	0.52	.27**	
Executive skills	0.39	0.25	.14		1.49	0.50	.27**	
Cognitive-physical Resources	0.42	0.27	.15		1.38	0.54	.25**	

[a]Listwise deletion was employed. *$p < .05$; **$p < .01$
b **= Unstandardized coefficients**
SE b **= Standards error**
β = **Standardized coefficients**
ΔR^2 = **R^2 change**

The evidence that all three sets of personal resources predicted volunteer role development suggests that older adults who put their "heart and soul" into volunteering reap the greatest benefits. Perhaps the same processes of resource investment are implicated in the longer-term morale and health benefits documented in the preceding literature review. Longitudinal research is needed to determine if attainment of the proximal benefits reported here mediates the distal gains in the volunteers' health, morale, and survival (Adelmann, 1994; Musick & Wilson, 2003; Oman et al., 1999; Wheeler et al., 1998). However, whether or not the current findings explain the psychological and behavioral mechanisms that underlie the long-term protective effects of volunteer work, they illuminate a developmental process that is instructive in its own right: they reveal how the interrelated processes of goal setting and resource allocation and investment among older adult volunteers foster adaptive outcomes at the individual and community levels. These findings also add to the growing corpus of research revealing that goal pursuit and resource mobilization can be examined in domain-specific ways to aid in understanding how older adults adapt and achieve developmental success in various activity settings (e.g., Abraham & Hansson, 1995; Gignac et al., 2002). Investigation of other activities that are popular among older adults, such as participation in social clubs, elderhostel activities, late life learning (e.g., University of the Third Age), and sports, may shed light on other adaptive outcomes that arise from a selective emphasis on domain-specific social goals and resources.

Our study contributes to the field of volunteerism in several ways. It identifies three types of resources that managers of volunteers can assess when they recruit and assign older adults to different positions. Practically, these resources can be employed as self-assessment tools by would-be older adult volunteers, as can the measure of goals help to identify and even broaden prospective volunteers' priorities. For example, if older adults are presented with a slate of goals for volunteering prior to starting, then they might select and strive to achieve more goals, thereby contributing to their volunteer role development and agency attachment. In addition, our contextually specific measures of volunteer role development and agency attachment could be

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used as short-term outcome criteria when managers meet with volunteers for their performance reviews. Moreover, retention may improve when managers underscore the value they and their clients place on the volunteers' diverse talents and resources. Retention is paramount to the achievement of the vaunted longer-term health and morale benefits of volunteer work.

Finally, our study is limited by a relatively small sample of older adult volunteers who may not be representative of their age group's involvement in diverse types of volunteer work. The absence of a comparison group of younger volunteers and the cross-sectional design of the study also limit the conclusiveness of the findings. On the former score, a younger sample would allow us to compare and draw firmer conclusions about the goals and resources that are common and unique to younger and older age groups of volunteers. Other research has revealed that the two cohorts differ in their goals for volunteering (Okun & Schultz, 2003) but has not addressed resource differences. Nevertheless, even without a comparison group, our study not only sheds light on the developmental significance of volunteer work for older adults but also has important practical implications for older adults' role development and the length of older adults' tenure in this avenue of civic participation.

A second limitation is that, like researchers of other cross-sectional studies, we were unable to bring a true process perspective to bear on the volunteers' developmental regulation. Our data only model relationships that require prospective study and therefore do not speak to matters of temporal ordering. For example, it is possible that agency attachment and volunteer resource mobilization are reciprocally and cyclically related; the more attachment, the more resource investment, and the greater the subsequent attachment. It is also possible that a third variable is implicated in the relationship, an example being the influence of a particularly supportive agency staff member on both the volunteers' attachment and their resource investment. Furthermore, we have not faithfully modelled the fluid nature of the goal pursuit and resource mobilization process in the context of the volunteer experience. To do so would require more intensive prospective approaches, such as that involved with a volunteer's keeping a diary. However, by examining goal pursuit and personal resource utilization in the natural environment, and among older adults who have freely chosen to engage in volunteer work, we believe we have brought a measure of ecological validity that makes this investigation relevant to both the field of volunteerism and the broader study of late-life development.

Notes

1 Items above .3 are displayed. PCAs were also conducted after normalizing the data using *z*-scores and after specifying a promax rotation as well. The results were essentially the same as those reported here.

References

Abraham, J.D., & Hansson, R.O. (1995). Successful aging at work: An applied study of selection, optimization, and compensation through impression management. *The Journals of Gerontology. Series B, Psychological Sciences and Social Sciences*, *50B*, P94–P103.

Adelmann, P.K. (1994). Multiple roles and psychological well-being in a national sample of older adults. *The Journals of Gerontology. Series B, Psychological Sciences and Social Sciences*, *49*, S277–S285.

Baltes, P.B., & Baltes, M.B. (1990). Psychological perspectives on successful aging: The model of selective optimization with compensation. In P.B. Baltes, & M.M. Baltes (Eds.), *Successful aging: Perspectives from the behavioral sciences* (pp. 1–34). Cambridge, UK: Cambridge University Press.

Baumeister, R.F. (1991). *Meanings of life*. New York: Guilford Press.

Carstensen, L.L., Isaacowitz, D.M., & Charles, S.T. (1999). Taking time seriously: A theory of socioemotional selectivity. *American Psychologist*, *54*, 165–181.

Chappell, N.L., & Prince, M.J. (1997). Reasons why Canadian seniors volunteer. *Canadian Journal on Aging*, *16*, 336–353.

Chawla, A. (2005). *Retention versus turnover: Opposite side of the same coin? Comparing employees' agency attachment to their turnover intentions*. Unpublished doctoral dissertation. University of Guelph, Guelph, Ontario, Canada.

Clary, E., Snyder, M., Ridge, R., Copeland, J., Stukas, A., Haugen, J., et al. (1998). Understanding and assessing the motivations of volunteers: A functional approach. *Journal of Personality and Social Psychology*, *74*, 1516–1530.

Cohen, J., Cohen, P., West, S.G., & Aiken, L.S. (2003). *Applied multiple/regression correlation analysis for the behavioral sciences* (3rd ed.). Mahwah, NJ: Erlbaum.

Fisher, J., & Cole, K. (1993). *Leadership and management of volunteer programs*. San Francisco, CA: Jossey-Bass Publishers.

Fredrickson, B.L., & Carstensen, L.L. (1990). Choosing social partners: How old age and anticipated endings make people more selective. *Psychology and Aging*, *5*, 335–347.

Freund, A.M., & Baltes, P.B. (1998). Selection, optimization, and compensation as strategies of life management: Correlations with subjective indicators of successful aging. *Psychology and Aging*, *13*, 531–543.

Freund, A.M., & Baltes, P.B. (2000). The orchestration of selection, optimization, and compensation: An action-theoretical conceptualization of a theory of developmental regulation. In W.J. Perrig, & A. Grob (Eds.),

Control of human behavior, mental processes, and consciousness (pp. 35–58), Philadelphia, PA: Lawrence Erlbaum.

Freund, A.M., Li, K.Z.H., & Baltes, P.B. (1999). Successful development and aging: The role of selection, optimization, and compensation. In J. Brandtstädter, & R.M. Lerner (Eds.), *Action and self-development: Theory and research through the lifespan* (pp. 401–434). Thousand Oaks, CA: Sage.

Freund, A.M., & Riediger, M. (2002). Successful aging. In R.M. Lerner, A. Easterbrooks, & J. Mistry (Eds.), *Handbook of psychology, Volume 6: Developmental Psychology* (pp. 601–628). New York: Wiley.

Gignac, M.A.M., Cott, C., & Badley, E.M. (2002). Adaptation to disability: Applying selective optimization with compensation to the behaviors of older adults with osteoarthritis. *Psychology and Aging*, *17*, 520–524.

Gottlieb, B.H., & Shera, W. (2009). *Findings of the Ontario provincial survey of managers of volunteers in the community support sector*. Guelph, Ontario, Canada: Department of Psychology, University of Guelph.

Harris, A.H.S., & Thoresen, C.E. (2005). Volunteering is associated with delayed mortality in older people: Analysis of the Longitudinal Study of Aging. *Journal of Health Psychology*, *10*, 739–752.

Lang, F.R., & Carstensen, L.L. (1994). Close emotional relationships in late life: Further support for proactive aging in the social domain. *Psychology and Aging*, *9*, 315–324.

Luoh, M.C., & Herzog, A.R. (2002). Individual consequences of volunteer and paid work in old age: Health and mortality. *Journal of Health and Social Behavior*, *43*(4), 490–509.

Millette, V., & Gagne, M. (2008) Designing volunteers' tasks to maximize motivation, satisfaction and performance: The impact of job characteristics on volunteer engagement. *Motivation and Emotion*, *32*, 11–22.

Musick, M.A., & Wilson, J. (2003). Volunteering and depression: The role of psychological and social resources in different age groups. *Social Science & Medicine*, *56*(2), 259–269.

Okun, M.A., & Schultz, A. (2003). Age and motives for volunteering: Testing hypotheses derived from socioemotional selectivity theory. *Psychology and Aging*, *18*(2), 231–239.

Oman, D., Thoresen, C.E., & McMahon, K. (1999). Volunteerism and mortality among the community-dwelling elderly. *Journal of Health Psychology*, *4*(3), 301–316.

Omoto, A.M., Snyder, M., & Martino, S.C. (2000). Volunteerism and the life course: Investigating age-related agendas for action. *Basic and Applied Social Psychology*, *22*(3), 181–197.

Park, N., Park, M., & Peterson, C. (2010). When is the search for meaning related to life satisfaction? *Applied Psychology: Health and Well-Being*, *2*(1), 1–13.

Riediger, M., & Freund, A.M. (2004). Interference and facilitation among personal goals: Differential associations with subjective well-being and persistent goal pursuit. *Personality and Social Psychology Bulletin*, *30*, 1511–1523.

Riediger, M., & Freund, A.M. (2006). Focusing and restricting: Two aspects of motivational selectivity in adulthood. *Psychology and Aging*, *21*, 173–185.

Riediger, M., Freund, A., & Baltes, P. (2005). Managing life through personal goals: Intergoal facilitation and intensity of goal pursuit in younger and older adulthood. *Journals of Gerontology. Series B, Psychological Sciences and Social Sciences*, *60*(2), 84–91.

Statistics Canada. (2009). *Highlights from the 2007 Canada survey of giving, volunteering, and participating*. (Statistics Canada, Publication No. 71-542-XIE). Ottawa, ON: Minister of Industry.

Steger, M.F., Oishi, S., & Kashdan, T.B. (2009). Meaning in life across the life span: Levels and correlates of meaning in life from emerging adulthood to older adulthood. *The Journal of Positive Psychology*, *4*(1), 43–52.

Thoits, P.A., & Hewitt, L.N. (2001). Volunteer work and well-being. *Journal of Health and Social Behavior*, *42*, 115–131.

Ware, J., Snow, K., Kosinski, M., & Gandek, B. (1993). *SF-36 health survey: Manual and interpretation guide*. Lincoln, RI: QualityMetric Inc.

Wheeler, J.A., Gorey, K.M., & Greenblatt, B. (1998). The beneficial effects of volunteering for older volunteers and the people they serve: A meta-analysis. *International Journal of Aging & Human Development*, *47*(1), 69–79.