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and Well-Being**

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Retirement, Personality, and Well-Being

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Abstract

This paper investigates how two sources of individual heterogeneity – personality and pathways of leaving work – impact the well-being effects of retirement. Our findings suggest that retirement does *not* affect all individuals in the same way. Early retirement raises life satisfaction and leisure satisfaction. Mandatory retirement reduces income satisfaction but increases leisure satisfaction. For people who leave work for reasons related to ill health or family care, as well as those who become unemployed, we find that they report significantly lower satisfaction with their overall life and income. We further show that the strength of these effects depends upon personality.

Keywords: retirement, subjective well-being, personality traits, individual heterogeneity.

JEL codes: A12, C23, I10.

1. Introduction

In recent years, industrialized countries have seen a substantial rise in the proportion of older population. As medical advancement and better living conditions allow people to live longer many people now live a decade or more after the end of their work life, spending a greater proportion of their life in retirement. At the individual level, retirement is a milestone that often leads to changes in health, social relations, finances and the allocation of time and, hence, in individual satisfaction with different domains of life. In this paper we investigate how two sources of individual heterogeneity – personality and pathways of leaving work – impact the well-being effect of retirement. We find that the path to retirement differentially affects self-assessed well-being after retirement, and that the strength of these effects depends upon personality.

Relatively little work has examined the well-being effects of retirement. Previous findings on this topic are also quite diverse with some studies identifying a positive retirement impact (e.g. Latif, 2011; Johnston and Lee, 2009; Charles, 2004), and other studies finding little impact (e.g. Blanchflower and Oswald, 2004; Kapteyn et al., 2013). In relation to satisfaction with different areas of an individual's life there is but one prior study (Bonsang and Klein, 2012) that is closely related. Using the German Socio-Economic Panel they showed that voluntary retirement has a negligible effect on overall life satisfaction but satisfaction with leisure and household income are offsetting; retirement improves leisure satisfaction and decreases satisfaction with household income. Results were very different for those who retire involuntarily; retirement has a strong and negative impact on life satisfaction, with a smaller positive impact on leisure satisfaction and more of a negative impact on satisfaction with income.

In this paper we add to their analysis in three ways. First, we use a different data set, the British Household Panel Survey (BHPS), a nation-wide longitudinal data set from the United Kingdom, allowing us to explore if cultural differences between two countries might cause retirement to have differential impacts on satisfaction. In addition we consider two additional sources of individual heterogeneity – pathways of leaving work/retiring and personality.

To explore the impact of retirement pathways we broaden the definition of “retired” to disaggregate the pathways people use to leave work. Bonsang and Klein (2012) define “voluntary retired” as someone who reports to be not working with definitely no intention of going back to work. They define as “involuntary retired” those who were not working but who, at the initial wave of not being employed, left open the possibility of returning to work

and whom did not report paid employment during the subsequent waves of the panel. Individuals responding in the second set but who returned to work during the panel were classified as “temporarily unemployed” and dropped from their analysis. We use self-reported working status to define five categories of respondents used in our analysis; “working” (those reporting either paid employment or self-employed in the BHPS), “early retired” (those reported being retired and under the mandatory retirement age), “mandatory retired” (those reporting being retired and over the mandatory retirement age), “forced retirement” (those reporting that they are not working because of illness, disability or home responsibilities), and “unemployed” (those who report being unemployed).

The economic literature incorporating personality as a source of individual heterogeneity for well-being is relatively new. Work by Binder and Coad (2011), Clark et al. (2006) and Budria (2013) revealed differential effects across the well-being distribution, but offered little insight on why it exists. Meanwhile, earlier studies showed personality affects subjective well-being (Myers and Diener, 1995; Rammstedt, 2007; Heady, 2008; Steel et al., 2008), and a number of studies have looked at how personality affects coping with such diverse life events as unemployment (Boyce et al., 2010), income changes (Boyce and Wood, 2011b; Budria and Ferrer-i-Carbonell, 2012; Soto and Luhmann, 2013), marriage, childbirth and widowhood (Yap et al., 2012), illness (Kesavayuth et al., 2015) and disability (Boyce and Wood, 2011a).

Although individual heterogeneity constitutes a large portion (44-52%) of the variation in well-being (Lykken and Telegen, 1996), there has been little analysis of how personality affects well-being after retirement. The only previous analysis we were able to find was Robinson et al. (2010) who utilized a one time-point online survey design with 365 participants to test how the “Big Five” personality traits¹ affected retirees’ life satisfaction. They showed that three personality traits – agreeableness, conscientiousness and low neuroticism – were most significant predictors of satisfaction with overall life among retirees.

We improve on their approach by adding personality characteristics² to a fixed effects panel data analysis. Besides providing a better understanding of how personality affects the impact of retiring on an individual’s well-being, it allows us to assess the extent to which snapshot distinctions between retirees and non-retirees, as done by Robinson et al. (2010), might be valuable sources of information for the actual effects of retirement. Our empirical

¹ The “Big Five” personality characterization is discussed later in this paper.

² We also use the Big Five characterization of personality, which were included in year 2005 (wave 15) of the BHPS.

approach takes into account that retirement may change personality (Roberts et al., 2005; Löckenhoff et al., 2009). To overcome possible endogeneity we use variables that describe pre-retirement personality, an approach also used by Bowles et al. (2001) and Boyce and Wood (2011a) in the context of other life events that are likely to change personality.

Overall, our approach amounts to asking whether personality can affect how well people cope with retirement, and whether such personality impact might depend upon the pathway by which an individual retired. Our findings reject the hypothesis of ‘homogeneous’ behavior across distinct subgroups of individuals, providing some of the first longitudinal evidence on the relationship between pathways to retirement, personality and well-being.

The paper is structured as follows. Section 2 reviews previous research on personality, especially how it relates to retirement. Section 3 discusses our empirical model and strategy. Section 4 describes the data. Section 5 presents the results. Section 6 considers extensions and limitations to our analysis. Section 7 concludes the paper.

2. Personality and retirement

A widely used model for describing individual personality is the Big Five factor model (McCrae and Costa, 1987; Goldberg, 1993). It views personality as a multi-faceted construct consisting of five broad dimensions: agreeableness, conscientiousness, extraversion, neuroticism and openness. A review of the Big Five model can be found in John and Srivastava (1999). As we noted earlier, Robinson et al. (2010) use the Big Five construct in a cross-sectional analysis of retirement satisfaction, and found that of the Big Five personality traits, agreeableness and conscientiousness were positively associated with life satisfaction after retirement; while neuroticism was negatively associated with life satisfaction in retirement. Based on this study and the content of each personality trait, we hypothesize what could be the specific role of each personality trait when individuals leave their work/retire, potentially providing a better understanding of how distinct subgroups of individuals react to the experience of retiring.

Conscientiousness describes the attribute of self-control, the desire for success, order and persistence. Previous studies have found that individuals high in conscientiousness tend to pay more attention to retirement preparations compared to typical individuals (Reis and Gold, 1993). We therefore expect that conscientiousness might positively mediate the link between retirement and well-being, a hypothesis that also appears to be consistent with earlier work suggesting that conscientiousness is associated with proactive motivation (Colquitt and Simmering, 1998).

Agreeableness reflects the quality of interpersonal relationships; while extraversion relates to the quantity and intensity of relationships (DeNeve and Cooper, 1998). Individuals scoring high on agreeableness and/or extraversion are more likely than typical individuals to enjoy a network of supportive relations at their workplace. On retiring, however, they may lose this network of coworkers and thereby suffer a drop in their well-being. At the same time, it is possible that individuals higher in agreeableness and/or extraversion, who tend to be more sociable, likeable and outgoing, may have an existing network of support outside of work, or will be able to develop a wider and stronger network of supportive relationships after retiring (Reis and Gold, 1993; Robinson et al., 2010). Since both positive and negative effects are possible, it is largely an empirical question to determine which effect is stronger.

Openness captures attributes like flexibility, creativity, curiosity and preference for novelty. Individuals who score high on openness may be more willing than typical individuals to try ‘new’ intellectual and other challenges, which could enhance their life satisfaction in retirement (Reis and Gold, 1993). On leaving work, however, individuals with high openness levels may have fewer opportunities for exposing themselves to work-related challenges, dampening any expectations about a possible mediating effect of openness on the impact of retirement on well-being. Hence, again it appears to be an empirical question about which impact is stronger.

Lastly, neuroticism is associated with characteristics like emotional instability and a proneness to anxiety. Past research has suggested that individuals who score high on neuroticism may not consistently prepare for their retirement (Reis and Gold, 1993). This leads us to hypothesize that neuroticism might negatively mediate the link between retirement and well-being. Consistent with this hypothesis, previous studies have found that highly neurotic individuals are more prone to making negative appraisals of their life situation, which could lead to lower well-being (e.g. Gunthert et al., 1999).

3. Model and estimation

Let SWB_{it} be subjective well-being (satisfaction with life overall, satisfaction with income or satisfaction with free time), where i denotes the set of individuals who are observed at different time-points, t . The linear fixed effects model is given by

$$SWB_{it} = \mu_t + \beta r_{it} + \theta x_{it} + \gamma z_i + a_i + \varepsilon_{it} \quad (1)$$

where μ_t is an intercept, r_{it} is a vector of dummy variables indicating individual i 's employment situation at time t , including an indication of the pathway (described above) used for leaving work if she/he is not employed in a specific time period, x_{it} is a vector of predictor variables that vary over time, and z_i is a vector of predictor variables that do not vary over time.

There are two “error terms” in equation (1), the person-specific error a_i , and the idiosyncratic error ε_{it} . The person-specific error varies only across individuals and captures the combined effect on SWB_{it} of all unobserved variables that are time-invariant and are known as “fixed effects”. The idiosyncratic error can differ among individuals as well as time-points and represents random variation (which may be due to unmeasured variables) at each point in time.

Most empirical studies typically assume that an individual’s personality is a component of the person-specific error, a_i (e.g. Frijters et al., 2004; Latif, 2011; Bonsang and Klein, 2012). When personality is treated as such a “fixed effect” it is no longer possible to obtain estimates for the independent effects of an individual’s personality characteristics on her/his well-being. To test our hypothesis that the well-being effect of retirement might depend upon personality, we modify the fixed effects model in equation (1) by including interactions between the pathways for leaving work, r_{it} , and personality characteristics. Our fixed effects model therefore becomes

$$SWB_{it} = \mu_t + \beta r_{it} + \delta \mathbf{p}_i \cdot r_{it} + \theta \mathbf{x}_{it} + \gamma \mathbf{z}_i + a_i + \varepsilon_{it} \quad (2)$$

where \mathbf{p}_i is the vector of personality characteristics. Because unobserved heterogeneity can include more factors than just the individual’s personality the fixed effects estimator is likely the correct choice even when personality variables are available. Using the fixed effects estimator has the additional advantage of controlling for cohort heterogeneity that has been highlighted by previous work (e.g. Jürges, 2003).

Within the model given by equation (2), our parameters of interest are the vector β , on the pathways of leaving work, and the vector δ , on the interaction terms between personality and pathways of leaving work. Finding any or all of the coefficient estimates within these vectors are statistically significant would provide evidence that the well-being effect of retirement depends on retirement pathways and/or personality.

4. Data

Our data source is the British Household Panel Survey (BHPS). The BHPS, which was collected during the period 1991 to 2008, is a longitudinal household survey representative of the population that resides in the United Kingdom. Because we are interested in how life satisfaction changes as people transition to retirement, our sample consists of individuals between 50 and 75 years old who reported they were working in 2005.³ Some individuals in our sample left work/retired during the subsequent years from 2006 to 2008. Participants answered questions about socio-economic measures and measures related to satisfaction with different domains of their life every year, while questions related to personality measures were completed only in year 2005.

The main analysis of the paper will be conducted on the information from 2005 to 2008. Starting with an unbalanced panel of 8,649 observations, we eliminated respondents with missing answer for the questions required for our analysis. This process of constructing our data set resulted in 2,024 (unique) individuals and 7,392 observations.⁴

4.1 Satisfaction with life and other domains

In the BHPS, respondents are asked to evaluate satisfaction with 8 different domains of life, and satisfaction with life overall. The question on satisfaction with overall life was placed strategically in the questionnaire, after respondents first evaluated how satisfied they are with the 8 specific areas. Answers are coded on a scale of 1 to 7, where 1 means “not satisfied at all” and 7 means “completely satisfied” (see Appendix B for more details).

Because retirement is usually accompanied by large changes in income and leisure, we use satisfaction with income and the amount of free time (leisure) as two of our dependent variables in estimating equations (1) and (2). We also use overall life satisfaction as a dependent variable to reveal how personality affects overall satisfaction after retirement. As is common in the well-being literature, we treat the responses as cardinal.⁵ To aid the

³ Reported themselves as either self-employed or in paid employment in 2005.

⁴ We tested to see if the dropped observations due to missing values (1,257 observations) differed from those used in the analysis. At a p-value < 0.01 most key variables, i.e. age, health related status, household income, and all of the Big Five did not differ between the two groups. The dropped group, however, had a statistically higher proportion of male respondents, and these respondents reported higher overall life, income and leisure satisfaction.

⁵ Treating Likert responses as ordinal or cardinal when used as the dependent variable in regressions does not lead to important differences in the conclusions (Ferrer-i-Carbonell and Frijters, 2004; Boyce and Wood, 2011b; Latif, 2011).

interpretation of our results, we standardized the satisfaction scores across our subsample so that the mean is zero and variance is one.

4.2 Pathways of leaving work

As discussed above, we define an individual who is currently engaged in paid work or self-employed as “working” and we define four pathways of leaving work: (i) early retirement, (ii) mandatory retirement, (iii) ‘forced’ retirement for reasons related to family care, illness or disability, and (iv) unemployed.⁶ Among the 7,392 observations used in our analysis, 9.8% (726, encompassing 242 unique individuals) are defined as not working and 90.2% are defined as working. The breakdown of responses categorized as not working is 24.7% early retired, 58.56% mandatory retired, 13.2% ‘forced’ retired, and 3.6% unemployed.

4.3 Personality measures

Personality measures were obtained in year 2005 by using a 15-item inventory (see Appendix A). Each personality dimension is captured by the answers to 3 questions that are coded on a scale of 1 to 7, where 1 means “does not apply to me at all” and 7 means “applies to me perfectly”. The possible value range for each trait’s total score is from 3 to 21. To aid the interpretation of our results, we standardized personality scores across our subsample so that the mean is zero and variance is one. The Cronbach α reliabilities across the entire BHPS sample in 2005 were 0.53 (agreeableness), 0.52 (conscientiousness), 0.54 (extraversion), 0.68 (neuroticism) and 0.67 (openness). As a basis of comparison, in the German Socio-Economic Panel Survey (GSOEP) which also collected personality measures, the values of the α reliabilities were between 0.50 and 0.66 (Soto and Luhmann, 2013). These relatively low α reliabilities are likely the result of using a shorter version of the Big Five inventory (Tavares, 2010, John et al., 1991). Previous research by Gerlitz and Schupp (2005) shows that brief scales of the Big Five inventory demonstrate both strong internal coherence and satisfactory reliability, while Gosling et al. (2003) provide empirical evidence supporting the use of five and ten item inventories for assessing personality in the Big Five construct.

Since previous work has shown that retirement may change personality (Roberts et al., 2005; Löckenhoff et al., 2009), using pre-retirement personality as suggested by Bowles et al. (2001) and Boyce and Wood (2011a) avoids potential endogeneity. Hence, a more

⁶ We cannot reject a null hypothesis that early retired is exogenous in our model. A Wald test of the coefficient on the variable “residual” had a chi-square (1)=1.58 with a p-value in excess of 0.2 (Terza, et al., 2008, footnote 9).

precise specification of the question we address is how *pre-retirement* personality affects how an individual copes with retirement. Since we limit our sample to individuals who were working in 2005, the pre-retirement personality traits measured in 2005 (the only year providing data on personality traits in the BHPS) are free from the influence of retirement.⁷

4.4 Other explanatory variables

Our analysis controls for the potentially confounding effects of socio-economic variables that may be correlated with the pathway of leaving work and personality while, at the same time, influencing satisfaction with overall life and domains of life. Table 1 presents a full description of these variables, and Table 2 provides (non-standardized) descriptive statistics.

5. Results

5.1 Preliminary results

As a baseline we first estimate equation (1), the fixed effects model without personality interactions. The estimated coefficients for pathways to not working are reported in Table 3.⁸ The results suggest that early retirement has a positive impact on satisfaction with overall life and satisfaction with one's time spent in leisure (at p-values < 0.01). It also has a negative impact on income satisfaction, although the estimate is statistically insignificant at conventional levels indicating, perhaps, that early retirees have planned for the lower income associated with retirement or focus on the gain in leisure satisfaction, leading to a higher level, overall, of life satisfaction. Furthermore, we find that mandatory retirement is associated with lower income satisfaction but higher leisure satisfaction (both estimates have p-values < 0.01) while overall life satisfaction remains unaffected. Given that these people have no choice but to retire, it is not surprising that retirement did not change overall life satisfaction. Individuals who leave work for reasons related to disability, illness or family care, and those who become unemployed, report significantly lower life and income satisfaction but no change in their satisfaction with leisure. People not working for these

⁷ It might be wondered whether personality affects the decision of individuals to leave work. We examined this possibility by estimating a logit model using random effects, so that personality variables can be included as independent predictors. When personality variables were the only predictors, we found that the coefficient for agreeableness and openness was significant at the 5% level. When the other predictors in our main analysis were included in the logit model, we did not find any evidence that personality influences the probability of leaving work. As noted in footnote 6, we do not reject (with a p-value of 0.05) a hypothesis that "early retired" is exogenous in our estimation.

⁸ All reported parameter estimates are relative to "working" (the omitted category). Full results are available from the authors.

reasons may be involved in family care, their own health issues, or dealing with unemployment, so actual leisure time may not increase appreciably.

These findings provide new evidence suggesting that the well-being effects of retirement differ substantially across individuals and, in fact, may depend crucially on how people transcend from work to retirement – all retirees are not the same. Those that retire early are significantly more satisfied with their overall life than those who retire because they reach mandatory retirement age. If most early retirees do so voluntarily, it would indicate that requiring retirement due to age (those in our mandatory retirement category) has significant impacts on well-being. Most telling, perhaps, is that income satisfaction is strongly lower for those who reach mandatory retirement. They are not adequately prepared for the decrease in income, something that could potentially be countered with better education and planning help. It also suggests that mandatory retirement policies should be revisited.

5.2 Testing for retirement-personality interactions

Our next step is to test whether personality mediates the impact of retiring on an individual's well-being. Using the model given by equation (2), our parameters of interest still include those in the vector β but now also include those in the vector δ , on the interaction terms between personality and different pathways of leaving work. Finding any or all of the parameter estimates within the δ vector are statistically significant provides evidence in support of the presence of interactions between personality and pathways of leaving work/retiring.

The estimates reported in Table 4 provide evidence to support personality-pathways interactions. Consistent with the results reported in Table 3, the direct effects of the different pathways of leaving work continue in sign, statistical significance, and strength. But we find personality characteristics differentially affect pathway associations with satisfaction.

Extraversion mattered significantly for those who retired early, having a negative coefficient for all three measures of satisfaction. Since the personality and satisfaction variables have been standardized, an early retired individual with an average extraversion measurement⁹ would see her overall life satisfaction increased by 0.181 standard deviations. Notice, this gain is almost perfectly offset by the loss that comes to the person who measures one standard deviation above the mean on extraversion and retires early. Extraverted early

⁹ Since personality measures have been standardized, a person with average extraversion has a value of 0 for that variable. Hence the only impact of early retirement for such a person is the coefficient on “Early retired” without cross effects.

retirees lose almost 29 percent ($0.156/0.543$) of the gain in leisure satisfaction that the average early retiree enjoys. They also have significantly lower satisfaction with their income relative to people who are working.

Mandatory retirees are most affected if they are highly agreeable. On hitting mandatory retirement, a typical individual is estimated to experience an increase in satisfaction with her/his leisure time by 0.498 standard deviations. However, for an individual with high levels of agreeableness (i.e. one standard deviation above the mean), mandatory retirement is estimated to increase leisure satisfaction only by 0.338 ($=0.498-0.160$) standard deviations, less than for typical mandatory retired individuals. Moreover, agreeable people (again, those one standard deviation above the mean) now suffer a decrement in overall life satisfaction of up to 0.131 standard deviations relative to people who are working. However, the positive effect of mandatory retirement on leisure satisfaction is magnified for conscientious individuals. An individual one standard deviation above the mean in conscientiousness increases leisure satisfaction by over 26 percent ($0.132/0.498$) relative to individuals with average conscientiousness levels. Finally, the negative impact of mandatory retirement on satisfaction with income is 50 percent larger when we take into account openness. More specifically, someone one standard deviation above the mean in openness will have 50 percent less satisfaction with their income, holding all else constant, than an individual with a mean measure of openness.

As we found in Table 3, being forced to retire due to life circumstances negatively impacts satisfaction with life and income. However, high levels of neuroticism can offset this for income satisfaction, by over one-third for an individual one standard deviation above the average in neuroticism (although this effect is only marginally significant at the 10% level). Interestingly, when forced to retire, extroverted individuals are able to gain satisfaction in their income of about 0.257 standard deviations, compared to those working.

Finally, conscientious people who are unemployed suffer far less loss in life satisfaction and income satisfaction than the average unemployed person. In fact, for an individual one standard deviation above the mean in conscientiousness, almost 94 percent ($=0.526/0.557$) of the loss in life satisfaction is gone. And highly neurotic individuals more than offset the negative impact on income satisfaction. A table containing a summary of our results can be found in Appendix C.

6. Robustness and limitations

Although we cannot reject a null hypothesis that early retirement is an exogenous variable in our model (see footnote 6), as a robustness check, we repeated our analysis by dropping those individuals who retire early. The estimated coefficients of equation (2) in Table 5 show that our results remain the same, thus lending further support for our earlier empirical strategy.

We conducted an additional robustness check by considering a more narrowly focused definition of retirement. Defining only individuals who hit mandatory retirement as our retired group, we included as additional controls dummy variables that are equal to 1 if an individual is unemployed, disabled or takes care of her/his family. Given this new specification, the control group expands to include not only individuals who are working, but also those who are unemployed, disabled and family care-givers. Again, early retirees are excluded from the analysis. Table 6 confirms our earlier findings; the direct impact of mandatory retirement on satisfaction with income and leisure keeps its magnitude and significance; and all personality interactions follow the same pattern. These results suggest that accounting for the different pathways of leaving work may provide a more refined approach for understanding the well-being effects of retirement.

The current study is not without shortcomings. One particular limitation relates to the fact that personality measures in the BHPS were obtained only in year 2005. While having data on personality for one wave still allows us to address potential endogeneity by using *pre-retirement* personality, it does not account for any change in personality that might have occurred simultaneously with retirement. Another limitation stems from the fact that the BHPS, like the GSOEP, uses a shorter version of the Big Five inventory on personality. Although Gerlitz and Schupp (2005) showed that these brief scales demonstrated both strong internal coherence and satisfactory reliability, the use of a more detailed questionnaire for assessing personality would likely give better characterizations of personality.

7. Conclusion

Previous empirical analysis has shown significant impacts in satisfaction with different life domains for those who stop working, including retirees. Drawing on data from the BHPS, this paper provides some of the first longitudinal evidence on how different *pathways* of leaving work affect an individual's well-being, and whether specific personality traits augment or mitigate the well-being effects of retirement.

While the study of individual heterogeneity in retirement is very much in its infancy, the findings of this paper provide evidence in support of two conclusions. First, in understanding the well-being effect of retirement, it may also be important to consider

people's specific pathways of leaving work. For average people, in terms of personality, unemployment or being forced from work because of life situation adversely affects life satisfaction. Mandatory retirement does not adversely affect overall life satisfaction, but clearly satisfaction with income falls while satisfaction with leisure apparently offsets that negative impact. Early retirees seem better prepared for the loss in income, suffering no statistically significant decrease in their satisfaction and having significant increases in the satisfaction in the life and leisure domains. An important message from these results is that those coming up to mandatory retirement or facing situations that may force them out of work need help to better prepare for such life changes.

Second, we found that how leaving work affects satisfaction in different life domains often depends on personality as well as pathway. For example, we found that individuals who hit mandatory retirement are penalized (relative to typical individuals) for being highly agreeable. However, we did not find such evidence of heterogeneity between highly agreeable and typical individuals for any of the other pathways of leaving work.

Overall, we find that the well-being effect of retirement is heterogeneous over both pathway and personality. Complementing previous work in economics and psychology, these findings may be useful in informing policy choices for older individuals and in their own planning. Individuals who are forced to retire, for instance, may benefit from specific interventions aiming to alleviate lower satisfaction related to this sudden life change, as also noted by Reis and Gold (1993). Counseling programs for retirement, disability, family circumstance and unemployment that remove people from working should also consider how to tailor the message and support to different personality types. In highlighting these differences among older individuals, we aim to encourage new research that could further our understanding of individual heterogeneity in retirement. Replicating the aforementioned findings for different countries and/or subgroups of individuals (e.g. by gender or job type) could be another valuable source of information for use in retirement preparation courses.

References

- Binder, M., and Coad, A. (2011) "From Average Joe's happiness to Miserable Jane and Cheerful John: Using quantile regressions to analyze the full subjective well-being distribution", *Journal of Economic Behavior and Organization*, 79, 275-290.
- Blanchflower, D. G., and Oswald, A. J. (2004) "Well-being over time in Britain and the USA", *Journal of Public Economics*, 88(7), 1359-1386.
- Bonsang, E., and Klein, T. J. (2012) "Retirement and subjective well-being", *Journal of Economic Behavior and Organization*, 83(3), 311-329.
- Bowles, S., Gintis, H., and Osborne, M. (2001) "Incentive-enhancing preferences: Personality, behavior, and earnings", *The American Economic Review*, 91, 155-158.
- Boyce, C.J., Wood, A.M., and Brown, G.D.A. (2010) "The dark side of conscientiousness: Conscientious people experience greater drops in life satisfaction following unemployment", *Journal of Research in Personality*, 44, 535-539.
- Boyce, C. J., and Wood, A. M. (2011a) "Personality prior to disability determines adaptation: Agreeable individuals recover lost life satisfaction faster and more completely", *Psychological Science*, 22, 1397-1402.
- Boyce, C. J., and Wood, A.M. (2011b) "Personality and the marginal utility of income: Personality interacts with increases in household income to determine life satisfaction", *Journal of Economic Behavior and Organization*, 78, 183-191.
- Budria, S. (2013) "Are relative-income effects constant across the well-being distribution?", *Journal of Happiness Studies*, 14, 1379-1408.
- Budria, S. and Ferrer-i-Carbonell, A. (2012) "Income Comparisons and Non-cognitive Skills," SOEP papers on Multidisciplinary Panel Data Research 441, DIW Berlin, The German Socio-Economic Panel (GSOEP).
- Charles, K. (2004) "Is retirement depressing? Labor force inactivity and psychological well-being in later life", *Research in Labor Economics*, 23, 269-299.
- Clark, A., Etilé, F., Postel-Vinay, F.Y.B., Senik, C., and van der Straeten, K. (2005) "Heterogeneity in reported well-being: Evidence from twelve European countries", *Economic Journal*, 115, 118-132.
- Colquitt, J. A., and Simmering, J. (1998) "Conscientiousness, goal orientation, and motivation to learn during the learning process: A longitudinal study", *Journal of Applied Psychology*, 83, 654-665.
- DeNeve, K.M. and Cooper, H. (1998) "The Happy Personality: A Meta-Analysis of 137 Personality Traits and Subjective Well-Being", *Psychological Bulletin*, 124, 197-229.
- Ferrer-i-Carbonell, A. and Frijters, P. (2004) "How important is methodology for the estimates of the determinants of happiness?", *Economic Journal*, 114, 641-659.

- Frijters, P., Haisken-DeNew, J.P. and Shields, M.A. (2004) “Money does matter! Evidence from increasing real income and life satisfaction in East Germany following reunification”, *American Economic Review*, 94, 730-740.
- Gerlitz, J.Y, and Schupp, J. (2005) “Zur erhebung der Big-Five-basierten persönlichkeitsmerkmale im SOEP [Collecting the Big-Five personality traits in SOEP]. *DIW Research Notes*, 4, 2005.
- Goldberg, L.R. (1993) “The structure of phenotypic personality-traits”, *American Psychologist*, 48, 26-34.
- Gosling, S.D., Rentfrow, P.J., and Swann, W.B., Jr. (2003) “A Very Brief Measure of the Big Five Personality Domains”, *Journal of Research in Personality*, 37, 504-528.
- Gunthert, K., Cohen, L., and Armeli, S. (1999) “The role of neuroticism in daily stress and coping”, *Journal of Personality and Social Psychology*, 77, 1087-1100.
- Headey, B. (2008) “Life Goals Matter to Happiness: A Revision of Set-Point Theory”, *Social Indicators Research*, 86, 213-231.
- John, O.P., Donahue, E.M., and Kentle, R.L. (1991) “The big five inventory—versions 4a and 54”, *Berkeley: University of California, Berkeley, Institute of Personality and Social Research*.
- John, O.P., and Srivastava, S. (1999) “The Big Five trait taxonomy: History, measurement, and theoretical perspectives”, in L.A. Pervin and O.P. John (Eds.), *Handbook of personality: Theory and research* (2nd ed., pp. 102–138). New York, NY: Guilford Press.
- Johnston, D. W., and Lee, W. S. (2009), “Retiring to the good life? The short-term effects of retirement on health”, *Economics Letters*, 103(1), 8-11.
- Jürges, H. (2003) “Age, cohort, and the slump in job satisfaction among West German workers”, *Labour*, 17(4), 489-518.
- Kapteyn, A., Lee, J., and Zamarro, G. (2013) “Does Retirement Induced through Social Security Pension Eligibility Influence Subjective Well-being? A Cross-Country Comparison”, *Michigan Retirement Research Center Research Paper*, 2013-301.
- Kesavayuth, D., Rosenman, R. E., and Zikos, V. (2015) “Personality and health satisfaction”, *Journal of Behavioral and Experimental Economics*, 54, 64-73.
- Latif, E. (2011) “The impact of retirement on psychological well-being in Canada”, *The Journal of Socio-Economics*, 40(4), 373-380.
- Löckenhoff, C. E., Terracciano, A., and Costa Jr, P. T. (2009) “Five-factor model personality traits and the retirement transition: longitudinal and cross-sectional associations”, *Psychology and Aging*, 24 (3), 722-728.

- Lykken, D. and Tellegen, A. (1996) "*Happiness is a Stochastic Phenomenon*", *Psychological Science*, 7, 186-189.
- McCrae, R.R., and Costa, P.T. (1987) "Validation of the 5-factor model of personality across instruments and observers", *Journal of Personality and Social Psychology*, 52, 81-90.
- Myers, D.G. and Diener, E. (1995) "Who is happy?", *Psychological Science*, 6, 10-19.
- Rammstedt, B. (2007) "Who worries and who is happy? Explaining individual differences in worries and satisfaction by personality", *Personality and Individual Differences*, 42, 1626-1634.
- Reis, M., and Gold, D. P. (1993) "Retirement, personality, and life satisfaction: A review and two models", *Journal of Applied Gerontology*, 12(2), 261-282.
- Roberts, B. W., Wood, D., and Smith, J. L. (2005) "Evaluating five-factor theory and social investment perspectives on personality trait development", *Journal of Research in Personality*, 39, 166-184.
- Robinson, O. C., Demetre, J. D., and Corney, R. (2010) "Personality and retirement: Exploring the links between the Big Five personality traits, reasons for retirement and the experience of being retired", *Personality and Individual Differences*, 48(7), 792-797.
- Soto, C.J. and Luhmann, M. (2013) "Who can buy happiness? Personality traits moderate the effects of stable income differences and income fluctuations on life satisfaction", *Social Psychological and Personality Science*, 4, 46-53.
- Steel, P., Schmidt, J. and Shultz, J. (2008) "Refining the Relationship Between Personality and Subjective Well-Being", *Psychological Bulletin*, 134, 138-161.
- Tavares, L.P. (2010) "Who delays childbearing? The relationships between fertility, education and personality traits" (No. 2010-17), ISER working paper series.
- Terza, J. V., Basu, A., and Rathouz, P. J. (2008) "Two-stage residual inclusion estimation: addressing endogeneity in health econometric modeling", *Journal of Health Economics*, 27(3), 531-543.
- Yap, S.C., Anusic, I., and Lucas, R.E. (2012) "Does personality moderate reaction and adaptation to major life events? Evidence from the British Household Panel Survey", *Journal of Research in Personality*, 46, 477-488.

Table 1: Description of variables

Variable	Definition
Satisfaction with life domains:	
Life satisfaction	Standardized score for self reported measure of how satisfied the individual is with his/her <i>overall life</i> .
Income satisfaction	Standardized score for self reported measure of how satisfied the individual is with his/her <i>household income</i> .
Leisure satisfaction	Standardized score for self reported measure of how satisfied the individual is with the <i>amount of leisure</i> he/she has.
Pathways of leaving work:	5 dummies (excluded dummy: paid employment or self-employed)
Early retired	= 1 if the individual, who is younger than the state pension age (60 for females and 65 for males), reported he/she is retired and had not been looking for work during the last 4 weeks.
Mandatory retired	= 1 if the individual, who is at the state pension age or older (60 for females and 65 for males), reported he/she is retired and had not been looking for work during the last 4 weeks.
Forced to retire	= 1 if the individual said he/she is taking care of family, being ill or disabled and had not been looking for work during the last 4 weeks.
Unemployed	= 1 if the individual said he/she is unemployed and had not been looking for work during the last 4 weeks.
Male	Dummy, 1 if the individual is male.
Household income	Standardized value of the real yearly household income (thousands of pounds) in which the individual resides (inflation adjusted with 2008 as the base year).
Age	Individual's age at the end of the year.
Age squared/100	Square of the individual's age at the end of the year divided by 100.
Outpatient	Dummy, 1 if the individual had seen doctor or visited hospital as outpatient.
Inpatient	Number of days the individual had stayed in hospital as inpatient.
Self employed	Dummy, 1 if the individual is self-employed.
Kid	Dummy, 1 if the individual has children living in the household.
Marital status:	4 dummies (excluded dummy: married and living as a couple)
Never married	=1 if never been married.
Separated	=1 if separated.
Divorced	=1 if divorced.
At least A-level	Dummy, 1 if the individual's highest education level is A-level or higher.
Personality traits	
Agreeableness	Standardized score for agreeableness.
Conscientiousness	Standardized score for conscientiousness.
Extraversion	Standardized score for extraversion.
Neuroticism	Standardized score for neuroticism.
Openness	Standardized score for openness to new experiences.
Regional dummies	11 dummies for the area where the individual was living (excluded dummy: London): North East, North West, Yorkshire & Humber, East Midlands, West Midlands, East of England, South East, South West, Wales, Scotland, Northern Ireland.
Time dummies	4 dummies for time (excluded dummy: wave 15 (2005)): wave 16 (2006) wave 17 (2007), wave 18 (2008).

Table 2.1 Summary statistics (non-standardized)

Variable	Obs	Mean	Std. Dev.	Min	Max
Life satisfaction	7,392	5.350	1.115	1	7
Income satisfaction	7,392	4.782	1.419	1	7
Leisure satisfaction	7,392	4.834	1.474	1	7
Mandatory retired	7,392	0.057	0.233	0	1
Early retired	7,392	0.024	0.154	0	1
Forced to retire	7,392	0.013	0.113	0	1
Unemployed	7,392	0.004	0.059	0	1
Male	7,392	0.542	0.498	0	1
Age	7,392	58.009	4.979	50	75
Household income	7,392	42.083	27.447	0.001	382.319
Kid	7,392	0.093	0.290	0	1
Self employed	7,392	0.158	0.365	0	1
Never married	7,392	0.049	0.216	0	1
Separated	7,392	0.034	0.181	0	1
Divorced	7,392	0.084	0.277	0	1
At least A-level	7,392	0.425	0.494	0	1
Outpatient	7,392	0.733	0.442	0	1
Inpatient	7,392	0.468	4.331	0	180
Agreeableness	7,392	16.408	2.935	3	21
Conscientiousness	7,392	16.534	3.007	3	21
Extraversion	7,392	13.125	3.447	3	21
Neuroticism	7,392	10.348	3.802	3	21
Openness	7,392	13.409	3.637	3	21

Table 2.2 Percentage of each pathway of leaving work

pathways	percentage
Early retired	24.7%
Mandatory retired	58.5%
Forced to retire	13.2%
Unemployed	3.6%
Total (726 observations)	100.0%

Table 3: Estimates of equation (1) using fixed effects

VARIABLES	(1)	(2)	(3)
	Life Satisfaction	Income satisfaction	Leisure satisfaction
Early retired	0.169** (0.0778)	-0.0622 (0.0713)	0.552*** (0.0930)
Mandatory retired	0.00938 (0.0587)	-0.239*** (0.0525)	0.445*** (0.0631)
Forced to retire	-0.377*** (0.135)	-0.536*** (0.126)	0.0668 (0.141)
Unemployed	-0.517*** (0.190)	-0.424*** (0.152)	0.249 (0.204)
Constant	1.861 (2.739)	3.132 (2.756)	-3.435 (2.725)
Observations	7,392	7,392	7,392
R-squared	0.022	0.030	0.084
Number of individuals	2,024	2,024	2,024

Note: * **<1%; **<5%; *<10%. Robust standard errors are in parentheses. The dependent variable is the standardized satisfaction with a mean of 0 and a standard deviation of 1. Age, age squared/100, standardized household income, marital status, education levels, having children in the household, being inpatient, being outpatient, time and demographic areas were additionally controlled for in each of the regressions.

Table 4: Estimates of equation (2) using fixed effects

VARIABLES	(1) Life satisfaction	(2) Income satisfaction	(3) Leisure satisfaction
Early retired	0.181** (0.0791)	-0.0544 (0.0675)	0.543*** (0.0928)
Mandatory retired	0.0536 (0.0584)	-0.248*** (0.0544)	0.498*** (0.0665)
Forced to retire	-0.375** (0.150)	-0.633*** (0.133)	-0.0335 (0.138)
Unemployed	-0.557*** (0.178)	-0.423*** (0.147)	0.231 (0.278)
Early retired x Agreeableness	-0.103 (0.0984)	-0.0989 (0.0793)	0.136 (0.107)
Early retired x Conscientiousness	0.0187 (0.0935)	0.0183 (0.0715)	-0.114 (0.0964)
Early retired x Extraversion	-0.188** (0.0792)	-0.226*** (0.0814)	-0.156* (0.0807)
Early retired x Neuroticism	0.0724 (0.0896)	0.0196 (0.0750)	-0.00280 (0.0839)
Early retired x Openness	0.0151 (0.0782)	0.0833 (0.0744)	-0.0810 (0.0942)
Mandatory retired x Agreeableness	-0.131** (0.0604)	-0.0659 (0.0636)	-0.160** (0.0639)
Mandatory retired x Conscientiousness	0.0588 (0.0600)	0.0611 (0.0572)	0.132** (0.0650)
Mandatory retired x Extraversion	-0.0753 (0.0646)	0.0537 (0.0515)	-0.0738 (0.0579)
Mandatory retired x Neuroticism	0.0506 (0.0578)	-0.00295 (0.0553)	0.0651 (0.0595)
Mandatory retired x Openness	0.0840 (0.0557)	-0.124** (0.0586)	0.0604 (0.0558)
Forced to retire x Agreeableness	-0.355 (0.216)	-0.157 (0.151)	-0.0154 (0.171)
Forced to retire x Conscientiousness	0.141 (0.202)	0.169 (0.148)	0.0885 (0.175)
Forced to retire x Extraversion	0.0294 (0.134)	0.0399 (0.113)	0.257** (0.124)
Forced to retire x Neuroticism	0.0911 (0.141)	0.238* (0.125)	0.259 (0.157)
Forced to retire x Openness	-0.0833 (0.189)	-0.108 (0.128)	-0.227 (0.198)
Unemployed x Agreeableness	-0.149 (0.141)	0.171 (0.143)	-0.0886 (0.229)
Unemployed x Conscientiousness	0.526*** (0.196)	0.302* (0.172)	0.256 (0.365)
Unemployed x Extraversion	-0.141 (0.129)	0.0151 (0.130)	-0.168 (0.122)
Unemployed x Neuroticism	-0.0245 (0.247)	0.479*** (0.177)	-0.160 (0.225)
Unemployed x Openness	0.164 (0.184)	-0.0183 (0.125)	0.299 (0.188)

(Continued on the next page)

Constant	1.520 (2.775)	3.371 (2.787)	-3.624 (2.760)
Observations	7,392	7,392	7,392
R-squared	0.030	0.038	0.093
Number of individuals	2,024	2,024	2,024

Note: * **<1%; **<5%; *<10%. Robust standard errors are in parentheses. The dependent variable is the standardized satisfaction with a mean of 0 and a standard deviation of 1. Age, age squared/100, standardized household income, marital status, education levels, having children in the household, being inpatient, being outpatient, time and demographic areas were additionally controlled for in each of the regressions.

Table 5: Estimates of equation (2) using fixed effects and excluding individuals who are early retired

VARIABLES	(1) Life satisfaction	(2) Income satisfaction	(3) Leisure satisfaction
Mandatory retired	0.0549 (0.0588)	-0.229*** (0.0544)	0.491*** (0.0676)
Forced to retire	-0.441*** (0.164)	-0.619*** (0.131)	-0.0512 (0.138)
Unemployed	-0.578*** (0.178)	-0.415*** (0.143)	0.239 (0.270)
Mandatory retired x Agreeableness	-0.119* (0.0617)	-0.0567 (0.0638)	-0.172*** (0.0666)
Mandatory retired x Conscientiousness	0.0492 (0.0624)	0.0459 (0.0580)	0.137** (0.0680)
Mandatory retired x Extraversion	-0.0723 (0.0647)	0.0501 (0.0504)	-0.0680 (0.0589)
Mandatory retired x Neuroticism	0.0595 (0.0579)	-0.0174 (0.0551)	0.0794 (0.0607)
Mandatory retired x Openness	0.0814 (0.0562)	-0.125** (0.0585)	0.0591 (0.0567)
Forced to retire x Agreeableness	-0.336 (0.238)	-0.187 (0.150)	-0.0148 (0.174)
Forced to retire x Conscientiousness	0.214 (0.238)	0.163 (0.149)	0.0939 (0.184)
Forced to retire x Extraversion	0.0272 (0.140)	0.0114 (0.112)	0.281** (0.133)
Forced to retire x Neuroticism	0.178 (0.163)	0.257** (0.125)	0.272* (0.159)
Forced to retire x Openness	-0.0572 (0.197)	-0.0645 (0.126)	-0.248 (0.207)
Unemployed x Agreeableness	-0.0971 (0.145)	0.167 (0.139)	-0.0562 (0.235)
Unemployed x Conscientiousness	0.507** (0.198)	0.300* (0.165)	0.182 (0.327)
Unemployed x Extraversion	-0.106 (0.120)	0.0891 (0.114)	-0.186 (0.130)
Unemployed x Neuroticism	0.0221 (0.230)	0.554*** (0.161)	-0.189 (0.236)
Unemployed x Openness	0.161 (0.177)	-0.0320 (0.113)	0.299 (0.207)
Constant	1.465 (2.784)	2.219 (2.788)	-3.187 (2.789)
Observations	7,238	7,267	7,254
R-squared	0.028	0.034	0.078
Number of individuals	2,025	2,026	2,025

Note: * **<1%; **<5%; *<10%. Robust standard errors are in parentheses. The dependent variable is the standardized satisfaction with a mean of 0 and a standard deviation of 1. Age, age squared/100, standardized household size, standardized household income, marital status, education levels, having children in the household, being inpatient, being outpatient, time and demographic areas were additionally controlled for in each of the regressions.

Table 6: Estimates of equation (2) using fixed effects with mandatory retirees defined as our retired group (base group includes working individuals, unemployed individuals, disabled individuals and family care givers, excluding early retired individuals).

VARIABLES	(1) Life satisfaction	(2) Income satisfaction	(3) Leisure satisfaction
Mandatory retired	0.0477 (0.0588)	-0.241*** (0.0541)	0.490*** (0.0678)
Mandatory retired x Agreeableness	-0.116* (0.0614)	-0.0540 (0.0632)	-0.164** (0.0673)
Mandatory retired x Conscientiousness	0.0494 (0.0624)	0.0472 (0.0577)	0.136** (0.0682)
Mandatory retired x Extraversion	-0.0655 (0.0642)	0.0576 (0.0498)	-0.0693 (0.0594)
Mandatory retired x Neuroticism	0.0581 (0.0580)	-0.0178 (0.0549)	0.0749 (0.0610)
Mandatory retired x Openness	0.0778 (0.0558)	-0.126** (0.0580)	0.0547 (0.0573)
Unemployed	-0.349** (0.138)	-0.590*** (0.120)	0.286** (0.132)
Disabled	-0.498** (0.218)	-0.736*** (0.149)	-0.174 (0.176)
Family care giver	-0.132 (0.118)	-0.242 (0.190)	0.399* (0.204)
Constant	-2.761***	-2.128***	-5.482***
Observations	7,238	7,267	7,254
R-squared	0.023	0.035	0.075
Number of individuals	2,025	2,026	2,025

Note:***<1%; **<5%; *<10%. Robust standard errors are in parentheses. The dependent variable is the standardized satisfaction with a mean of 0 and a standard deviation of 1. Age, Age squared/ 100, standardized household income, marital status, education levels, having children in the household, being inpatient, being outpatient, time and demographic areas were additionally controlled for in each of the regressions.

Appendix A

Personality variables in the BHPS

In year 2005 (wave 15) of the BHPS, respondents were asked to rate how they see themselves against a 15-item personality inventory. Answers are coded on a scale of 1 to 7, where 1 means “does not apply” and 7 means “applies perfectly”. The questions are as follows:

“I see myself as someone who . . .”

- | | |
|--|----------------------------|
| a) <i>Is sometimes rude to others</i> | <i>(Agreeableness)</i> |
| b) <i>Does a thorough job</i> | <i>(Conscientiousness)</i> |
| c) <i>Is talkative</i> | <i>(Extraversion)</i> |
| d) <i>Worries a lot</i> | <i>(Neuroticism)</i> |
| e) <i>Is original, comes up with new ideas</i> | <i>(Openness)</i> |
| f) <i>Has a forgiving nature</i> | <i>(Agreeableness)</i> |
| g) <i>Tends to be lazy</i> | <i>(Conscientiousness)</i> |
| h) <i>Is outgoing, sociable</i> | <i>(Extraversion)</i> |
| i) <i>Gets nervous easily</i> | <i>(Neuroticism)</i> |
| j) <i>Values artistic, aesthetic experiences</i> | <i>(Openness)</i> |
| k) <i>Is considerate and kind to almost everyone</i> | <i>(Agreeableness)</i> |
| l) <i>Does things efficiently</i> | <i>(Conscientiousness)</i> |
| m) <i>Is reserved</i> | <i>(Extraversion)</i> |
| n) <i>Is relaxed, handles stress well</i> | <i>(Neuroticism)</i> |
| o) <i>Has an active imagination</i> | <i>(Openness)</i> |

Our paper computes a total score for each personality trait (the reversed scores are used for questions a, g, m and n). The possible value range for each personality trait’s total score is from 3 to 21. Then, the standardized scores are calculated for the whole subsample of respondents.

Appendix B

Life satisfaction questions

...Please tick the number which you feel best describes how dissatisfied or satisfied you are with the following aspects of your current situation.

- 1. Your health*
- 2. Your income of your household*
- 3. Your flat/house*
- 4. Your husband/ wife/ partner*
- 5. Your job (if in employment)*
- 6. Your social life*
- 7. The amount of leisure time you have*
- 8. The way you spend your leisure time*
- 9. Your life overall*

The possible value range for each satisfaction domain is from 1 to 7. Then, the standardized scores are calculated for each domain of interest for our subsample of respondents.

Appendix C

Hypothesis of personality effects on well-being among retirees and our findings

<i>Personality</i>	<i>Hypothesis in Psychology</i>	<i>Our Findings</i>			
		<i>Early retirees</i>	<i>Mandatory retirees</i>	<i>Forced to retire</i>	<i>Unemployed</i>
Agreeableness	(+) or (-)		(-) for life satisfaction (-) for leisure satisfaction		
Conscientiousness	(+)		(+) for leisure satisfaction		(+) for life satisfaction
Extraversion	(+) or (-)	(-) for life satisfaction (-) for income satisfaction		(+) for leisure satisfaction	
Neuroticism	(-)				(+) for income satisfaction
Openness	(+) or (-)		(-) for income satisfaction		