Grandpa and the snapper: the wellbeing of the elderly who live with children

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We are grateful to Gallup for granting us access to the Gallup-Healthways Wellbeing Index data and their World Poll. Both authors are consulting senior scientists with Gallup. They gratefully acknowledge financial support from Gallup and from the National Institute on Aging through the National Bureau of Economic Research, Grants 5R01AG040629–02 and P01 AG05842–14. We are grateful to Anne Case for comments on a previous draft. Snapper is an Irish term for a child, abbreviated from whippersnapper: as when a grandpa says to his daughter-in-law "I've got a Jaysus hangover on me will you ever shut them snappers up." This paper looks for such effects.

ABSTRACT

Elderly Americans who live with people under age 18 have lower life evaluations than those who do not. They also experience worse emotional outcomes, including less happiness and enjoyment, and more stress, worry, and anger. In part, these negative outcomes come from selection into living with a child, especially selection on poor health, which is associated with worse outcomes irrespective of living conditions. Yet even with controls, the elderly who live with children do worse. This is in sharp contrast to younger adults who live with children, likely their own, whose life evaluation is no different in the presence of the child once background conditions are controlled for. Parents, like elders, have enhanced negative emotions in the presence of a child, but unlike elders, also have enhanced positive emotions. In parts of the world where fertility rates are higher, the elderly do not appear to have lower life evaluations when they live with children; such living arrangements are more usual, and the selection into them is less negative. They also share with younger adults the enhanced positive and negative emotions that come with children. The misery of the elderly living with children is one of the prices of the demographic transition.

1. Introduction

This paper lies at the intersection of two literatures, one on whether children bring wellbeing to those who live with them, and one on the living arrangements of the elderly. Whether or not children make their parents' life better is an old question that remains unsettled, see Hansen (2012) and Stanca (2012) for recent surveys of the literature; both of these argue that most studies find a negative effect of children on their parents wellbeing. Our own work, Deaton and Stone (2013), argues that, in line with what might be expected from rational choice under uncertainty with life evaluation as a target, parents' life evaluation is no different from that of non-parents on average, once we allow for differential selection into parenthood. However, we also find that parents of children have different emotional lives, with more happiness and more enjoyment, as well as more stress and more worry.

The literature on the living arrangements of the elderly in the US argues that the elderly value their ability to live independently. In consequence, those who are living with children aged under 18, who are unlikely to be their own, are likely to be selected on factors such as low income or poor health, see Boersch-Supan, Kotlikoff and Morris (1988). Low income and poor health have well-attested negative effects on both evaluative and emotional wellbeing. It is also possible that living with young people brings fewer positive and more negative emotions for the elderly than for the parents themselves; the ability to tolerate the difficult parts of childhood may diminish with age. Such effects would add to the effects of negative selection, and we might expect especially poor outcomes for the elderly living with children.

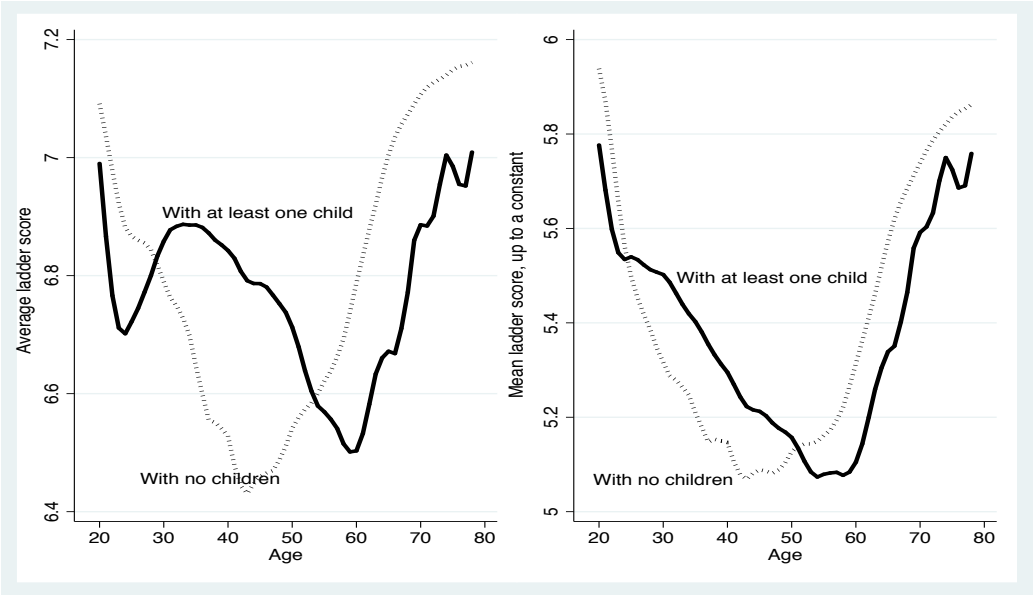
Outside of the United States and other rich countries, it is much more common for the elderly to live in multigenerational families. Where this is the case, there is much less reason to believe that there is negative selection into living with children among the elderly. In such places, we should observe something closer to the direct effects of living with children. It has often been argued that, prior to the demographic transition, "the elderly are an integrated, useful, and respected part of their families," Deaton and Paxson (1992) who are summarizing an earlier extensive literature. If so, living with a younger generation of children may bring positive emotional and evaluative experience in pre-transition countries.

We use two large data sets collected by Gallup, one for the United States, the Gallup Healthways Wellbeing Index, and one for 161 countries around the world, the Gallup World Poll, with sample sizes of 1.8 million and 1.1 million individuals respectively. These data sets are rich in well-being questions, and include measures of life evaluation as well as a range of emotional wellbeing measures or hedonics. They also have the advantage of using identical questions in all locations. These advantages are offset by incomplete information on living arrangements. In particular, we have information on one respondent from each household, and know only whether or not there is a child at home, not the relationship of the respondent to that child.

Our primary focus is on the wellbeing of the elderly, though we shall typically compare outcomes for the elderly with those for the younger generation who are actually the parents of the children.

2. Wellbeing, the elderly and children in the United States

Figure 1 is a starting point for our investigation. The data come from the Gallup Healthways Wellbeing Index data from the United States, which has collected 1,000 daily observations from adults (aged 18 or older) from the beginning of 2008 through to the end of 2012. The two lines show average life evaluation by age for those who do and do not report the presence of a child living with them; a child is defined as anyone younger than 18. The life evaluation measure here is the Cantril ladder, running from 0 (the worst possible life for you) to 10 (the best possible life for you) and these numbers are averaged for all people by single years of age. The left-hand graph has no controls, while the right hand graph controls for income categories, education categories, and sex; missing values—of which there are a substantial number for income—are handled by treating missing as a category. Both plots show five year triangularly weighted moving averages of the age coefficients in a regression of the ladder on the presence of at least one child interacted with indicators for single years of age, together with covariates when they are included.



The graphs show that both those with and without children have the familiar U-shaped profile of life evaluation by age, Blanchflower and Oswald (2008), Stone et al (2010). Interestingly, in the left-hand graph where there are no controls, the onset of the U is postponed for those with children, opening up a gap between those with and without children during ages 30 to 50; the midlife dip in wellbeing is two decades later among people with children. We have used the 2008 American Community Survey to investigate how many of the people living with children are the parents of those children. Figure 3 plots this fraction by age, and shows that at each age from 34 to 46, more than 90 percent of adults who have a child at home are the parents of that child. We can therefore read the left panel of Figure 1 as showing that, for those aged 34 to 46, *parents* with a child at home have higher live evaluation than adults in the same age range who do not. Among younger respondents, where the child is most likely a sibling, life evaluation is lower in the presence of a child, something that is also true among the elderly. In the right-hand part of the figure, where we have added the controls the gaps between the two lines are much smaller.

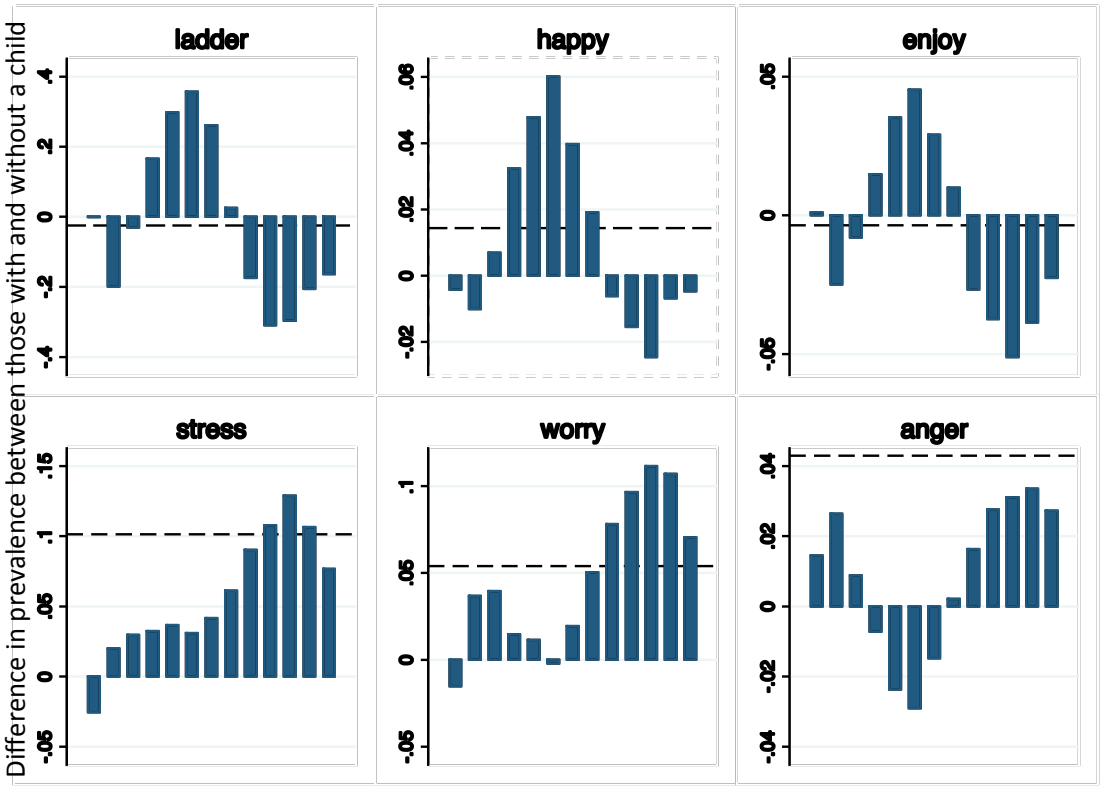
In Deaton and Stone (2013), we show that, for the parental group, aged 34 to 46, the higher wellbeing of those with children can be entirely attributed to a fuller set of covariates, than those used in the figure, including race, Hispanic status, marital status, religiosity, smoking, and a range of health conditions. Those with children in the 34–46 age range are different from those without children in ways that promote higher life evaluation on their own account. This is consistent with the idea that the positive effect of children on life evaluation comes entirely from the life-

evaluation enhancing effects of the circumstances—higher income, education, religiosity, and health—that differentially cause people to select into parenthood. It is also possible that some or all of these conditions may be a result of being a parent, so the ability to explain the evidence by covariates does not conclusively imply that children do not enhance life evaluation. "Good" characteristics cause selection into parenthood, but are in part induced by parenthood—parents giving up smoking, or exercising more frequently—and this part of the increase in wellbeing should properly be attributed to the presence of the children.

One aim of this paper is to make a similar accounting for the elderly. We start by examining uncontrolled differences in outcomes by age, and then document the differences in background characteristics between the elderly who do and do not live with children. We then present regressions of outcomes on the presence of a child with a range of controls for background characteristics.

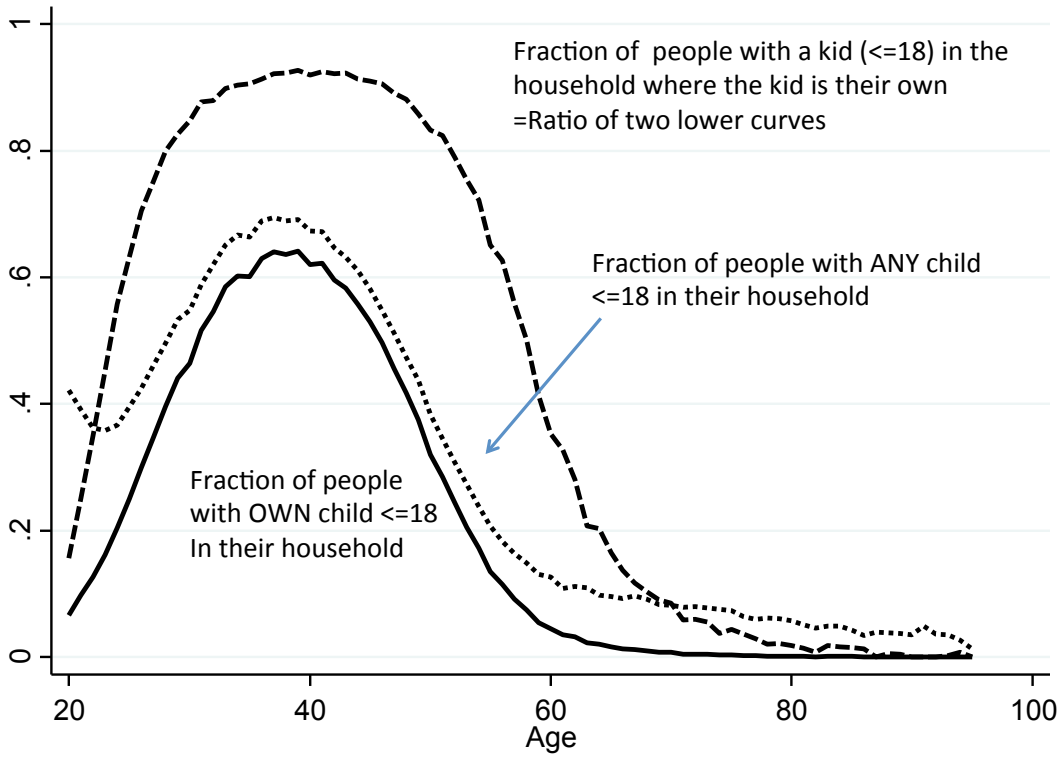
Figure 2 shows the (uncontrolled) *difference* in the ladder and in hedonic outcomes between those with and without children; here we use five-year (except for first and last) age groups as an alternative to the smoothing in Figure 1. The top left panel for the ladder shows the differences between the two lines in the top panel of Figure 1. The various hedonic experiences in the other panels come from questions in which respondents are asked whether or not they experienced X "during a lot of the day yesterday." We average over the dichotomous response to obtain the fractions in each age group who experience X, and then plot the differences in prevalence between those with and without children at home. Figure 2 shows the results

of this calculation for X equal to happiness, enjoyment, stress, worry, and anger. Note that the scales in Figure 2 change from one outcome to another.



The panels show that the average hedonic wellbeing of older Americans living with children is considerably worse than average hedonic wellbeing of older Americans who do not. The second panel on top, for example, shows that those aged 41–46 with children were 6 percent *more* likely to experience happiness yesterday, while those aged 66–70 were 2 percent *less* likely to do so. These are large effects, at least in terms of other variables that affect happiness; for example, an increase in log income of 0.3 increases the probability of reporting happiness by 1 percent. The patterns for enjoyment and smiling (not shown) have a similar life cycle shape to that for happiness, as does sadness (with the sign reversed) and this too is not shown.

The negative emotions of stress, worry, and anger are shown in the other three panels. Stress is worse among those with children, and especially so among the elderly. Worry is not much worse for adults in their 30s and early 40s, and anger is substantially less prevalent for adults in the same age range. But worry and anger are much elevated among the elderly who live with children. Among adults aged 34-46 who live with children, the presence of children is associated with more positive and more negative affect; emotional life is more extreme with children. But for the elderly, there is no upside: all of the positive emotional experiences are *less* prevalent when they live with children, and negative emotional experiences are *more* prevalent.



The horizontal lines in these figures show the *average* difference between those with and without children irrespective of age. These numbers—particularly for anger, but see also stress—provide spectacular examples of Simpson's paradox, that the average over everyone can exceed each age-specific average.

An immediate question is whether these negative outcomes for the elderly can be explained by the circumstances that select them into living with children. We turn first to the question of how the elderly living with children differ from those living without children. Figure 3, which is calculated from the 2008 American Community Survey, shows the fractions of people at each age who live with children, and what fraction of those people are the parents (including step-parents and adopted parents) of the children with whom they live. The graph shows the fractions of people with a child in their household by age, the fraction with their own child in the household, and the ratio of the two. Note first that the fraction of people living with someone below 18 years of age is only 12.6 percent at age 60, and only a third of those are the child of the respondent. By age 65, the numbers are 9.6 percent and 16.5 percent respectively, and they decline with age thereafter. In the Gallup data—unlike the American Community Survey—we do not know the relationship of the respondent to the child, but the most obvious possibility is that the elderly are living with their own children, so that the people under 18 are their grandchildren. The literature on living arrangements in the United States argues that the elderly are reluctant to live with their children, so that the presence of someone under age 18 may indicate poor health, low income, or an inability to live alone; indeed low income and functional limitations are predictive of not living independently. Other

possibilities include grandparents looking after their grandchildren in the absence of the child's parents—their own children—an outcome that would not suggest poor health.

Table 1
Characteristics of those aged 65-94 with and without children living at home

	No children	Children	Difference	t-value
Married	0.55	0.51	–0.04	12.0
Female	0.57	0.58	0.01	2.4
Hispanic	0.04	0.10	0.06	37.4
Black	0.07	0.20	0.13	52.4
White	0.92	0.76	–0.16	59.1
Asian	0.00	0.01	0.01	9.0
Age	74.2	71.4	–2.84	60.8
No high school	0.19	0.27	0.08	27.1
HS diploma	0.41	0.39	–0.02	5.8
College	0.27	0.24	–0.02	7.7
Post-graduate	0.12	0.09	–0.03	14.1
Log income	7.96	7.93	–0.02	3.6
Religious	0.75	0.80	0.04	13.7
Health limitation	0.34	0.39	0.05	14.3
Disabled	0.33	0.38	0.04	51.7
Health status	2.79	2.95	0.16	18.6
Smoker	0.10	0.14	0.04	20.7

Notes: Religious is coded as 1 if the respondent says that religion is very important in his or her life, log income is the natural log of household monthly income, disabled is 1 if the respondent reported that they had a health problem that prevented them from doing the things that people their age can normally do, health limited is 1 if the respondent reported that there was at least one day in the last month when poor health prevented them from doing their usual activities. Health status is the mean of self-reported health status scored as 1 for excellent, 2 very good, 3 good, 4 fair, and 5 poor, so higher numbers mean worse health.

Table 1 looks at the population aged 65 and over in the GHWI data and shows the characteristics of those with and without children. There are more than half a million observations in this age group, though some data are missing, and some comparisons involve smaller numbers. The elderly who live with children are more likely to be black or Hispanic, and much less likely to be white. They are less well educated, more religious, less likely to be married, a little poorer, and much

more likely to report poor health, disability, or health conditions that limit daily activities. Poor health outcomes have strong negative associations with life evaluation and with all hedonics, and are associated with lower happiness, enjoyment, and smiling, and more stress, worry and anger. Income comes with better life evaluation and better hedonics, but is not very different between the two groups. Religiosity comes with higher life evaluation, more of the positive emotions, and with less anger. Education comes with higher life evaluation, but has little effect on hedonics. Women have higher life evaluation, and more of both positive and negative emotions; similar differences characterize blacks and Hispanics relative to whites. Taken together, the poorer health of the elderly who live with someone younger than 18 can predict some of their poorer outcomes, but their other characteristics are mixed in their effects.

If Table 1 is repeated for those in the parental age group, from 34 to 46, we find that the circumstances of those who live with children are uniformly wellbeing enhancing compared with the circumstances of those who do not live with children. They are healthier, better off, better-educated, more religious, more likely to be black or Hispanic, and less likely to smoke. In contrast, most of the circumstances of the elderly are negative for wellbeing. These differences between young and old will go at least some way to explaining what we see in Figures 1 and 2.

Table 2 presents regression coefficients on an indicator for the presence of at least one child in regressions for the ladder and for a range of hedonic experiences plus physical pain; as before, the age group is 65 to 95. The first column reports the coefficient when the regression contains, not only the presence of children, but also

a range of socioeconomic characteristics (income, education, single years of age, sex, race, marital status, religiosity, state of residence, and smoking status) together with controls for disability, the presence of a health limitation, and the five categories of self-reported health status. The middle column reports the same results, but without the health controls, while the column on the right reports the results for the average difference in outcomes between those who do and do not have a child at home.

Table 2: Coefficients on presence of children with alternative sets of controls

	Full controls		No health controls		No controls	
	β	t	β	t	β	t
Ladder	–0.105	(6.9)	–0.215	(14.5)	–0.278	(18.5)
Happiness	–0.003	(1.4)	–0.011	(5.1)	–0.021	(9.5)
Smiling	–0.010	(3.4)	–0.015	(5.5)	–0.018	(6.8)
Enjoyment	–0.020	(8.3)	–0.028	(12.3)	–0.040	(17.4)
Sadness	0.022	(7.8)	0.033	(12.9)	0.044	(16.9)
Anger	0.037	(18.3)	0.042	(22.7)	0.050	(27.0)
Worry	0.053	(17.3)	0.072	(25.1)	0.090	(31.3)
Stress	0.061	(20.1)	0.078	(27.6)	0.096	(33.7)
Physical pain	0.018	(5.8)	0.043	(13.8)	0.055	(17.6)

Notes: Each β is the coefficient on an indicator for the presence of children in a regression with the outcome as dependent variable. The columns differ in which other covariates are included in the regression. The "full controls" are marital status, household size, single years of age, religiosity, smoking, race, Hispanic status, education, income categories, sex, state of residence, disability, presence of a health limitation, and categories of self-reported health. "No health controls" refers to the full controls except for health, and "No controls" is simply the average difference between those with and without children.

All of the estimates in the table show worse outcomes for elderly people who live with children, and all but the coefficient for happiness in the first column are statistically significant. Adding more controls reduces the size of the effects, which grow absolutely smaller as we move along rows from right to left. As might be expected, it is the addition of the health controls that reduces the size of the negative effects of children on wellbeing; for life evaluation, the coefficient is reduced from –

0.28 without controls to –0.22 with demographic and income controls to only –0.11 with full health controls. People aged 65 and over who live with children have worse evaluative and emotional outcomes, even when we control for health. Of course, we cannot rule out that there are health conditions over and above those that we can take into account, and it is not the effect of the living arrangements—whether snappers or daughters-in-law. On the other side, we have included self-reported health status in the regression and this arguably over-controls for health because both it and the outcome variables are self-reported and almost certainly contain common dispositional factors that are spurious in this context.

These results for the elderly are quite different from those for the parents of the children (more precisely, adults aged 34 to 46) in Deaton and Stone (2013). There, life evaluation is higher for those with children, but the difference can be entirely accounted for by their more favorable background characteristics. Adults aged 34 to 46 also suffer more worry and stress, but also more happiness and enjoyment, and less anger, and those differences survive the controls. These results are consistent with the fact that the presence of children does indeed produce those emotional outcomes, and the lack of a difference in (conditional) life evaluation is what would be predicted by rational choice if parents aim to maximize life evaluation and anticipate the emotional (and other) effects of having children. Hence, apart from the selection covariates, there should be no difference *on* average between those with and without children.

For the elderly, by contrast, our evidence suggests that that living with children under 18 is associated with worse outcomes on all measures, in part because

of the selection into living with a child—primarily health selection—and in part because living with a child and/or his or her parents is unpleasant in itself. None of this is to argue that some elderly do not take pleasure in their grandchildren or in the children of those with whom they live. But, on average, we can find no evidence of it. Controlling for their background characteristics does nothing to contradict the generally bleak picture of evaluative and emotional wellbeing of the elderly who live with children.

We have replicated Table 2 for Hispanic and black elderly only, for whom living with children is more common, perhaps because living with their own children is seen as less undesirable. The results (not shown) replicate the generally negative consequences for worry, anger, stress, happiness, and enjoyment, but the negative effect on life evaluation is smaller and statistically insignificant, with or without controls. Note that we still have more than 20,000 observations for elderly blacks and Hispanics, so the insignificance is not simply the effect of having too few observations.

The United States has a relatively high fertility rate compared with other rich countries, although not compared with much of the rest of the world. Within the United States, there are marked differences in fertility rates across states, from 1.63 children per woman in Rhode Island, and 1.66 in Massachusetts, to 2.35 in Alaska and 2.44 in Utah. While the Mormon presence in Utah makes it exceptional, fertility rates are generally higher in the west and lower in the east. It would not be surprising if these fertility variations were linked to the emotional impacts of living with children. In particular, in high fertility settings, the elderly may find a greater role in

childcare, elders may enjoy living with children more, and the selection into living with children may be less averse.

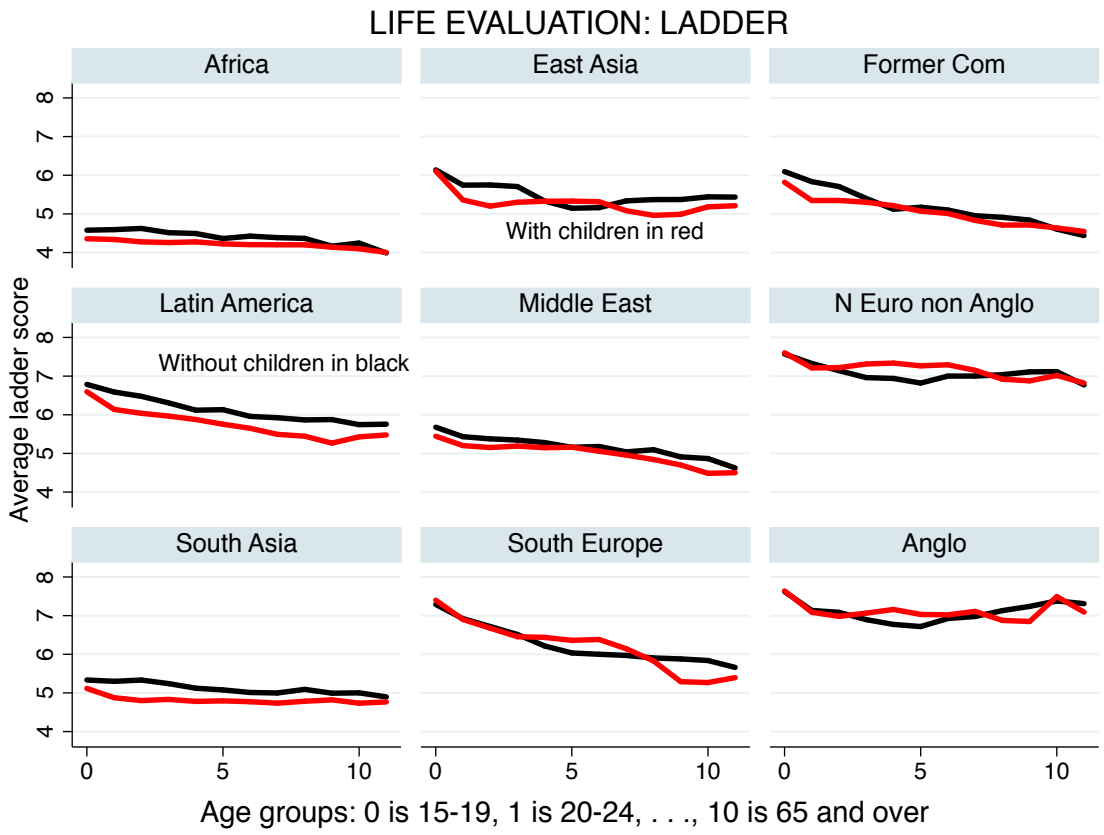
To test this possibility, we have computed, for those aged 65 to 95, the difference in evaluative and emotional outcomes between those who are or are not living with someone aged less than 18, and correlated those with total fertility rates state by state. In addition to the ladder, we looked at a measure of positive affect, defined as the sum of happiness, smiling, and enjoyment, less sadness, divided by four. A parallel construct of negative affect is defined as the average of stress, worry, and anger. We compute the unconditional differences, because for this comparison we want to include the selection effects as well as the possible direct effects of living with children.

The three cross-state correlations are small and insignificant, 0.05 for the ladder, 0.16 for negative affect, and –0.08 for positive affect. As we shall see, the findings are quite different when we look across countries rather than US states.

3. Wellbeing, the elderly and children around the world

One of the surprising findings from the Gallup World Poll, which has collected data from a total of 161 countries from 2006 to 2012, is that the age-pattern of life evaluation does *not* show the standard U-shape in all countries or regions of the world. This is in spite of a literature that claims an almost biological necessity of the shape around the world, Blanchflower and Oswald (2008), holding not only in people, but also in non-human primates, Weiss et al (2013). Figure 4 shows the age patterns of the ladder in the World Poll, split by people who do and do not live with children; it

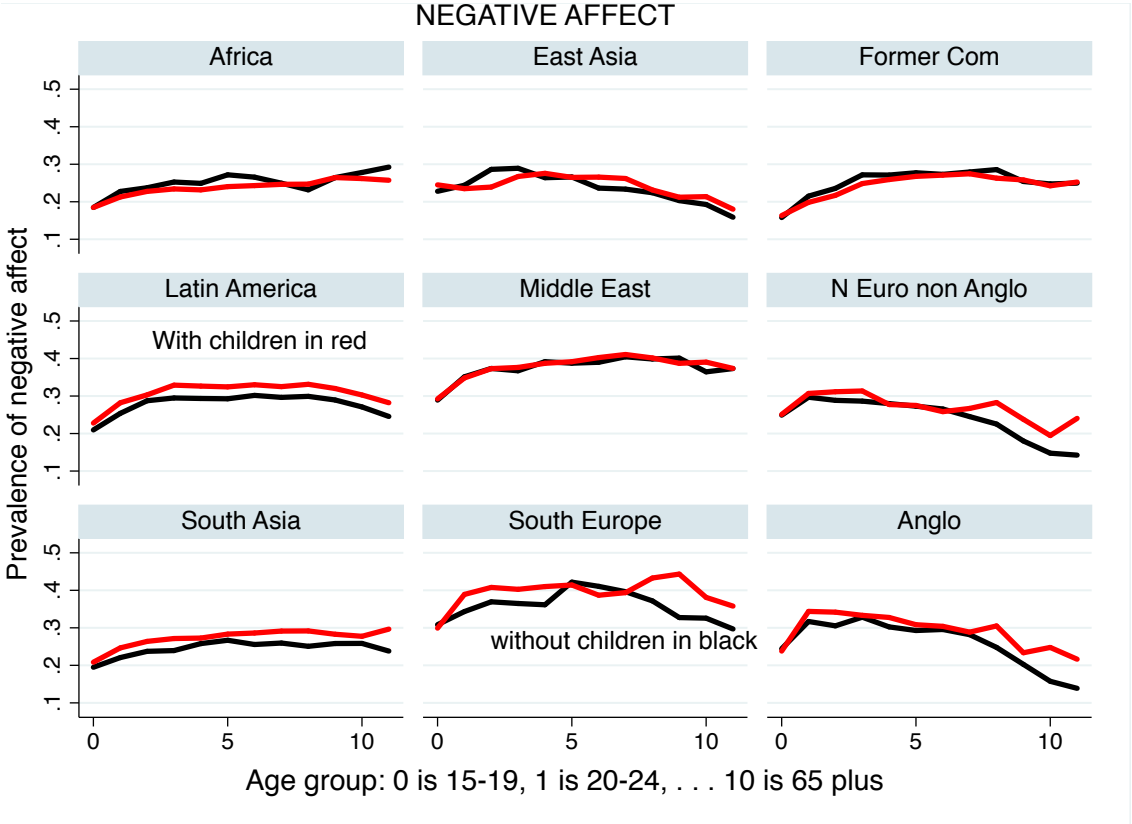
is the counterpart of the left panel of Figure 1 for the US, but splits the world into nine geographical regions. In most cases, we have chosen obvious geographical groupings, but we have also distinguished regions where previous work has suggested interesting regional patterns. This accounts for the "Former Communist" countries, including the former Soviet Union, and its erstwhile satellites in Eastern Europe, for the group of rich English-speaking countries (the United States, Canada, the United Kingdom, Ireland, Australia, and New Zealand) as well as for the division of Europe into North (excluding the Anglo countries) and South. Note also that in the World Poll, as opposed to the Gallup Healthways Wellbeing Index poll for the United States, children are defined as those less than fifteen years of age, not eighteen.



The bottom right hand panel of Figure 4, for the rich English-speaking countries, looks like Figure 1 for the United States. The familiar U-shaped pattern is evident here, though it is obscured somewhat by using identical scales for the different regions of the world, most of which have much lower ladder scores than do the rich Anglo countries. The U-shape is also visible in Northern Europe and to some extent in East Asia, but it is absent elsewhere. This is particularly obvious in the ex-communist countries, where life evaluation declines steadily with age. This is almost certainly a feature of the transition from communism, where the elderly have lost the world they used to know, and in some cases their pensions and healthcare, while the young have seen a new world of opportunity open up. But the pattern of life evaluation declining with age is not specific to these countries. It occurs also in Latin America, the Middle East, and Southern Europe. In the other two regions—which are also the poorest regions—South Asia and Africa, there is little or no age pattern in the average ladder score.

Looking next at Figure 5 (we shall come back to the comparison of those with and without children) we see the age patterns of negative affect for the same regions. Negative affect is the same summary measure defined above for the United States. The plots show the averages of the fractions of the population who experienced each of the emotions. Stone et al (2010) show that these negative emotions decline with age in the United States, which is consistent with theories in which people learn to better handle their emotions with age and experience, Carstensen, Fung, and Charles (2003). This pattern is evident in the bottom right panel for the aggregate of the rich Anglo countries. The same pattern is also clear in Northern Eu-

rope, and to a lesser extent in East Asia (which includes Japan.) But in the rest of the world, there is no evidence that people learn to better handle their negative emotions as they get older. Instead, people just get angrier, more stressed, and more worried as they age. Perhaps anger management, like a well-developed and generous Social Security system, is something that comes only in the richest countries of the world.



We have also drawn a parallel figure for positive affect, the average of happiness, smiling, enjoyment, and negative sadness. The figure is quite similar to that for the ladder in its age patterns, and shows little difference in positive affect between those with and without a child at home so it adds little to the discussion.

Table 3
Percentages of elderly living with a child by global regions

Region	55–59	60–64	65–69	70 plus
North Europe non Anglo	6.8	3.1	2.0	1.8
Rich Anglo	9.6	5.2	3.5	2.0
Southern Europe	11.1	6.6	6.2	4.3
Ex-communist	23.8	21.3	17.6	16.3
East Asia	31.2	32.2	26.4	20.1
Latin America & Caribbean	43.2	38.1	34.6	27.6
Middle East	49.0	43.3	40.8	43.2
South Asia	53.4	53.5	54.2	50.9
Africa	75.8	71.9	72.1	69.9

Notes: Rich Anglo comprises the English speaking rich countries, the USA, Canada, Ireland, Britain, Australia, and New Zealand. N. Europe is the non-Anglo part of northern Europe, France, Germany, Netherlands, Belgium, Sweden, Denmark, Austria, Finland, Iceland, Luxemburg, Norway, and Switzerland. S Europe is Spain, Italy, Greece, Israel, Malta, Cyprus, Portugal, and Northern Cyprus. Ex-communist comprises the formerly communist countries of Eastern Europe, Russia, and Central Asia.

Figures 4 and 5 also show differences between those with and without a child at home. Before looking at these, we look at the prevalence of having a child in the home around the world. It is unusual for an elderly person in the United States to live with a child aged younger than 18 (or 15). It is even more unusual in Northern Europe, and unusual too in Southern Europe, but not at all in the rest of the world. Table 3 shows the fractions of elderly living with children aged younger than 15. For the rich English-speaking countries (including the United States), for Northern Europe, and for Southern Europe, the fractions of people aged 70 and older who live with someone younger than 15 is 2 percent, 1.8 percent, and 4.3 percent, respectively. In the Middle East, South Asia and Africa the corresponding figures are 43.2, 50.9 and 69.9 percent, with intermediate numbers for the Eastern European and other formerly communist countries, for East Asia, and for Latin American and the Caribbean. In the high fertility regions of the world, it is common for the elderly

to live with children, and in South Asia and Africa, most of the elderly live with at least one child younger than 15. When living with children is normal, it is unlikely to be seen as undesirable, though it is still possible that poor health will make it more likely that the elderly do so.

Returning to Figure 4, the Anglo panel shows again what we found in Section 1, that people with children have higher life evaluation than people without when they are in the parenting years, but that the elderly living with children have lower life evaluation. This pattern holds in both Northern and Southern Europe, and in an attenuated form in East Asia and the Middle East. In Africa, South Asia, and Latin America, people with children have lower life evaluation throughout life. Figure 5 shows that negative affect is higher among the elderly with children in Europe and the Anglo countries. In Latin America and South Asia, negative affect is associated with children throughout life. Once again, there is little to see in the corresponding graphs for positive affect. These results, with the sharp differences between the rich and poor regions of the world, which are also the high fertility and low fertility regions of the world, suggest a line of investigation in which the emotional consequences of children depend on how scarce or plentiful they are. We shall return to this below.

Table 4 tabulates the differences in outcomes for each region and for the world as a whole. For each outcome, the first pair of columns show the uncontrolled difference (and t-value) for people aged 65 and older between those who do or do not live with a child; these are computed from regressions of each outcome on an indicator for the presence of children and dummy variables for each country, either

in the world as a whole, or in a region. The second pair of columns shows the difference when we control for sex, single years of age, education, income, religiosity, and indicators for satisfactory self-reported health status and disability. These estimates should not be treated overly seriously, given the difficulties of measuring income, education, and health status (and even age) in some countries.

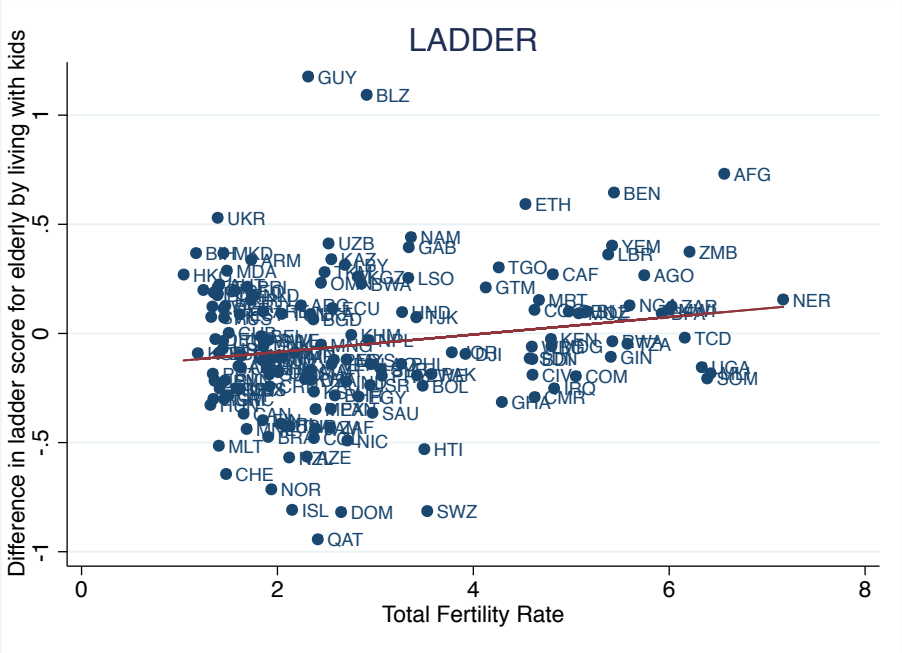
Table 4: Children, life evaluation, and emotions around the world

	Ladder				Positive Affect				Negative Affect			
	No controls		Controls		No controls		Controls		No controls		Controls	
	b	t	b	t	b	t	b	t	b	t	b	t
World	–0.01	0.5	–0.06	3.5	0.01	4.5	0.01	3.0	0.02	6.3	0.02	7.3
Africa	0.02	0.4	–0.01	0.1	0.01	1.1	0.01	0.1	–0.03	2.7	–0.02	2.6
E. Asia	–0.16	2.7	–0.21	3.8	0.00	0.5	0.00	0.0	0.04	5.3	0.04	5.5
Ex-Comm	0.19	5.1	0.02	0.7	0.05	5.8	0.03	3.7	–0.00	0.2	0.01	1.2
LAC	–0.09	1.9	–0.13	2.8	0.01	1.3	0.01	0.8	0.02	4.2	0.02	4.0
M East	–0.09	1.6	–0.14	2.4	–0.01	0.8	–0.01	0.8	0.03	2.9	0.04	3.3
N Europe	–0.02	0.2	–0.05	0.6	0.00	0.0	–0.01	0.5	0.07	5.1	0.07	4.8
S Asia	0.00	0.1	–0.10	2.1	0.02	2.5	0.01	1.3	0.02	2.2	0.03	3.3
S Europe	–0.21	1.8	–0.29	2.5	–0.01	0.6	–0.02	0.9	0.06	3.3	0.06	3.7
Anglo	–0.12	1.0	–0.09	0.8	–0.03	1.6	–0.03	1.8	0.08	4.5	0.08	4.8

Notes: Positive affect is the sum of happiness, enjoyment, and smiling less sadness, all divided by 4. Negative effect is the average of worry, stress, and anger. The estimates come from regressions that either, in the uncontrolled case, contain country fixed effects, or in the controlled case, country fixed effects plus controls for income, sex, education, single years of age, marital status, religiosity, disability, and self-reported health status.

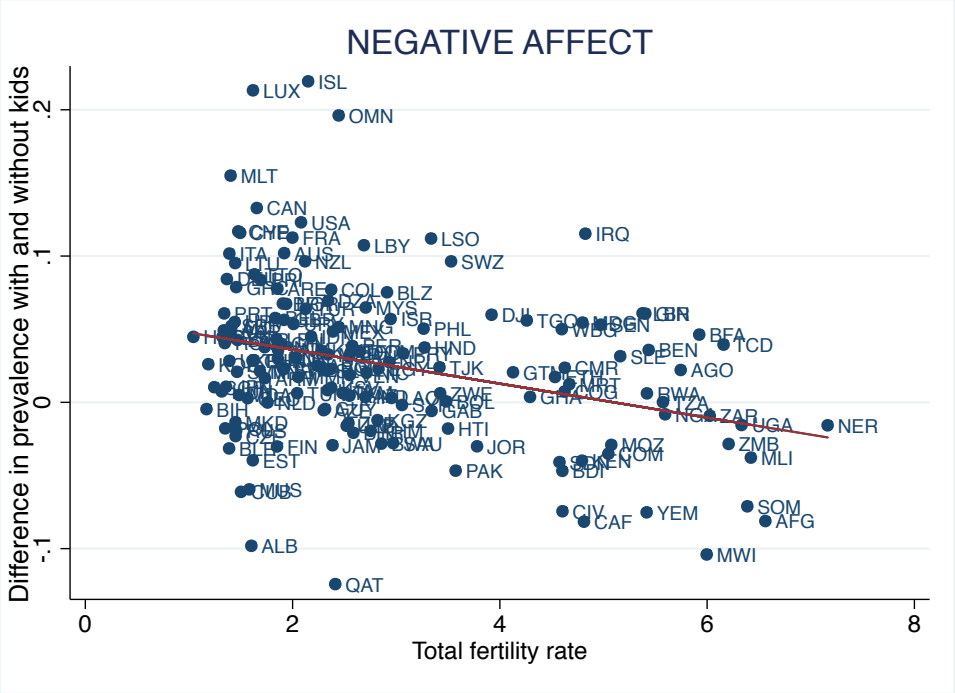
The estimates in Table 4 confirm what we have already seen in Figures 4 and 5, that life evaluation is lower for those with children among the elderly in the richest countries, and that children in the homes of the elderly are associated with more negative affect in most regions, but more so in the richest countries. The controls do little to explain the negative association between the ladder and life evaluation; indeed, for regions other than the Anglo region, the association with children is smaller or more negative in the presence of the controls. For most of the world, there is

thus little evidence of negative selection into living with a child. That there is typically more negative and positive affect among the elderly living with children is essentially unaffected by the presence of the controls. Outside of the English-speaking world, the emotional and evaluative patterns of the elderly living with children look very similar to the patterns among their parents.



A final way of looking at these estimates is shown in Figures 6 and 7, which looks at total fertility rates around the world. For each country we have computed the difference in average ladder and negative affect scores for all adults aged 55 and older (the ten year extension is to increase the sample sizes for some countries that have only been sampled once). The two figures then plot these differences against the total fertility rate for each country. For Figure 6, which shows differences in ladder scores, there is a positive correlation with total fertility, whereas in Figure 7,

which shows differences in negative affect, there is a somewhat stronger negative correlation. (There is considerable sampling variability for the outcome measures in several countries, which weakens both scatters, though both are statistically significant.) In places where fertility is high, the elderly generally have relatively higher life evaluation when they live in a household containing a person under 15, and where fertility is low, they generally have lower life evaluation. Where high fertility is seen as desirable, older people do not feel that their life is compromised by living in a family with a young child. In such countries, they are also less likely to be angered, stressed, or worried by the presence of children. Our results are consistent with the view that the negative evaluative and emotional consequences for the elderly of living with children are most likely a consequence of the fertility transition.



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