Volunteers Come From Educated Homes: The Link Between Parents' Level of Education and Their Adult Children's Propensity to Perform Volunteer Work

Erik Petrovski

An individual's level of education has been found to be the single most important predictor of whether one engages in volunteer work. But less often are researchers focused on determining the importance of the level of education of parents. In this study, high-quality Danish administrative register and survey data is used in order to establish a significant link between parents' level of education and an individual's propensity to perform volunteer work. Two significant mediation mechanisms are found to explain the bulk of this relationship: (1) social status transmission and (2) role modelling. Both mediate the relationship to a similar high degree, however, the majority of the effect of parents' level of education comes through social status transmission.

Introduction

When individuals volunteer, they give up some of their own free time in order to provide valuable goods and services for the benefit of their community and the wider society they live in (Wittek & Bekkers 2015). But volunteering is not only beneficial to others, it is also beneficial to the volunteer him or herself in multiple ways. Volunteering may provide a warm glow in exchange for one's good deeds and can be way to gain social approval from others (Andreoni 1990). When one pursues one's interests through volunteering, e.g. a passion for history by volunteering as a museum guide, volunteering may furthermore become a way to achieve self-fulfillment (Thoits & Hewitt 2001). Finally, volunteers may wield sizable political influence on the board of directors at nonprofit organizations (Moore & Whitt 2000) and volunteering may boost one's résumé and professional network (Spera et al. 2015).

In part, because volunteering is so integral to the welfare of volunteers themselves, it is only natural for social researchers—and sociologists in particular—to be concerned with the social profile of individuals who perform volunteer work. Across national contexts, researchers have found that volunteers tend to be high resource members of society: socially well-connected, culturally aware, and above all, highly educated (Musick & Wilson 2008; Wilson 2012; Wilson & Musick 1997). Education is argued to be all-important for volunteering since it is associated with the skills, social connections, and cultural values that enables one to partake in volunteer work (Musick & Wilson 2008).

Much of the research on this topic of so-called "participatory inequality" (van Ingen & van der Meer 2011) has been focused primarily on the influence of the education of the individual him or herself and less so with the educational background of parents (e.g. Musick & Wilson 2008; Schofer & Longhofer 2011; Smith 1994; Wilson 2000). However, as with other activities that are correlated with social status measures such as education, the tendency and resources required to volunteer could be transferred from one generation to the next. Our propensity to volunteer may therefore not just be determined by who *we* are but also who our *parents* are.

In the relevant literature on the intergenerational transmission of volunteer work, there are two distinct pathways through which parental education is argued to influence one's propensity to volunteer. First, reproduction of social status, in which educational attainment, and therefore the resources that enable volunteer work, is transferred from one generation to the next. Second, role modelling, in which highly educated parents are more likely to set an example as volunteers and thereby influence the values of their children towards volunteering (Bekkers 2007).

In order to explore the influence of parents' level of education on the propensity to perform volunteer work, this study utilizes high-quality Danish survey data from 2012, combined with administrative registers on the exact educational background of survey participants and their parents. The theoretical assumptions are tested with mediation analysis, which is performed within a generalized structural equation modelling (SEM) framework.

The empirical model confirms the hypothesis that propensity to perform volunteer work significantly depends on parents' level of education. The significance of the two mediation pathways—social status transmission and social learning—is furthermore confirmed. Specifically, it is found that each year of additional education of parents increases the propensity to perform volunteer work by 1.3 %, given demographic controls. It is found that social status transmission mediates 37 % of this effect and social learning mediates 28 % of this effect.

This article adds to the existing literature on the intergenerational transmission of volunteer work in two ways. First, previous studies have relied on odd non-representative samples (Janoski & Wilson 1995) and subjective measures of education, which may be prone to recall bias (e.g. Bekkers 2007; Janoski & Wilson 1995; Mustillo et al. 2004; Perks & Konecny 2015; Quaranta & Sani 2016). This study introduces better data to the field by using a more representative sample and a very precise measure of education from administrative registers. Second, an appropriate mediation analysis is applied since this allows for determining the significance and strength of different mediation mechanisms—rather than relying on regular regression models with interaction terms that do not explicitly model mediation as previous studies have done (e.g. Bekkers 2007; Janoski & Wilson 1995; Mustillo et al. 2004; Perks & Konecny 2015; Quaranta & Sani 2016).

Education as a Predictor of Volunteer Work

Within sociological studies of volunteer work, there exists a strong focus on those resources that enable volunteering to take place (Einolf & Chambré 2011; Musick & Wilson 2008; Wilson 2000). This focus arises from the assumption that even though volunteer work is unpaid, it is still a productive activity and therefore requires human capital such as skills and knowledge. And because volunteer work involves giving up free time for the benefit of others, it is ethically guided and therefore requires cultural capital such as values and norms. And finally, because volunteer work takes place in groups outside of the home, it is a collective action that requires social capital such as social networks (Wilson & Musick 1997). The argument goes two ways. Firstly, a high resource individual is more likely to feel qualified and therefore consider whether to volunteer. Secondly, voluntary and nonprofit organizations are more likely to seek out high resource individuals that are presumably more productive and less difficult to motivate (Musick & Wilson 2008).

Many specific measures of resources such as occupational status (Smith 1994), extent of social networks (Sokolowski 1996), and generalized trust (Uslaner 2005) have been highlighted as important for volunteer work. Yet education has long been emphasized as the single most important predictor of whether individuals volunteer (Musick & Wilson 2008; Schofer & Longhofer 2011; Smith 1994; Wilson 2000). This is very much true in the case of Denmark, where the most recent population survey shows that 19 % of volunteers have a master's degree compared to 9 % of non-volunteers (Fridberg 2014).

One likely reason why education is so important for the propensity to perform volunteer work is that a high level of education is closely linked to high levels of human, social, *and* cultural capital (Musick & Wilson 2008).

Firstly, education is argued to significantly increase those capital resources required to volunteer and may therefore have so-called *civic returns* (Dee 2004). Increased education indicates high levels of human capital, since education specifically aims to provide individuals with the skills and knowledge that are essential to perform productive activities such as volunteer work (Schultz 1961). Education ties in with cultural capital because education increases our interest and understanding of political, social, and community issues, thus positively impacting our values towards engaging in such issues through volunteer work (Hillygus 2005). And finally, education increases social capital since educational institutions put individuals in contact with other high resource individuals, who are also more likely to be volunteers, and this may increase the likelihood of being asked to volunteer (Musick & Wilson 2008).

Education may *furthermore* be an important predictor for whether one performs volunteer work not for what it does to an individual but due to the kinds of individuals who select into it (Brand 2010; Dee 2004; Hauser 2000; Smith 1994). Not surprisingly, it is individuals who are already rich in human, social, and cultural capital who attend and complete higher education. After all, the education system disproportionally

rewards and attracts young individuals with intellectual ability, knowledge of society and culture, and who are nested in high resource social networks of individuals who also seek to complete higher education (Jæger & Holm 2007).

The Intergenerational Effect of Education

Parents' level of education may influence their children's propensity to perform volunteer work through two distinct pathways: (1) social status transmission and (2) role modelling. Both of these pathways have found broad empirical support in studies across national contexts (Bekkers 2007; Janoski & Wilson 1995; Mustillo et al. 2004; Perks & Konecny 2015; Quaranta & Sani 2016).

The first effect of parents' level of education on performing volunteer work concerns transmission *(or reproduction)* of social status from one generation to the next (Bekkers 2007; Janoski & Wilson 1995). An integral component of social status transmission is the process in which the resources, guidance and expectations of well-educated parents disproportionally enables their children to reach similar high levels of educational attainment (Brooks 2008). Even in a Danish context, where tertiary education is tuition free and students are provided with government stipends, this process is clearly evident as parent's level of education remains one of the top indicators of the educational attainment of children (Jæger & Holm 2007). The social status transmission argument is therefore simply that as children of well-educated parents are likely to become more educated themselves, they inevitably gain access to similar human, cultural, and social resources and may therefore volunteer at a higher rate (Bekkers 2007).

The second effect of parents' level of education concerns role modelling and has its basis in social learning theory (Bandura 1977; Bekkers 2007). Cultural values, such as those that emphasize volunteer work, are learned informally from family, friends and acquaintances and formally through institutions such as school, workplace, and church (Janoski & Wilson 1995). Of these, the family is found to be the most important institution for transferring values as this is where we spend the majority of our formative years (Quaranta & Sani 2016). Since we know that a highly educated parent is likely to have the right resources that enable volunteer work, in part due to their own level of education, it is more likely that they will set an example as volunteers themselves. In doing so, parents become volunteering role models and this is said to influence the values that children hold towards this activity, which may finally influence their future behavior in this regard (Bekkers 2007; Caputo 2009; Janoski & Wilson 1995; Quaranta & Sani 2016; van Goethem et al. 2014). This effect has been found to be sustained, even as children of parents who volunteer grow old (Perks & Konecny 2015).

Data

The data utilized in this study comes from the 2012 Danish Volunteer Survey (Fridberg & Henriksen 2014). The original survey is a representative sample of (n=2,809) individuals living in Denmark, between the ages of 16 and 85. The data collection was conducted primarily as over the phone interviews with the option to opt in for a face-to-face meeting. The response rate is 67 %. Using the personal identification number of survey participants, the survey data was combined with administrative registers in order to obtain the educational background of survey participants and their parents. The data was made available by Statistics Denmark.

Combining survey data with administrative registers gives this study an unusually exact measure of educational background—but it also comes at a cost. The risk of observing missing data for parents to survey participants older than 55 increases dramatically due to lack of record keeping, and there are no data on respondents older than 66. This missing data reduces the valid sample to (n=1,829). The detailed distribution of the missing data is visible in table 1.

Table 1. Missing parental education distributed according to age of child

Age group	n	% missing	% non-missing
16-55	1807	5.15	94.85
56-66	536	78.54	21.46
67+	466	100	0
			n=2,809

Since age is controlled for in this study, the missing data in the 56-66 age range fulfill the requirements of being missing at random (MAR), and it may therefore confidently be assumed that the missing data for individuals in this age rage is ignorable—meaning that effects will be estimated without bias as long as age is held constant (Acock 2005; Allison 2001; Enders 2010; Little & Rubin 2002).

The oldest respondents in the 67+ age rage may only pose a problem for the generalizability of the study if one assumes that there exists confounding factors specific for this particular age group. This may certainly be the case. Therefore, the study does not claim to be generalizable for individuals older than 67 years of age.

Variables of interest

Volunteer work (survey). Respondents have indicated whether they have actively performed volunteer work for a formal organization within the past year. The item was repeated for 14 different volunteer domains, which correspond to the international ICNPO classification (Salamon et al. 2003). Repeating this question in connection with specific volunteer domains—as well as examples of volunteer work within each domain—was intended to reduce recall bias and misunderstanding of what volunteer work entails (Fridberg & Henriksen 2014)

The survey shows a comparatively high rate of volunteering in Denmark at 35 %. Most of this volunteering (88%) takes place within expressive domains such as sports, recreation, politics, and culture, and only comparably little (21%) takes place within social services. This is similar to other countries with universal welfare states (Salamon & Anheier 1998).

Education (register). The key independent variable of interest for this study is education. Self-reported level of education from surveys is often an unreliable measure due to inaccurate recall and the fact that some respondents tend to overestimate their educational background—presumably in an effort to boost their social status (Krumpal 2011). Therefore, this study utilizes data on education obtained from administrative registers that are compiled from data from Danish educational institutions, the Ministry of Education, and other relevant institutions.

In practice, education is measured as the nominal length in full years from the 1st grade to the highest educational degree successfully earned. For instance, a person with a Danish Ph.D. degree has passed school (9 years) + high school (3 years) + undergraduate school (3 years) + graduate school (2 years) + doctoral school (3 years), which is equal to 20 years of schooling.

Access to administrative registers may be even more of an advantage when it comes to the educational level of parents since survey participants may not have a precise recollection of their parents' educational background. Each parent's level of education is measured in the same manner as their adult children then these are combined into a single measure of both parent's level of education in the form of an average of both parents' level of education. Mothers to survey participants have an average length of education at 12.3 years, fathers to survey participants have an average length of education at 12.7 years. The correlation coefficient between parent's level of education is moderately strong at (r=.52***).

Tradition of volunteer work (survey). In order to proxy whether an individual has been exposed to volunteering during their childhood, a survey measure is applied in which the respondent indicates on a 4-point ordinal scale to what degree the following statement is true: "*If you think back at your childhood, would you say that there has been a tradition of volunteering in your family?"*, with the possible answers*: not at all, to a lesser degree, to some degree,* and *to a high degree*. The variable has been coded as a binary variable with "not at all" being zero and all other categories 1. 50 % of respondents have no recollection of volunteering by family members during childhood and 50 % indicate at least some volunteering.

Admittedly, this item does not merely indicate whether parent's volunteer but also indicates volunteer work by family members other than parents during childhood such as siblings or possible extended family members. The variable should therefore be treated more as a general family socialization measure. It does however, function as a mediation variable for parent's volunteering in one regard since respondents answering

"no, none at all" cannot have parents (nor other family members) volunteering during childhood.

Controls

The study utilizes several control items that have been found by other studies to be important for volunteer work. The empirical measures for these controls are taken from the survey study.

Age. Studies consistently find that age is important for volunteer work, since certain time periods such as midlife, is characterized by more plentiful opportunities to volunteer (Rotolo 2010).

Age is calculated in full years from year of birth from the time of the survey.

Gender. In Denmark specifically, men are more likely to volunteer than women, which is likely due to the fact that much of volunteering is sports based (Fridberg 2014).

Gender is indicated by the interviewer.

Health. Researchers argue that health is a resource for volunteer work, since productive activities generally require good physical health (Wilson & Musick 1997).

Health status is a self-reported ordinal scale in which respondents indicate the state of their health.

Children in school age. Parents of children in school age are often requested or even expected to take part on school boards, as coaches, or other volunteer activities in connection with their children's educational or free time activities (Rotolo 2010; Rotolo & Wilson 2007).

Children in school age is measured by a binary variable which indicates whether the individual has at least one child between the age of 6 and 15 living at home.

Descriptive statistics

A descriptive overview of the variables used in this study are provided in table 2.

Table 2. Descriptive statistics

|	Range	valid n	Mean	sd
Volunteer	0-1	1829	0,36	0,48
Volunteer tradition	0-1	1815	0,50	0,50
Education	8-21	1819	14,06	2,51
Parents' average education	7-20	1829	12,45	2,99
Gender	0-1	1829	0,49	0,50
Age	16-66	1829	37,96	12,16
School age children	0-1	1829	0,28	0,45
Health	0-4	1829	3,29	0,91

Note: Only individuals sucessfully linked to parents are included.

Model

This study adopts a generalized structural equation modelling (SEM) approach. SEM combines path and regression analysis in order to estimate proposed relationships between multiple variables, structured within a single path diagram.

SEM is applied since it is a suitable technique for performing mediation analysis: e.g. an analysis where one considers how an independent variable is related to outcome variables by including a third mediator variable (Gunzler et al. 2013). Generically, a mediated relationship between the independent variable (x), a mediation variable (z) and the dichotomous outcome variable (y), can be visualized as in figure 1:

Figure 1.
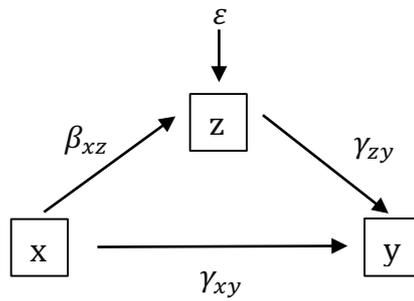
where γ and β are the regression coeffecients, and ε is the error term. The generalized variant of SEM is utilized due to the fact that its basis in generalized least squares estimation makes it possible for the dependent variables to belong to different families, e.g. continuous and binary. When generalized SEM is used to estimate the generic mediated relationship in figure 1, the following simulations equations are being solved:

$$Pr(y = 1|x,z) = \phi\big(\alpha_1 + x * \gamma_{xy} + z * \gamma_{zy}\big),$$

$$g\{E(z|x)\} = \alpha_2 + x * \beta_{xz} + \varepsilon$$

where *Pr()* signifies probability, *g{}* is the link function, and $\phi()$ is the standard normal cumulative distribution function.

The two equations are interlinked and therefore inferred simultaneously. The direct effect (γ_{xy}) is the pathway from the exogenous independent variable to the dependent outcome variable, controlling for the mediator. The indirect effect is the product of β_{xz} and γ_{zy}.

Naturally, the notation becomes more complicated as the form above is expanded upon in order to add controls and multiple mediators. However, the principle notation for the model remains the same.

Results

In this results section, a stepwise approach is applied in which only the effect of parents' level of education given controls is initially estimated. The empirical model is then expanded with the two mediation mechanisms: first, own education and, second, parents' volunteering. The first model in figure 2 is therefore an estimation of the baseline effect of parent's education.

Figure 2.
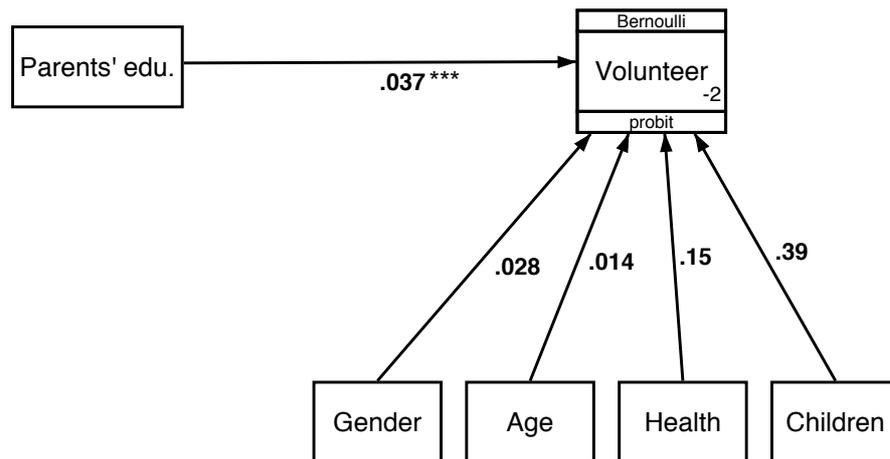
Notes: n=1,815. *=p<0.1, **=p<0.05, ***=p<0.001. Only significance levels for key coefficients are shown.

Controlling for age, gender, health and children in school age, it is found that each average additional year of education of parents increases the likelihood of being a volunteer by 1.3 %. This result is obtained by deriving the average marginal effect (AME) of the regression coefficient ($\hat{\beta} = 0.037$, p<0.001) for parents' education in the SEM in figure 2 —which is essentially just a probit regression model.

In table 3, this marginal effect is converted into a set of more meaningful predictions. To do so, a representative individual from the sample must be selected and this is done by determining the sample mean age and then using the most common values of other control variables at that age. Using this approach, table 3 provides the predicted propensity to volunteer for a female with school aged children living at home, who is of excellent health and at the survey sample average age of 38. Parents' level of education equivalent to different possible graduation levels in the Danish school system is provided. Notice that individuals who exited school before 1972, without pursuing further education, could do so after either 7 or 9 years.

9

Table 3. Predicted propabilities of performing volunteer work, given parents' average level of education.

Avg. Years of education of parents	Predicted probability of volunteering
7 (School before 1972)	0.419 (0.037)
9 (School)	0.448 (0.032)
12 (High School)	0.492 (0.027)
14 (Bachelor)	0.535 (0.028)
17 (Master)	0.564 (0.032)
20 (Ph.D.)	0.607 (0.040)

In table 3, it is shown that an individual with the characteristics mentioned previously, who is born to parents of the lowest possible educational background (7 years of schooling), has a 41.9 % propensity to volunteer, whereas an individual born to parents who have the average equivalent in years of schooling as a master's degree has a 56.4 % propensity of being a volunteer. This difference constitutes a comparable increase of 35 % in propensity to volunteer.

In figure 3, the mediation of an individuals' own level of education is added to the empirical model in order to explain some of the effect of parents level of education through reproduction of social status:
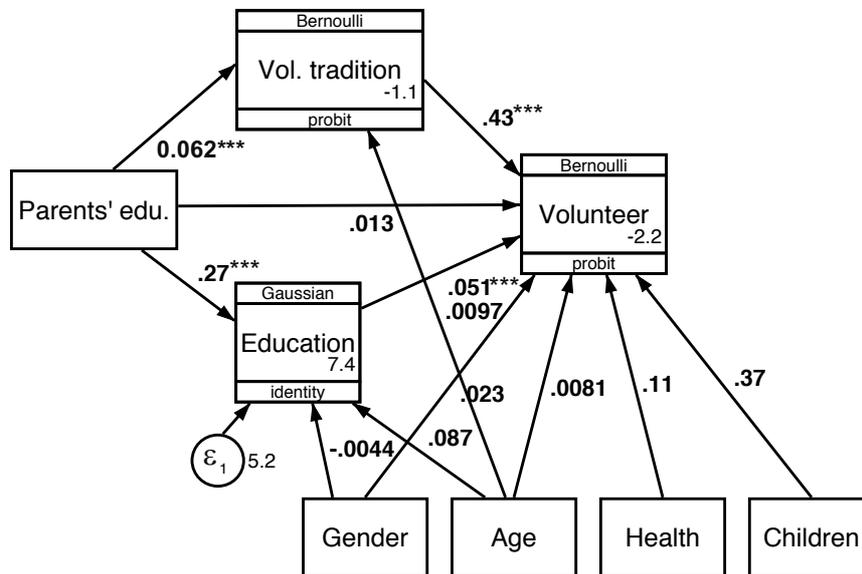
Figure 3.
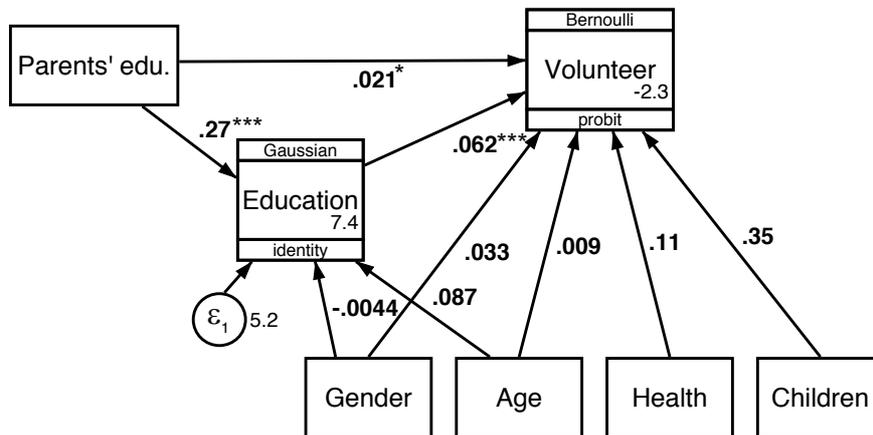
Notes: n=1,815. *=p<0.1, **=p<0.05, ***=p<0.001. Only significance levels for key coefficients are shown.

As expected, parents' average level of education significantly predicts the educational attainment of their children ($\hat{\beta}$=0.27, p<0.001), which is furthermore a significant predictor of whether one performs volunteer work ($\hat{\beta}$=0.062, p<0.001).

However, it is interesting to observe that a significant ($\hat{\beta}$=0.021, p=0.072) direct effect of parents' level of education on propensity to perform volunteer work remains. In other words, a significant part of the effect remains empirically unexplained.

The second mediation pathway, having a tradition of volunteer work in the family during childhood, is then added in figure 4:

Figure 4.

Notes: n=1,815. *=p<0.1, **=p<0.05, ***=p<0.001. Only significance levels for key coefficients are shown.

Figure 4, which contains the final empirical model, shows a highly significant relationship between parents' level of education and the odds of having a tradition of volunteering in the family during one's childhood ($\hat{\beta}$=0.062, p<0.001). Specifically, the AME shows that each year parents' average educational attainment increases the likelihood of having a tradition of volunteering in the family during childhood by 2.4 %. Consequently, having a tradition of volunteering in the family during childhood is a strong and highly significant predictor of volunteering ($\hat{\beta}$=0.43, p<0.001, AME=0.149).

In the final model, one may furthermore observe that the highly significant effect of one's own level of education on the propensity to perform volunteer work remains. By deriving the AME it can be shown that each additional year of education increases the propensity to volunteer with 1.8%.

This is interesting for the civic returns to education discussion since it supports the argument that it is not only that children of highly educated parent select into education that drives the effect of education on volunteer work: Achieving higher levels of education has an effect on volunteer work beyond the effect of parent's education. However, had parents' education not been included in the model, one would have found an average marginal effect of own education at 2.5 %, thus overestimating the effect of one's own education by 39 % (see appendix 1).

In table 4, the marginal effect of the effect of one's own education is converted into a set of more meaningful prediction. As in table 3, the following is the predicted rate of

volunteering for a female with school children living at home, who is of excellent health, who is at the survey sample average age of 38, *however,* she has parents with an average education of 12 years and has not been exposed to volunteer work by parents during childhood:

Table 4. Predicted propabilities of performing volunteer work, given level of education.

Years of education	Predicted probability of volunteering
7 (School before 1972)	0.264 (0.042)
9 (School)	0.298 (0.037)
12 (High School)	0.353 (0.031)
14 (Bachelor)	0.411 (0.030)
17 (Master)	0.451 (0.033)
20 (Ph.D.)	0.512 (0.043)

Finally, one may now observe that the AME for parents' average level of education has dropped to ($\hat{\beta}$=0.013, p=0.277, AME=0.04) in the full model—down from an AME of 1.3 % in the base model (figure 2). In other words, the two joint mediation mechanisms have substantially mediated the direct effect of parents' level of education on the propensity to perform volunteer work.

We may furthermore be interested in knowing exactly how much of the effect of parents' level of education is explained through each of the two mediation mechanism. This figure is derived by multiplying the AME in the indirect relationship of the final model from figure 4, which is done in table 5.

Table 5. Decomposition of the average marginal effect of each additional average year of parents' education.

	partial AME	partial AME	complete AME	% of total effect
Social status transmission	0.2703	0.0178	0.0048	36.9
Role modelling	0.0244	0.1492	0.0036	28.0
Direct effect			0.0046	35.1
Total effect			0.0130	100.0

It is shown in table 5 that the role modelling mechanism mediates 28% of the effect of parents level of education, whereas social status transmission mediates 37%. This leaves 35% unexplained by the two mediation pathways. It seems that both mediation mechanisms substantially mediate the effect of parents' level of education and to a somewhat similar degree, however, social status transmission is the strongest mediation mechanism: it mediates about 32 % more of the effect total effect compared to social learning.

Conclusion

This study confirms the hypothesis that propensity to perform volunteer work significantly depends on parents' level of education. Specifically, it was found that each year of average education of parents increases the propensity to perform volunteer work by 1.3 %, given demographic controls. The study also confirms the significance of two mediation pathways—social status transmission and role modelling—that combined explain 65 % of the main effect of parent's level of education. More specifically, it was found that social status transmission mediates 37 % of the effect of parents level of educations and role modelling mediates 28 %.

Appendix

Appendix 1. Probit regression of propensity to volunteer without parental education included

	β (se)	ame
Education	0.069*** (0.013)	0.025*** (0.005)
Gender	0.030 (0.062)	0.011 (0.022)
Age	0.006** (0.003)	0.002** (0.001)
School age children	0.357*** (0.069)	0.127*** (0.024)
Health	0.115*** (0.036)	0.041*** (0.013)
Constant	-2.081*** (0.219)	

pseudo R^2 =0.04, n=1,815

References

Acock, A. C. (2005): "Working with Missing Values." *Journal of Marriage and Family*, *67*(4), 1012–1028.

Allison, P. D. (2001): *Missing Data*. Thousand Oaks: Sage Publications, Inc.

Andreoni, J. (1990): "Impure Altruism and Donations to Public Goods: a Theory of Warm-Glow Giving." *The Economic Journal*, *100*(401), 464–477.

Bandura, A. (1977): *Social Learning Theory*. Englewood Cliffs: Prentice-Hall.

Bekkers, R. (2007): "Intergenerational Transmission of Volunteering." *Acta Sociologica*, *50*(2), 99–114.

Brand, J. E. (2010): "Civic Returns to Higher Education: a Note on Heterogeneous Effects." *Social Forces*, *89*(2), 417–433.

Brooks, R. (2008): "Accessing Higher Education: the Influence of Cultural and Social Capital on University Choice." *Sociology Compass*, *2*(4), 1355–1371.

Caputo, R. K. (2009): "Religious Capital and Intergenerational Transmission of Volunteering as Correlates of Civic Engagement." *Nonprofit and Voluntary Sector Quarterly*, *38*(6), 983–1002.

Dee, T. S. (2004): "Are There Civic Returns to Education?." *Journal of Public Economics*, *88*(9-10), 1697–1720.

Einolf, C., & Chambré, S. M. (2011): "Who Volunteers? Constructing a Hybrid Theory." *Voluntas: International Journal of Nonprofit and Voluntary Sector Marketing*,

16(4), 298–310.

Enders, C. K. (2010): *Applied Missing Data Analysis* (1st ed.). New York: Guildford Press.

Fridberg, T. (2014): "Hvem er de frivillige?" In T. Fridberg & L. S. Henriksen (Eds.), *Udviklingen i Frivilligt Arbejde 2004-2012* (pp. 47–68). Copenhagen: SFI.

Fridberg, T., & Henriksen, L. S. (Eds.) (2014): *Udviklingen i Frivilligt Arbejde 2004-2012* (pp. 1–307). Copenhagen: SFI.

Gunzler, D., Chen, T., Wu, P., & Zhang, H. (2013): "Introduction to Mediation Analysis with Structural Equation Modeling." *Shanghai Archives of Psychiatry, 25(6): 390-394.*

Hauser, S. M. (2000): "Education, Ability, and Civic Engagement in the Contemporary United States." *Social Science Research*, *29*(4), 556–582.

Janoski, T., & Wilson, J. (1995): "Pathways to Voluntarism: Family Socialization and Status Transmission Models." *Social Forces*, 74(1),27 1–292.

Jæger, M. M., & Holm, A. (2007): "Does Parents' Economic, Cultural, and Social Capital Explain the Social Class Effect on Educational Attainment in the Scandinavian Mobility Regime?." *Social Science Research*, *36*(2), 719–744.

Krumpal, I. (2011): "Determinants of Social Desirability Bias in Sensitive Surveys." *Quality and Quantity*, *47*(4), 2025–2047.

Little, R. J. A., & Rubin, D. B. (2002): Statistical Analysis with Missing Data (2nd ed.). Hoboken: Wiley-Interscience.

Moore, G., & Whitt, J. A. (2000): "Gender and Networks in a Local Voluntary-Sector Elite." *VOLUNTAS: International Journal of Voluntary and Nonprofit Organizations*, *11*(4), 309–328.

Musick, M., & Wilson, J. (2008): *Volunteers: A Social Profile*. Bloomington & Indianapolis: Indiana University Press.

Mustillo, S., Wilson, J., & Lynch, S. M. (2004): "Legacy Volunteering: a Test of Two Theories of Intergenerational Transmission." *Journal of Marriage and Family*, *66*(2), 530–541.

Perks, T. A., & Konecny, D. (2015): "The Enduring Influence of Parent's Voluntary Involvement on Their Children's Volunteering in Later Life." *Canadian Review of Sociology/Revue Canadienne De Sociologie*, *52*(1), 89–101.

Quaranta, M., & Dotti Sani, G. M. (2016): "The Relationship Between the Civic Engagement of Parents and Children: a Cross-National Analysis of 18 European Countries." *Nonprofit and Voluntary Sector Quarterly*, *45*, 1–22.

Rotolo T. (2000): "A time to join, a time to quit: the influence of life cycle transitions on voluntary association membership." *Social Forces* 78(3),1133–1161.

Rotolo, T., & Wilson, J. (2007): "The effects of children and employment status on the volunteer work of American women." *Nonprofit and Voluntary Sector Quarterly*, 36(3), 487-503.

Salamon, L. M., & Anheier, H. K. (1998): "Social Origins of Civil Society: Explaining

the Nonprofit Sector Cross-Nationally." *VOLUNTAS: International Journal of Voluntary and Nonprofit Organizations*, *9*(3), 1–36.

Salamon, L. M., Sokolowski, S. W., & List, R. (2003): *Global Civil Society*. Baltimore: The Johns Hopkins University.

Schofer, E., & Longhofer, W. (2011): "The Structural Sources of Association." *American Journal of Sociology*, *117*(2), 539–585.

Schultz, T. W. (1961): "Investment in Human Capital." *The American Economic Review*, *51*(1), 1–17.

Smith, D. H. (1994): "Determinants of Voluntary Association Participation and Volunteering: a Literature Review." *Nonprofit and Voluntary Sector Quarterly*, *23*(3), 243–263.

Sokolowski, S. W. (1996): "Show Me the Way to the Next Worthy Deed: Towards a Microstructurat Theory of Volunteering and Giving." *VOLUNTAS: International Journal of Voluntary and Nonprofit Organizations*, *7*(3), 259–278.

Spera, C., Ghertner, R., Nerino, A., & DiTommaso, A. (2015): "Out of Work? Volunteers Have Higher Odds of Getting Back to Work." *Nonprofit and Voluntary Sector Quarterly*, *44*(5), 886–907.

Hillygus, D. S. (2005): "The Missing Link." *Political Behavior*, *27*(1), 25–47.

Thoits, P. A., & Hewitt, L. N. (2001): "Volunteer Work and Well-Being." *Journal of Health and Social Behavior*, *42*(2), 115–131.

Uslaner, E. M. (2005): "Inequality, Trust, and Civic Engagement." *American Politics Research*, *33*(6), 868–894.

van Goethem, A. A. J., van Hoof, A., van Aken, M. A. G., de Castro, B. O., & Raaijmakers, Q. A. W. (2014): "Socialising Adolescent Volunteering: How Important Are Parents and Friends? Age Dependent Effects of Parents and Friends on Adolescents' Volunteering Behaviours." *Journal of Applied Developmental Psychology*, *35*(2), 94–101.

van Ingen, E., & van der Meer, T. (2011): "Welfare State Expenditure and Inequalities in Voluntary Association Participation." *Journal of European Social Policy*, *21*(4), 302–322.

Wilson, J. (2000): "Volunteering." *Annual Review of Sociology*, *26*, 215–240.

Wilson, J. (2012): "Volunteerism Research: a Review Essay." *Nonprofit and Voluntary Sector Quarterly*, *41*(2), 176–212.

Wilson, J., & Musick, M. (1997): "Who Cares? Toward an Integrated Theory of Volunteer Work." *American Sociological Review*, *62*, 694–713.

Wittek, R., & Bekkers, R. (2015): "Sociology of Altruism and Prosocial Behavior." In J. D. Wright (Ed.), *International Encyclopedia of the Social & Behavioral Sciences* (pp. 579–583). Oxford: Elsevier.