Social support: can it be too much?

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PRELIMINARY VERSION

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In the contest of rapid population ageing, the debate about elderly care and support is nowadays of extreme importance. Although it has been argued that in modern societies the role of the family might face a crisis (e.g. Popenoe, 1993), "elderly parents still receive a substantial amount of social support from adult children" (Silverstein and Bengtson, 1994: 943) The results from comparative studies (e.g. Bordone, 2009; Hank, 2007; Tomassini *et al.*, 2004) confirm the still significantly high level of intergenerational relationships in Europe.

Closer family ties in particular have been suggested to have a positive effect on health in old age (Antonucci, 2001; Krause, 2001; Ross, Mirowski, and Goldsteen, 1990), most obviously through the provision of several kinds of support (Berkman and Syme, 1979; Putnam, Leonardi, and Nanetti, 1993). Yet, there might be a limit to the improvement of elderly people´s well-being, due to "too much" social support resulting in feelings of powerfulness and dependency (Wheaton, 1985). Especially elderly receivers might feel dependent if not able to reciprocate and this may reinforce the network tendency towards treating the old person as dependent. Avoiding this cycle should be a priority to couple support and well-being in old age, without losses of control over older persons´ life.

In spite of the attention given so far from several disciplines to the study of social support on one side and on LOC on the other, to my knowledge there still is a lack of studies examining the specific pathway from social support to LOC. Moreover, previous research on the relation between social support and locus of control faces some limitations in that it is mainly cross-sectional, thus does not take into account changes over the life course (Oxman *et al.*, 1992). And even some longitudinal studies (e.g. Bosma *et al.*, 2005) do not consider that

social support perception varies across individuals. The comparison between different individuals does not exclude the possibility of selection effects of who receives support.

In contrast to previous studies, I will test the impact of social support on a specific personal characteristic, Locus of Control (LOC). LOC is a psychological construct derived by Rotter´s social learning theory (1954; 1966) that refers to individuals´ belief regarding the extent to which they can control or influence outcomes (Skinner, 1996). Locus of control is clearly not the same as health (Ross *et al.*, 1990). The high interest in focusing on LOC is due to the well-established fact that LOC is a direct pathway to a variety of health outcomes, both in terms of mental and physical well-being (Berkman, Glass, Brisette, and Seeman, 2000; Krause, 1987). Social support is not merely help from other people in a difficult situation, but it functions in multiple ways (Cutrona and Russel, 1990). In this study I will distinguish between informational-appraisal, emotional and instrumental supports exchanged between elderly parents and their adult children. The dimension of instrumental will be considered in its two aspects of tangible assistance (received aid) and integration (support provided), as defined by Krause (1987).

DATA AND METHODS

Mindful of previous studies´ weaknesses, I test my hypotheses on panel data from the English Longitudinal Study of Ageing (ELSA). This interdisciplinary data source investigates over health, economic position and quality of life as people age (www.ifs.org.uk/elsa). A longitudinal perspective takes advantage of the availability of four waves. The first survey sample was drawn from respondents to the Health Survey of England (HSE), providing a representative sample of the English population aged over 50. I consider only respondents with at least one child and interviewed at least twice over the follow-up. The used sample consists of 22,249 interviews, related to 7,193 persons aged 50 to 90. I have reduced the sample by dropping all the person years with missing values in any of the questions used to construct the indicator of LOC.

The dependent variable is locus of control, assessed with a shortened version of the Rotter Internal-External Locus of Control Scale (Rotter, 1966). The indicator ranges from 0 to 10. Higher values represent a more internal control.

The explanatory variables capture frequency of contact to the children (both phone calls and face to face meetings), level of reliance on the children and exchange of instrumental help between children and parents. Contact is measured by the items asking, "How often, on average, do you meet up with your children?" and "How often, on average, do you speak on

the phone with your children?" Any child living with the interviewed parent is not counted. Responses were summed to yield a total score ranging from 1 to 5, where highest values indicate high levels of informational-appraisal support and vice versa. Although parent-child contact may provide also emotional support, for the sake of simplicity here it is referred to as informational-appraisal support. A further indicator of emotional support is in fact constructed out of the questions on understanding, reliance and possibility of opening up to the child about the own worries. The six-category instrumental support variable has been constructed on the basis of whether the individual receives help in daily activities from children, children-in-law or grandchildren; whether the person has looked after a child or grandchild in the last week; and how many hours per day he/she spent giving help to someone outside the household. The degree of conflict between parent and children is used as a control variable in the following analyses (for a discussion about solidarity, conflict and ambivalence within family relationships, see Van Gaalen and Dykstra, 2006). Further control variables include age, health, marital status, friendships, as well as employment status.

A major problem of the traditional "between-individuals" approach is our limited knowledge of social support selection. The ''optimal'' level of social embeddedness clearly varies by individual, especially among the elderly population (Adams and Blieszner, 1995; Krause, Liang, and Keith, 1990). My approach specifies a statistical model that yields consistent estimates of the parameters in the presence of unobserved heterogeneity and does not rely on theoretical assumptions about the relationship of observed and unobserved variables. I therefore use fixed-effects models for panel data to analyse the probability of holding a more internal locus of control.

The linear regression model with fixed-effects is (Greene, 2001):

$$y_{it} = \beta' x_{it} + \alpha_i + \delta_t + \varepsilon_{it} \qquad \qquad \begin{aligned} E\big[\varepsilon_{it} \mid x_{i1}, x_{i2}, ..., x_{iT(i)}\big] &= 0 \\ Var\big[\varepsilon_{it} \mid x_{i1}, x_{i2}, ..., x_{iT(i)}\big] &= \sigma^2 \end{aligned}$$

where t = 1, .., T(i) refers to the time and i = 1, .., N refers to the person; the vector β is a set of parameters of primary interest; and α_i is the group specific heterogeneity and varies across individuals (see Wooldridge, 1995). α_i represents the combined effect on y of all unobserved variables that are constant over time (Allison, 2005). We include time specific effects (δ_t). Such intercept may be different for each point in time. Since the number of periods is fairly small, these can usually be accommodated simply by adding a set of time specific dummy variables to the model (Greene, 2001). The error term ε_{it} is different for each individual at each point in time and represents purely random variation at each point in time.

The use of fixed-effects models is theoretically justified by the fact that when dealing with the human psychological dimension, it is hardly possible to compare different persons. From an econometric point of view, the Hausman test applied to the data used for the following analyses (Hausman, 1978) suggests that unit-specific effects are correlated with some of the independent variables in the models and it is therefore necessary to use fixed-effects.

RESULTS

LOC over time is characterized by a decreasing pattern. A clear age effect prevails in the interpretation of Figure 1, which draws a non-parametric estimate of LOC between 50 and 80 years old for males and females in the sample under study. As suggested by the literature, women maintain a more external sense of control (lower LOC over the continuum of the scale) over their lives than men. The difference does not appear to be statistically significant.

[Figure 1 about here].

Fixed-effects regressions are performed on the full sample under study, including one support variable at a time (Figure 2). Moreover, an additional model will consider all the types of support together.

Both changes to lowest-low and high frequencies of parent-child contact (informational-appraisal support) from medium levels are associated with significant lower levels of parental locus of control. A reversed-U-shaped relationship exists between informational-appraisal support and LOC even after controlling for the relevant other time-varying variables, as shown in Figure 2(a). This result holds also controlling for intergenerational conflict. The more the conflict between parent and children, the lower is the level of individual control. However, there might be differences in the association support-control according to the situation of parent-child conflict. The analyses performed on the two sub-samples (of child-parent dyads in conflict and those not experiencing conflict over the follow-up period) show a very similar reversed U-shape pattern. Still, parents experiencing conflict with children tend to be more sensible to "extreme" changes in informational-appraisal support received from the children themselves. Figure A1 in the Appendix shows the significance levels of the coefficients from the analyses of informational-appraisal support on the whole sample, on the sub-sample not experiencing any conflict with the children and on that experiencing conflict. Moreover, the coefficient from the fully interacted model is added, showing the gap between the two mentioned sub-samples.

The additional indicator of emotional support takes into account parent-child understanding, trust and confidence. The multivariate analysis confirms that there exists the linear and positive association between emotional support and control, as found in the non-parametric estimates. Figure 2(b) shows that the more the parent can rely on the children, open up to them and the more they understand the way the parent feels, the higher parental locus of control is. This association is statistically significant.

When the parent receives help and does not provide any instrumental support, the own sense of control is reduced compared to when he neither receives nor provides help. As seen in Figure 2(c), this reduction is significant at 90% level. Whether the individual provides small amounts of instrumental support, the LOC does not significantly change. Small amounts here is below 9 hours per week of looking after a person outside the own household. Still, once this rises close to 20 hours per week, the sense of control tends to decline. A change to both giving and receiving from neither giving nor receiving is associated with a decrease in the sense of control. However, this result is likely to find an explanation in the data construction.

[Figure 2 about here].

Other than observing the coefficients of the support explanatory variables individually, the post-estimation F-test suggests that these covariates are jointly significant. The multiple support dimensions act indeed in a cumulative way and produce therefore a larger effect when combined together.

DISCUSSION

This study applied fixed-effects regressions that analyse the association between a change in the support provided by adult-children to elderly-parents and the locus of control of these latter. The results of this study mainly confirm my hypotheses.

It is found a linear relationship between emotional support and LOC. In general, LOC gets more internal with the development of intimacy and trust with children. Increases of emotional support are always associated with changes towards a more internal control. However, only for the association of LOC with emotional support the facilitation perspective holds alone. The curvilinear relationship between informational-appraisal support and locus of control confirms that facilitation and displacement perspectives may work in consecutive stages. Initial increases of contact between parent and children are associated with an increase

in the LOC of the parent. However, increasing to large amounts meetings and phone calls is associated with a decrease in LOC. The results suggest that receiving tangible help is negatively associated with LOC, however (due to the data available) I cannot control for a possible reversed-U-shape association between the amount of instrumental support received and the sense of control held.

Probably due to the greater sense of purpose coming with the adoption of a productive social role, elderly parents hold a higher sense of control when they are able to reciprocate. However, providing support for the large part of the week seems to be associated with a declining sense of control. I would suggest that too many hours of informal work for persons aged over 50 might raise the feeling of being exploited;

These presented results raise some critical implications on current social policy. Independently of whether elderly-care belongs to public or private sources, it is important to take into account the psychological well-being of the fragile elderly population. It seems that the best way for enhancing elderly people's sense of control is to give them social support, without completely undermining their autonomy.

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APPENDIX

Figure A1. *Conflict-specific association between informational-appraisal support and locus of control.*
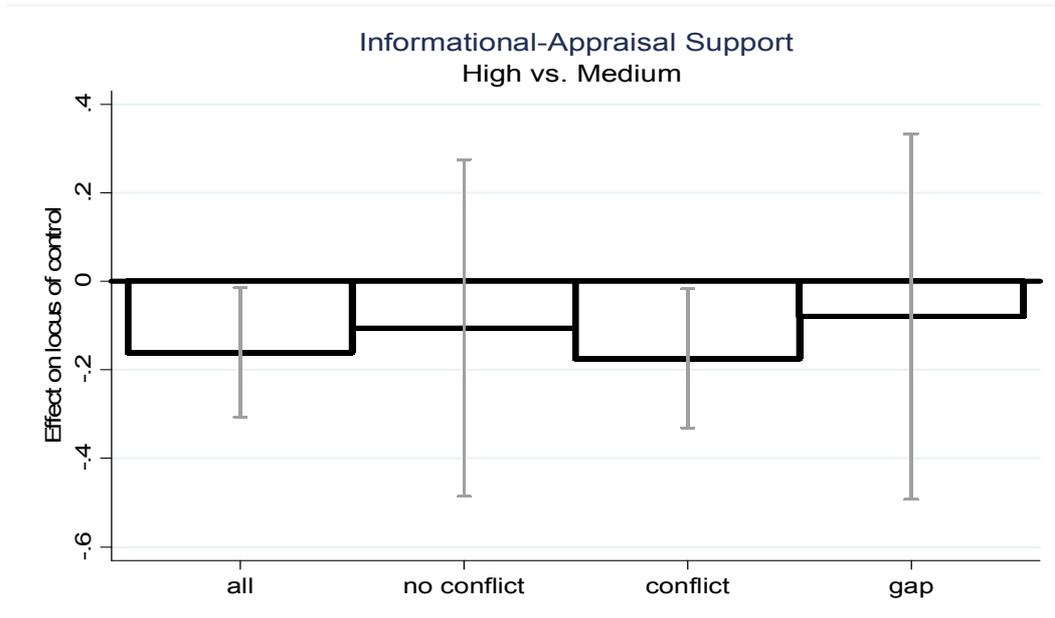

Note: regression performed on the following sub-samples: N(all)observations=16,774; N(all)i=5,817; N(no conflict)obs=3,457; N(no conflict)i=1,259; N(conflict)obs=13,317; N(conflict)i=4,558. For this analysis it has been excluded any individual which changes from 0 to any other level of conflict with the children during the time of observation. In this way, conflict is considered as a time-constant variable.
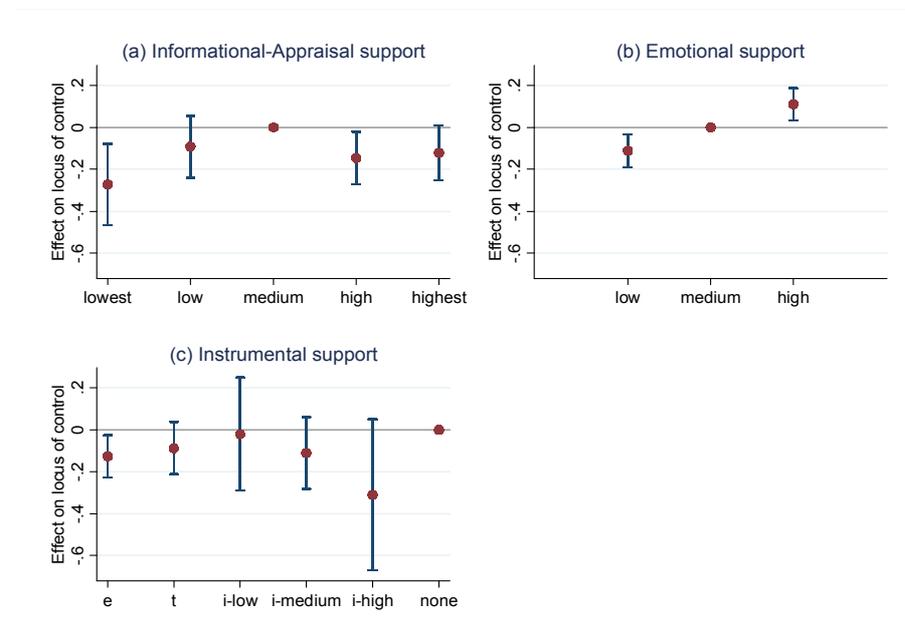*Source*: ELSA, Author´s calculations.

FIGURES

Figure 1. *Descriptive behaviour of LOC over age, by gender. Non-parametric estimate of LOC using Locally Weighted Scatterplot Smoother (LOWESS) and respective 95% Confidence Intervals (thinner lines).*
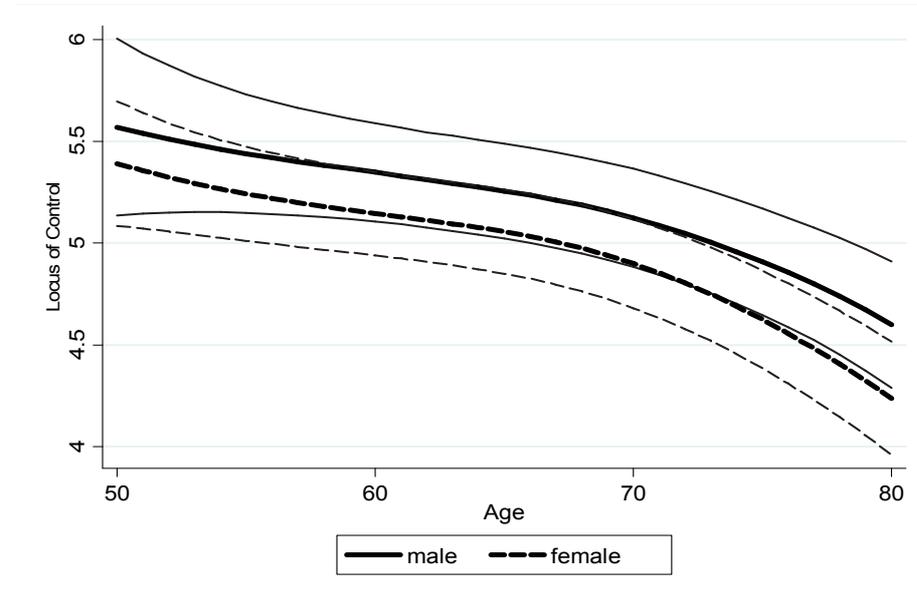
Source: ELSA, Author´s calculations.

Figure 2. *Association between social supports and locus of control.*

Note: (c) "e = exchange of instrumental help" here means either giving and receiving or not giving and not receiving instrumental support; t = tangible; 95% Confidence Intervals.
Source: ELSA, Author´s calculations.