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Value-Expressive Volunteer Motivation and Volunteering by Older Adults: Relationships With Religiosity and Spirituality

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Abstract

Objectives. This study investigates the interplay among religiosity, spirituality, value-expressive volunteer motivation, and volunteering. We examined religiosity and spirituality as predictors of value-expressive volunteer motivation and volunteering and whether religiosity moderated the relations between (a) spirituality and value-expressive volunteer motivation and (b) value-expressive volunteer motivation and volunteering.

Method. After applying multiple imputation procedures to data from the Wisconsin Longitudinal Study among participants 64–67 years old who survived beyond 2004 (N = 8,148), we carried out regression analyses to predict value-expressive volunteer motivation and volunteering from religiosity and spirituality controlling for demographic variables, physical, emotional, and cognitive health, health risk behaviors, and personality traits.

Results. Both religiosity and spirituality were significant (p < .001) positive predictors of value-expressive volunteer motivation. Value-expressive volunteer motivation and religiosity were significant (p < .001) positive predictors, whereas spirituality was a significant (p < .001) negative predictor, of volunteering. Religiosity amplified the relation between value-expressive volunteer motivation and volunteering (p < .05) but did not moderate the relation between spirituality and value-expressive volunteer motivation (p > .45).

Discussion. Religiosity may provide the way, and value-expressive volunteer motivation the will, to volunteer. The implications of our findings for the forecasted shortage of older volunteers are discussed.

Key Words: Older adults—Religiosity—Spirituality—Value-expressive motivation—Volunteering

Organizational volunteering by older adults has been depicted as a win–win endeavor. In the United States, older adults make a substantial economic contribution via volunteer work (Choi & Chou, 2010). In 2012, 24% of adults aged 65 and older in the United States volunteered and the median number of hours donated by older volunteers was 90 hr
In 2012, each hour of volunteer work was valued at $22.14 (Independent Sector, 2013). Furthermore, the recipients of services provided by older volunteers have been shown to benefit with respect to their quality of life (Gottlieb & Gillespie, 2008).

Additionally, a growing corpus of studies has documented the health-related benefits that older adults accrue from organizational volunteering. More specifically, controlling for several potential confounding variables, relative to older non-volunteers, older volunteers are advantaged in terms of emotional health (Grimm, Spring, & Dietz, 2007), physical health (Von Bonsdorff & Rantanen, 2011), and longevity (Okun, Yeung, & Brown, 2013). In light of these findings, the U.S. government has provided support for increasing the opportunities for older adults to volunteer (Corporation for National & Community Service, 2012).

Despite these positive benefits, it is forecasted there will be a severe shortage of volunteers in the future (Gottlieb & Gillespie, 2008). Moreover, results have been mixed as to whether prosocial behaviors remain constant or begin to decline among older adults (Engel, 2011; Rieger & Mata, 2013). Thus, it is important to understand the factors that affect whether older adults volunteer. A recent study of volunteering among older adults in Korea indicates that religion may be an important cultural factor positively related with volunteering (Kim, Kang, Lee, & Lee, 2007). As discussed ahead, and as shown in Figure 1, there are a number of different possible relationships among religious participation and spirituality on the one hand and value-expressive volunteer motivation and volunteering on the other hand. This study is designed to examine the interplay among religiosity, spirituality, value-expressive volunteer motivation, and volunteering with an eye toward increasing our understanding of the dynamics of being an older adult volunteer.

Religiosity and Spirituality

Religiosity and spirituality are related but distinct constructs (Dy-Liacco, Piedmont, Murray-Swank, Rodgerson, & Sherman, 2009). Religiosity is associated with the pursuit of the sacred via the public realm of membership in religious institutions, participation in formal rituals, and adherence to official denominational doctrines (Burris, Sauer, & Carlson, 2011). In contrast, spirituality involves a reference to transcendence but not necessarily to God as defined within religious traditions and to an individual’s connection with the Divine without necessarily referring to affiliation with a particular religious institution or group (Saroglou & Munoz-Garcia, 2008). Thus, compared with religiosity, spirituality may involve more individualistic pathways toward the sacred. Although people who are religious are also typically spiritual, individuals can be spiritual without being religious.

In previous studies, religiosity has been a significant predictor of volunteering by older adults, whereas spirituality has not (Wilson & Musick, 1997). Religiosity may be a stronger predictor of volunteering than spirituality among older adults because churches provide opportunities for both giving and receiving social support, especially for those with frequent attendance (Hayward & Krause, 2013). Indeed, religious groups often explicitly ask their members to volunteer and being asked is the primary trigger of the decision to engage in volunteer work (Smith, 1994).

Value-Expressive Volunteer Motivation

Motives reflect the tendency to strive for a general class of incentives that are emotionally salient (McClelland, 1985). Clary and coworkers (1998) identified six classes of motives for volunteering (career enhancement, learning new skills, social interaction, escape from negative feelings, personal development, and expression of prosocial values). Of these motives, value-expressive motives have the strongest conceptual link to volunteering because it taps into the endorsement of care-based values to voluntarily assist others (Carlo, Okun, Knight, & de Guzman, 2005). Empirically, value-expressive volunteer motivation is positively related to volunteering (Penner & Finkelstein, 1998).

![Figure 1. Hypothesized model of the relationships among religiosity, spirituality, value-expressive volunteer motivation, and volunteering.](image-url)
and is posited to be a proximal antecedent of volunteering (Carlo et al., 2005). Because nearly all religious and spiritual belief systems promote prosociality and the value of benevolence (Dovidio, Piliavin, Schroeder, & Penner, 2006; Schwartz & Huisman, 1995), religiosity and spirituality alike should be positive predictors of value-expressive volunteer motivation.

Religiosity as a Moderator

In studies of the factors that are related to value-expressive volunteer motivation and volunteering, researchers have focused on religiosity as an additive predictor. Consequently, there is a lack of research investigating the possibility that religiosity moderates the relations between predictors of (a) value-expressive volunteer motivation and (b) volunteering among older adults. In this study, we address this gap in the literature by examining whether religiosity moderates the relations between (a) spirituality and value-expressive volunteer motivation and (b) value-expressive volunteer motivation and volunteering.

Spirituality may be positively associated with expressing humanitarian concerns as a volunteer motive, but this relation may be strengthened when combined with religiosity. The association between spirituality and value-expressive volunteer motivation may increase as religiosity increases because the injunctive social norms of religious institutions amplify the incentive value of helping others less fortunate than oneself.

Value-expressive volunteer motivation may provide the will to volunteer. However, because churches afford numerous opportunities for their members to engage in volunteer work (Omoto & Schlehofer, 2007), religiosity may provide the way. Thus, the relation between value-expressive volunteer motivation and volunteering may be stronger among individuals who are high as opposed to low in religiosity.

The Current Study

Figure 1 summarizes the hypotheses that were tested in this study. According to the first hypothesis, value-expressive volunteer motivation (Pathway 1a) and religiosity (Pathway 1b) are each expected to be positively and significantly associated with volunteering. Our second prediction is that religiosity (Pathway 2a) and spirituality (Pathway 2b) are significantly and positively associated with value-expressive volunteer motivation. Combining the first two predictions, we expect that the change in the predicted probability of volunteering will be significant for a change in value-expressive volunteer motivation corresponding to (a) the unstandardized regression coefficient for predicting value-expressive volunteer motivation from spirituality and (b) the unstandardized regression coefficient for predicting value-expressive volunteer motivation from religiosity.

Our third prediction is that religiosity will significantly moderate the associations between (a) spirituality and value-expressive volunteer motivation (Pathway 3a) and (b) value-expressive volunteer motivation and volunteering (Pathway 3b). To control for the possibility that the hypothesized effects on volunteering are due to confounding variables, we also included a variety of demographic, health, and individual differences variables in our analyses.

Method

Sample

This study used data from the Wisconsin Longitudinal Study (WLS), which consisted of adolescents who graduated from high schools in the state of Wisconsin in 1957. Ethnic minorities were underrepresented. For the purpose of this study, we defined our sample as the 8,148 respondents (out of 10,317) who survived beyond 2004, the year the questions on volunteer motivation and behavior were asked.

Dependent Variables

Volunteering

In 2004, respondents were asked whether they had volunteered within the past 10 years, and if so, whether they had volunteered in the past year. Participants who answered yes to both questions were assigned a value of 1 on volunteering, whereas those that did not were assigned a value of 0 (0 = did not volunteer in the past year, 1 = volunteered in the past year).

Value-expressive volunteer motivation

In 2004, respondents were asked to rate several reasons why they volunteered (or would volunteer, for those who had not volunteered) taken from the Volunteer Functions Inventory (Clary et al., 1998). Two items focused on value-expressive volunteer motivation (“I feel compassion toward people in need” and “I feel it is important to help others”). Responses were assessed on a 7-point scale from 1 = “not at all important/accurate for you” to 7 = “extremely important/accurate for you.” A scale score was formed by computing the mean of the participant’s responses to these two items ($M = 5.02, SD = 1.55$). The two items were correlated .76.

Predictor Variables

Religiosity

From the 2004 interview, three items were used to assess religiosity: (a) frequency of religious attendance in the past year with responses coded on a 12-point scale with anchor points of never, or less than once per year (coded 0) and approximately once per day (coded 11); (b) level of involvement in church groups, not church itself, with responses made on a 5-point scale, with anchor points of not involved (coded 1) and a great deal (coded 5); and (c) level of involvement in church/temple/other place of
worship with responses made on a 5-point scale, with anchor points of not involved (coded 1) and a great deal (coded 5). After standardizing the ratings of the three items, we computed the mean of the participant’s responses. The coefficient alpha for this scale was 0.77 (SD = 0.90).

Spirituality
From the 2004 interview, two items were used to assess spirituality: (a) How spiritual are you? and (b) How important is spirituality in your life? Participants responded to both questions on a scale ranging from 1 (not at all) to 5 (extremely). We computed the mean of the participant’s responses to the two items (M = 3.56, SD = 0.91). The correlation between the two spirituality items was .86.

Control Variables
Demographic variables included age in years in 2004 (M = 65.15, SD = 0.50), gender (0 = female, 1 = male; 47% male), marital status in 2004 (0 = not married, 1 = married; 78% married), work status in 2004 (0 = not working for pay, 1 = working for pay; 44% working for pay), number of years of education in 2004 (M = 13.66, SD = 2.31), and 2004 net worth in dollars divided by 1,000 (M = 608, SD = 1209.91).

Personality traits were assessed in 2004 using an abbreviated version of the Big Five Inventory (John, Donahue, & Kentle, 1991) that consisted of 30 items (six items per trait). Items were rated on a 6-point scale with anchor points of 1 = agree strongly and 6 = disagree strongly. Scale scores were created by summing the ratings on the six items. Coefficient alphas for these scales ranged from 0.62 (openness) to 0.75 (extraversion). The means and standard deviations for the scale scores were agreeableness (M = 28.45, SD = 4.57), conscientiousness (M = 28.50, SD = 4.41), extraversion (M = 22.46, SD = 5.33), neuroticism (M = 15.03, SD = 4.65), and openness to experience (M = 21.01, SD = 4.83). Perceived availability of social support was assessed in 2004 by asking respondents whether anyone in their lives was available to lend them money, give them advice and encouragement, help them with house and yard work, provide them with help with transportation and errands, and give them physical care if they needed it. Each item was coded 0 = no and 1 = yes, and the responses were summed to create a total perceived availability of social support score. The mean and standard deviation for the total scores were 4.69 and 0.69, respectively.

Self-reported physical health was assessed via three measures in 1992. Self-rated health was assessed on a 5-point scale with anchor points of 1 = poor and 5 = excellent (M = 4.17, SD = 0.63). Functional limitation was assessed by respondents’ self-report of whether they ever had any long-term physical or emotional conditions, illnesses, or disabilities that limited what they were able to do, either on or off the job (0 = no, 1 = yes; 16% functional limitation). Number of diagnosed conditions was a count of whether a medical professional had ever told respondents that they had each of 17 conditions: anemia, asthma, arthritis/rheumatism, bronchitis/emphysema, cancer, chronic liver trouble, diabetes, serious back trouble, heart trouble, high blood pressure, circulation problems, kidney or bladder problems, ulcers, allergies, multiple sclerosis, colitis, or some other illness or condition. The mean and standard deviation for the total score were 1.03 and 1.25, respectively.

Emotional and cognitive health variables were assessed with three variables. In 1992, emotional health was assessed by asking respondents whether they had a history of depression (0 = no, 1 = yes; 23% yes). In 2004, cognitive health was assessed with two tasks. First, participants were asked to recall a list of 10 words (M = 6.11, SD = 1.76). Second, participants were asked to generate in 60 s as many words as possible that began with a specific letter (M = 11.29, SD = 4.35).

Risk factors were assessed in 1992. They included body mass index (BMI; M = 26.77, SD = 4.49) and whether respondents had a history of smoking (0 = no, 1 = yes; 54% yes) and drinking (0 = no, 1 = yes; 73% yes).

Results
Multiple Imputation Procedure
Multiple imputation procedures were used to handle the missing data in the WLS. Multiple imputation enhances both accuracy of the estimates and power of the analyses relative to other missing data handling methods (Schafer & Graham, 2002). We used SPSS 20 to generate 50 imputed data sets with 200 iterations separating each saved data set. Consistent with recommendations from the methodological literature, the imputation model included all variables used in the analyses (including interaction terms) and an additional questionnaire item (auxiliary variable) associated with spirituality and religiosity. While diagnosing convergence of the imputation algorithm, we determined that the income variable (expressed in dollars) was producing numerical problems related to the fact that its variance was dramatically larger than those of other variables in the imputation model. We eliminated this problem by expressing income in units of $1,000 (i.e., dividing income in dollars by 1,000). Simple linear transformations such as this are recommended in the methodological literature as a method for achieving better numeric results (e.g., Bentler, 2006, p. 27). Importantly, this transformation has no bearing on the subsequent significance tests and simply changes the estimated regression coefficient and its standard error by a multiplicative constant. After creating the 50 imputed data sets, we estimated the regression models for each data set and used the standard pooling formulas from Rubin (1987) to generate point estimates and standard errors.

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Correlations

We examined the bivariate associations among the main study variables. Religiosity \(^{r} = .37\), spirituality \(^{r} = .20\), and value-expressive volunteer motivation \(^{r} = .27\) were positively correlated with being a volunteer \((p < .001 \text{ for all variables})\). Also, religiosity \((r = .30, p < .001)\) and spirituality \((r = .33, p < .001)\) were positively correlated with value-expressive volunteer motivation and with each other \((r = .57, p < .001)\).

Overview of Regression Analyses

The regression analyses were carried out using SPSS. When predicting volunteering in the past year (no vs. yes), we used logistic regression, and when we predicted value-expressive volunteer motivation scores, we used multiple regression. The control variables included in both analyses were age in years, gender, marital status, working status, education in years, net worth, number of diagnosed conditions, self-rated health, functional limitation, history of smoking, history of drinking, history of depression, BMI, recall of word list, letter fluency, extraversion, conscientiousness, agreeableness, neuroticism, openness to experience, and perceived availability of social support. For the binary control variables, the reference groups were female for gender, not married for marital status, not employed for employment status, no functional limitation for functional limitation, not smoking for smoking, not drinking for drinking, and not depressed for depressed.

Prior to carrying out these analyses, we centered the religiosity, spirituality, and value-expressive volunteer motivation scores. Two interaction terms were created by multiplying (a) centered value-expressive volunteer motivation scores by centered religiosity scores and (b) centered spirituality scores by centered religiosity scores. The first interaction term was included in the logistic regression model and the second interaction term was included in the multiple regression model.

Multiple Regression Model

Table 1 summarizes the results of the multiple regression analysis predicting value-expressive volunteer motivation. In support of our hypotheses, both religiosity and spirituality were positive predictors of value-expressive volunteer motivation. As religiosity increased by one point, value-expressive volunteer motivation increased by .284 of one point and as spirituality increased by one point, value-expressive volunteer motivation increased by .277 of one point \((p < .001)\). Although we predicted that religiosity would moderate the relation between spirituality and value-expressive volunteer motivation,

Table 1. Results From Regression Analysis With Value-Expressive Volunteer Motivation as Criterion

<table>
<thead>
<tr>
<th>Variable</th>
<th>Estimate</th>
<th>SE</th>
<th>(p) Value</th>
<th>Hypothesis</th>
</tr>
</thead>
<tbody>
<tr>
<td>Age in years</td>
<td>.004</td>
<td>0.037</td>
<td>.913</td>
<td>—</td>
</tr>
<tr>
<td>Gender (male)</td>
<td>−.254</td>
<td>0.041</td>
<td>&lt;.001*</td>
<td>—</td>
</tr>
<tr>
<td>Marital status (married)</td>
<td>−.049</td>
<td>0.044</td>
<td>.266</td>
<td>—</td>
</tr>
<tr>
<td>Work status (working)</td>
<td>−.066</td>
<td>0.034</td>
<td>.052</td>
<td>—</td>
</tr>
<tr>
<td>Education in years</td>
<td>.061</td>
<td>0.009</td>
<td>&lt;.001*</td>
<td>—</td>
</tr>
<tr>
<td>Net worth in dollars divided by 1,000</td>
<td>.000</td>
<td>0.000</td>
<td>&lt;.045*</td>
<td>—</td>
</tr>
<tr>
<td>Number of diagnosed conditions</td>
<td>.029</td>
<td>0.018</td>
<td>.108</td>
<td>—</td>
</tr>
<tr>
<td>Self-rated health</td>
<td>−.008</td>
<td>0.037</td>
<td>.823</td>
<td>—</td>
</tr>
<tr>
<td>Functional limitation (yes)</td>
<td>.116</td>
<td>0.053</td>
<td>.028*</td>
<td>—</td>
</tr>
<tr>
<td>History of smoking (yes)</td>
<td>.088</td>
<td>0.043</td>
<td>.040*</td>
<td>—</td>
</tr>
<tr>
<td>History of drinking (yes)</td>
<td>−.066</td>
<td>0.042</td>
<td>.122</td>
<td>—</td>
</tr>
<tr>
<td>History of depression (yes)</td>
<td>.020</td>
<td>0.050</td>
<td>.687</td>
<td>—</td>
</tr>
<tr>
<td>BMI</td>
<td>−.018</td>
<td>0.005</td>
<td>&lt;.001*</td>
<td>—</td>
</tr>
<tr>
<td>Recall of word list</td>
<td>.023</td>
<td>0.014</td>
<td>.099</td>
<td>—</td>
</tr>
<tr>
<td>Letter fluency</td>
<td>.022</td>
<td>0.006</td>
<td>&lt;.001*</td>
<td>—</td>
</tr>
<tr>
<td>Extraversion</td>
<td>.012</td>
<td>0.004</td>
<td>.002*</td>
<td>—</td>
</tr>
<tr>
<td>Conscientiousness</td>
<td>−.005</td>
<td>0.005</td>
<td>.301</td>
<td>—</td>
</tr>
<tr>
<td>Agreeableness</td>
<td>.065</td>
<td>0.004</td>
<td>&lt;.001*</td>
<td>—</td>
</tr>
<tr>
<td>Neuroticism</td>
<td>.016</td>
<td>0.004</td>
<td>&lt;.001*</td>
<td>—</td>
</tr>
<tr>
<td>Openness to experience</td>
<td>.018</td>
<td>0.004</td>
<td>&lt;.001*</td>
<td>—</td>
</tr>
<tr>
<td>Perceived availability of social support</td>
<td>.132</td>
<td>0.027</td>
<td>&lt;.001*</td>
<td>—</td>
</tr>
<tr>
<td>Religiosity (centered)</td>
<td>.284</td>
<td>0.025</td>
<td>&lt;.001*</td>
<td>2a</td>
</tr>
<tr>
<td>Spirituality (centered)</td>
<td>.277</td>
<td>0.026</td>
<td>&lt;.001*</td>
<td>2b</td>
</tr>
<tr>
<td>Religiosity x spirituality</td>
<td>.017</td>
<td>0.023</td>
<td>.455</td>
<td>3a</td>
</tr>
</tbody>
</table>

Notes. See Figure 1 for hypotheses. BMI = body mass index.

*Statistically significant at \( p < .05\).
we found that the spirituality by religiosity interaction effect was not significant ($b = .017, SE = 0.023, p = .455$).

Among the covariates, older adults with a history of smoking and women had higher value-expressive volunteer motivation scores than older adult non-smokers and men. Functional limitation, letter fluency, neuroticism, agreeableness, openness to experience, extraversion, perceived availability of social support, education, and net worth were positively related to value-expressive volunteer motivation scores, whereas BMI exhibited a negative relation with value-expressive volunteer motivation scores.

**Logistic Regression Model**

Table 2 summarizes the results of the logistic regression model predicting volunteering.

Consistent with our predictions, there were positive relations between value-expressive volunteer motivation scores and religiosity scores and volunteering. A one-point increase in value-expressive volunteer motivation was associated with an increase of .258 in the predicted probability of volunteering ($p < .001$). For the religiosity scale, a one-point increase was associated with an increase of .359 in the predicted probability of volunteering ($p < .001$). Unexpectedly, spirituality was a negative predictor of volunteering. A one-point increase on the spirituality scale was associated with a decrease of −.164 in the predicted probability of volunteering ($p < .001$).

As hypothesized, the value-expressive volunteer motivation by religiosity interaction effect also was significant ($p < .040$). Figure 2 depicts the simple slopes for predicting the probability of volunteering by older adults from value-expressive volunteer motivation and religiosity. Among older adults 1 SD below the mean on religiosity, the predicted probability of volunteering was .165 for participants who were 1 SD below the mean on value-expressive volunteer motivation, .214 for participants who were at the mean on value-expressive volunteer motivation, and .272 for participants who were 1 SD above the mean on value-expressive volunteer motivation. Among older adults 1 SD above the mean on religiosity, the predicted probability of volunteering was .484 for participants who were 1 SD below the mean on value-expressive volunteer motivation, .603 for participants who were at the mean on value-expressive volunteer motivation, and .711 for participants who were 1 SD above the mean on value-expressive volunteer motivation.

Among the covariates, working, a history of drinking, education, net worth, extraversion, and openness to

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**Table 2. Results From Logistic Regression Analysis With Volunteering as Criterion**

<table>
<thead>
<tr>
<th>Variable</th>
<th>Estimate</th>
<th>SE</th>
<th>p Value</th>
<th>Odds ratio</th>
<th>Hypothesis</th>
</tr>
</thead>
<tbody>
<tr>
<td>Age in years</td>
<td>−.149</td>
<td>0.058</td>
<td>.010*</td>
<td>0.862</td>
<td>—</td>
</tr>
<tr>
<td>Gender (male)</td>
<td>−.068</td>
<td>0.071</td>
<td>.339</td>
<td>0.934</td>
<td>—</td>
</tr>
<tr>
<td>Marital status (married)</td>
<td>.051</td>
<td>0.087</td>
<td>.562</td>
<td>1.052</td>
<td>—</td>
</tr>
<tr>
<td>Work status (working)</td>
<td>.042</td>
<td>0.062</td>
<td>&lt;.001*</td>
<td>1.043</td>
<td>—</td>
</tr>
<tr>
<td>Education in years</td>
<td>.118</td>
<td>0.015</td>
<td>&lt;.001*</td>
<td>1.126</td>
<td>—</td>
</tr>
<tr>
<td>Net worth in dollars divided by 1,000</td>
<td>.000097</td>
<td>0.00025</td>
<td>&lt;.001*</td>
<td>1.000097</td>
<td>—</td>
</tr>
<tr>
<td>Number of diagnosed conditions</td>
<td>−.001</td>
<td>0.032</td>
<td>.969</td>
<td>0.999</td>
<td>—</td>
</tr>
<tr>
<td>Self-rated health</td>
<td>.073</td>
<td>0.061</td>
<td>.231</td>
<td>1.076</td>
<td>—</td>
</tr>
<tr>
<td>Functional limitation (yes)</td>
<td>−.007</td>
<td>0.099</td>
<td>.945</td>
<td>0.993</td>
<td>—</td>
</tr>
<tr>
<td>History of smoking (yes)</td>
<td>−.032</td>
<td>0.065</td>
<td>.625</td>
<td>0.969</td>
<td>—</td>
</tr>
<tr>
<td>History of drinking (yes)</td>
<td>.334</td>
<td>0.149</td>
<td>.028*</td>
<td>1.396</td>
<td>—</td>
</tr>
<tr>
<td>History of depression (yes)</td>
<td>−.040</td>
<td>0.086</td>
<td>.637</td>
<td>0.960</td>
<td>—</td>
</tr>
<tr>
<td>BMI</td>
<td>−.003</td>
<td>0.008</td>
<td>.672</td>
<td>0.997</td>
<td>—</td>
</tr>
<tr>
<td>Recall of word list</td>
<td>.029</td>
<td>0.019</td>
<td>.133</td>
<td>1.029</td>
<td>—</td>
</tr>
<tr>
<td>Letter fluency</td>
<td>.009</td>
<td>0.007</td>
<td>.243</td>
<td>1.009</td>
<td>—</td>
</tr>
<tr>
<td>Extraversion</td>
<td>.032</td>
<td>0.008</td>
<td>&lt;.001*</td>
<td>1.033</td>
<td>—</td>
</tr>
<tr>
<td>Conscientiousness</td>
<td>−.029</td>
<td>0.010</td>
<td>.004*</td>
<td>0.972</td>
<td>—</td>
</tr>
<tr>
<td>Agreeableness</td>
<td>−.001</td>
<td>0.009</td>
<td>.947</td>
<td>0.999</td>
<td>—</td>
</tr>
<tr>
<td>Neuroticism</td>
<td>−.021</td>
<td>0.008</td>
<td>.008*</td>
<td>0.979</td>
<td>—</td>
</tr>
<tr>
<td>Openness to experience</td>
<td>.043</td>
<td>0.009</td>
<td>&lt;.001*</td>
<td>1.044</td>
<td>—</td>
</tr>
<tr>
<td>Perceived availability of social support</td>
<td>−.017</td>
<td>0.050</td>
<td>.734</td>
<td>0.983</td>
<td>—</td>
</tr>
<tr>
<td>Religiosity (centered)</td>
<td>.959</td>
<td>0.046</td>
<td>&lt;.001*</td>
<td>2.609</td>
<td>1b</td>
</tr>
<tr>
<td>Spirituality (centered)</td>
<td>−.164</td>
<td>0.045</td>
<td>&lt;.001*</td>
<td>0.849</td>
<td>—</td>
</tr>
<tr>
<td>Value-expressive volunteer motivation (centered)</td>
<td>.258</td>
<td>0.026</td>
<td>&lt;.001*</td>
<td>1.294</td>
<td>1a</td>
</tr>
<tr>
<td>Religiosity × value-expressive volunteer motivation</td>
<td>.059</td>
<td>0.028</td>
<td>.040*</td>
<td>1.061</td>
<td>3b</td>
</tr>
</tbody>
</table>

Notes. See Figure 1 for hypotheses. For clarity, the estimate, standard error of the estimate, and odds ratio are shown past three decimal places for net worth. BMI = body mass index.

*Statistically significant at $p < .05$. 

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experience were associated with a higher probability of volunteering. In contrast, age in years, neuroticism, and conscientiousness were associated with a lower probability of volunteering.

Changes in the Predicted Probabilities of Volunteering

We computed two indirect effects that represent the change in the predicted probability of volunteering for change in value-expressive volunteer motivation corresponding to the unstandardized regression coefficients from (a) religiosity to value-expressive volunteer motivation and (b) spirituality to value-expressive volunteer motivation. For religion, there was a .0150 change in predicted probability of volunteering for a .284 change in value-expressive volunteer motivation, and for spirituality, there was a .0146 change in predicted probability of volunteering for a .277 change in value-expressive volunteer motivation. Using the joint significance test of mediation (MacKinnon, Lockwood, Hoffman, West, & Sheets, 2002), we conclude that both indirect effects were significant ($p < .001$). Both religiosity and spirituality are positive predictors of value-expressive volunteer motivation, which, in turn, is associated with a higher probability of volunteering.

The significant indirect effects enable us to interpret the interaction effect in Table 2 and graphically depicted in Figure 2 as conditional indirect effects (Preacher, Rucker, & Hayes, 2007). As religiosity increases from $-1\ SD$ to the mean to $+1\ SD$, (a) the indirect effect of religiosity on volunteering via value-expressive volunteer motivation increases from .0091 to .0150 to .0183 and (b) the indirect effect of spirituality on volunteering via value-expressive volunteer motivation increases from .0089 to .0146 to .0179.

Post Hoc Analysis

Because we did not expect spirituality to be a significant negative predictor of volunteering, we carried out an additional hierarchical logistic regression. In Step 1, which included the control variables, spirituality was a significant ($p < .001$) positive predictor of volunteering ($b = .419$). When religiosity was added to the model, spirituality became a significant ($p = .02$) negative predictor of volunteering ($b = -.103$), and its negative relation with volunteering increased in magnitude ($b = -.171$) when value-expressive volunteer motivation was also included in the model ($p < .001$). The change in the sign of the unstandardized logistic regression coefficient for spirituality when religiosity and value-expressive volunteer motivation were included in the model predicting volunteering suggests a type of suppression effect.

Discussion

Researchers studying volunteering by older adults have used Wilson and Musick’s (1997) conceptual framework, which postulates that three types of capital—human, social, and cultural—affect the decision to do volunteer work. Cultural capital entails the resources derived from our values, moral preferences, and religious beliefs that steer our actions toward engaging in good deeds (Wilson & Musick, 1997). This study focused on the interplay of variables subsumed under cultural capital—religiosity, spirituality, and value-expressive volunteer motivation.
Cultural Capital Variables as Predictors of Volunteering

Consistent with previous research, we found that value-expressive volunteer motivation (Penner & Finkelstein, 1998) and religiosity (Butrica, Johnson, & Zedlewski, 2009; Kim et al., 2007) are positive predictors of volunteering. As individuals are more motivated to volunteer by opportunities to express humanitarian values, they are more likely to engage in volunteer work (Carlo et al., 2005). Why should religiosity predict volunteer motivation even after value-expressive volunteer motivation is taken into account? Volunteering is often triggered by requests from others (Smith, 1994), and churches are the leading sponsor of volunteering by older adults (Omoto & Schlehofer, 2007). Thus, controlling for value-expressive volunteer motivation, engagement in organized religion may provide additional opportunities for volunteering.

Contrary to previous studies (Wilson & Musick, 1997), in this study, spirituality was a negative predictor of volunteering. A post hoc analysis revealed that the direction of the relation between spirituality and volunteering shifted from positive to negative when religiosity was included in the logistic regression model and that this negative relation became stronger when value-expressive volunteer motivation was added to the model.

Why is spirituality a negative predictor of volunteering when religiosity and value-expressive volunteer motivation are statistically controlled? First, we note that spirituality was correlated positively with religiosity ($r = .57$) and value-expressive volunteer motivation ($r = .33$) and that both of these variables were significant positive predictors of volunteering. Thus, religiosity and value-expressive volunteer motivation can be thought of as attributes that are positively related to spirituality and that foster volunteering. However, when these variables were held constant in our logistic regression analysis, then spirituality appears to reduce the likelihood of volunteering. This type of suppressor effect may have occurred because, when older adults are equated on religiosity and value-expressive volunteer motivation, spirituality is associated with a preference for solitary and self-focused pursuits such as those related to the enjoyment of nature (Heintzman, 2002) or the attainment of mystical experiences (James, 1902/2002). People engage in many kinds of resource-demanding prosocial activities (Morrow-Howell, 2010) and thus it is also possible that older adults who are spiritual but not religious may be participating in other types of civic activities not measured in the current research.

Interaction Effects Involving Cultural Capital Variables

Studies of prosociality in older adults have yielded mixed results, with some reporting increased prosocial behavior (Engel, 2011) and others showing no change and even a decline (Rieger & Mata, 2013). These results may be partly explained by differences in cultural capital. We have demonstrated that the associations between two cultural capital variables—religiosity and spirituality—and volunteering by older adults are mediated in part by value-expressive volunteer motivation and, moreover, that these indirect effects vary by religiosity. Importantly, volunteering and the role of supportive social networks (such as those associated with religious attendance) are also linked with subjective well-being in older adults (Morrow-Howell, Hinterlong, Rozario, & Tang, 2003; Pilkington, Windsor, & Crisp, 2012). Other research indicates that the reduction in mortality risk associated with volunteering increases as involvement in organized religious activities increases (Okun et al., 2013) and as value-expressive volunteer motivation increases (Konrath, Fuhrel-Forbis, Lou, & Brown, 2012).

Prior research has focused on the additive contributions of cultural capital variables as opposed to their joint contributions to predicting volunteering (McNamara & Gonzales, 2011; Okun & Michel, 2006). In this study, as hypothesized, the value-expressive volunteer motivation by religiosity interaction effect on volunteering was significant ($p < .05$). The difference in the predicted probability of volunteering between those who were high versus low in value-expressive motivation to volunteer was twice as large among older adults 1 SD above the mean on religiosity (.227) compared with older adults 1 SD below the mean on religiosity (.107). One interpretation of this interaction effect is that older adults who are motivated to volunteer by humanitarian concerns are much more likely to engage in organizational volunteering when they also participate extensively in organized religious activities. In other words, value-expressive volunteer motivation increases the probability of volunteering, but this relation, too, is enhanced by religiosity as the church provides numerous opportunities for older adults to engage in volunteer work.

Unexpectedly, religiosity did not moderate the relation between spirituality and value-expressive volunteer motivation. Instead, spirituality and religiosity made additive contributions to predicting value-expressive volunteer motivation. As spirituality and religiosity increase, older adults may possess higher value-expressive volunteer motivation because of their interest in fostering a greater connection with a higher power.

Limitations

The major limitation of this study is the cross-sectional design that does not permit us to rule out alternative models to the one that guided the present study. Based on previous research (Penner & Finkelstein, 1998), we posited that value-expressive volunteer motivation influences volunteering. However, motivation may serve different functions at various stages of a volunteer’s career and reactions to volunteer experiences may affect volunteer motivation (Pushkar, Reis, & Morros, 2002). Thus, engaging in volunteer work may increase value-expressive motivation to volunteer.
Another limitation of this study was that the main study variables were measured with few items. Brief measures run the risk of not capturing important dimensions of constructs. For example, our measures of religiosity and spirituality did not assess private aspects of religiosity such as watching religious television shows (Husaini, Blasi, & Miller, 1999). Finally, the generalizability of our findings was limited by our sample, which was drawn from one cohort with little variation in chronological age and ethnicity.

Future Directions
The results of this study provide a warrant for longitudinal studies in which researchers are able to examine how the relationships among religiosity, spirituality, value-expressive volunteer motivation, volunteering, and health outcomes vary over time. Church attendance is a robust predictor of both volunteering and risk of mortality (Ruitter & De Graaf, 2006; Shor & Roelfs, 2013). Interestingly, our findings indicate that the magnitude of the relationship between church involvement and volunteering appears to be amplified by value-expressive volunteer motivation, and other researchers have demonstrated that the associations between church attendance and self-rated health and mortality risk are stronger among volunteers than non-volunteers (McDougle, Handy, Konrath, & Walk, 2013; Oman, Thoresen, & McMahon, 1999). Furthermore, the reduction in mortality risk associated with volunteering varies with value-expressive volunteer motivation (Konrath et al., 2012). Longitudinal data could be used to model the onset of volunteering in later life and the dynamics of how cultural capital variables influence the health-related consequences of volunteering (McNamara & Gonzales, 2011).

Implications and Conclusion
A “leading edge” question in volunteer research is to identify adequate recruiting strategies targeting older volunteers (Morrow-Howell, 2010). Clary and coworkers (1998) demonstrated that the recruitment of volunteers is enhanced by appeals that match their primary motives for volunteering. When asked why they volunteer, older adults report that their primary motivation is the expression of altruistic values (Okun & Schultz, 2003). Thus, appeals to older adults are most likely to be effective if they are focused on eliciting compassion and on the importance of helping others. Yet, online portals for recruiting volunteers sometimes focus on self-benefits rather than helping others (Konrath et al., 2012). Ironically, self-benefit appeals may be ineffective in recruiting the older volunteers who are primarily motivated by other-focused concerns.

The most important findings of this study were that the relation between value-expressive volunteer motivation and volunteering was magnified by participation in organized religious activities and that controlling for religiosity and value-expressive volunteer motivation, spirituality was negatively related to volunteering. Furthermore, the indirect effect of spirituality on volunteering via value-expressive volunteer motivation decreased as religiosity decreased.

Taken together, these findings suggest that when participants are equated on organized religious activities, spirituality is negatively associated with volunteering. Currently, national studies in the United States reveal that young adults are increasingly identifying themselves as spiritual but not religious (Pew Forum on Religion and Public Life, 2012). Importantly, young adults are also volunteering at a lower rate than older adults (Smith & Snell, 2009). When the current generation of young adults who are eschewing formal religious institutions and embracing informal ecletic forms of spirituality moves beyond middle age, this may bode poorly for the rate of volunteering by older adults in the United States. This scenario is troubling because it has been forecasted that society will need higher rates of volunteering by older adults in the future (Gottlieb & Gillespie, 2008).

In a more optimistic vein, it is possible that the moderating effect of religiosity on the relation between value-expressive volunteer motivation and volunteering reflects a contextual variable as opposed to an individual difference variable. According to Brown, Brown, and Preston (2012), the caregiver behavioral system, which consists of a suite of cognitions, emotions, and underlying neurophysiology that motivate helping, is activated by several features of situations including (a) the interdependence between the helper and the recipient, (b) the authenticity of the helper’s need, and (c) the trustworthiness of the recipient. As participation in organized religious activities increases, older adults are more likely to volunteer for their own church group (Omoto & Schlehofer, 2007). Thus, as religiosity increases, older adults may be volunteering to help individuals who they are interdependent with by virtue of shared religious beliefs. Because religious organizations sponsor many volunteer opportunities, the volunteers know that the need for help is authentic. Finally, the injunctive social norm and moral obligation in religious communities of helping people who are less fortunate indicates that other church members are trustworthy. To the extent that the value-expressive volunteer motivation by religiosity interaction effect is due to features of religious communities that create beliefs regarding the trustworthiness of others, then we can conduct future research on volunteering to provide guidelines for translating the features of religious communities to other communities in which individuals of different faiths and belief systems can interact in ways that promote interdependence, trust, and social and moral norms for helping others.

References


