

A study of multidimensional wellbeing inequalities over the life course

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Short abstract (200-400 words)

The relationship between age and subjective and objective wellbeing has been subject to investigation by numerous studies in the fields of economics, psychology, sociology and gerontology. The literature provides a number of theoretical explanations and empirical tests of how wellbeing develops with age. Existing studies differ dramatically in terms of methodology, the data used and the wellbeing measure they analyze, therefore reporting mixed findings. While most studies show a U-shaped form of subjective wellbeing with increasing age, others report instead either an inverted U-shaped, a linear or even a non-existent relationship.

In this paper, we use long term longitudinal data, 18 waves of the Swiss Household Panel (1999-2017), to study the relationship between age and multidimensional subjective and objective wellbeing, both between and within individuals. Fixed-effect models allow us to disentangle age effects from time-invariant individual characteristics that influence the shape of wellbeing over the life course. Using both domain-specific indicators of subjective wellbeing and general life satisfaction allows us to understand whether well-being trajectories diverge across domains. Finally, we investigate the different role of ageing across gender and educational groups. Preliminary results indicate that fixed effect models predict a sensibly different life course trajectory of wellbeing compared to cross-sectional estimates. While the latter in fact shows, as the vast majority of similar studies, a U-shaped development of wellbeing with age, looking within individuals over time, general subjective wellbeing declines with age.

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Long abstract

In the context of rapidly ageing societies, the development of health and wellbeing with age has become more and more relevant (Lopez Ulloa et al. 2013). Although the relationship between age and wellbeing has been subject to investigation by numerous studies in different disciplines, the way in which wellbeing varies with age, and what drives this pattern, remains a subject of theoretical and empirical debate.

A number of theoretical explanations exist on how wellbeing develops with age. Some theories predict wellbeing to remain somehow constant. The famous Easterlin paradox and the aspiration level theory argue that individuals adapt their expectations for the future to their current situation, therefore, despite the changes in the latter, wellbeing is predicted to remain quite stable (Easterlin 1974; Frey and Stutzer 2002). In psychology, the set point theory closely predicts that, based on genetics and personality, there exists a predisposition to a given level of wellbeing for each individual (Lykken and Tellegen 1996; De Neve et al 2010). Gerontology research points to the paradox consisting of the stability of subjective wellbeing at older ages despite the deterioration of objective health conditions (Walker 2005). In this literature the paradox is explained through a variety of mechanisms: socio-emotional selectivity mechanism (with age, individuals' life time horizon shortens so that their focus becomes improving current happiness and investing in close and rewarding social relationships); life course de-regulation (weakening social norms regarding which goals need to be achieved and by when, allowing older adults to select activities and goals that suits their values better and that are therefore more rewarding; adaptation (older people adapt to changing circumstances through selection, optimization and compensation mechanisms) (Berg et al. 2006, Charles and Carstensen 2009; Napolitano and Freund 2019; Baltes and Baltes 1990).

Existing empirical studies testing the outlined theories vary dramatically in terms of the methodology (e.g. cross-sectional, fixed effects, age-period-cohort models), the data used and the wellbeing measure (subjective or objective, cognitive or affective wellbeing) they analyse. Because of these differences, they tend to report mixed results. Most of the studies based on cross-sectional data show a U-shaped form of subjective wellbeing over the life cycle with a minimum between the age of mid-30s and the early 50s (van Landeghem 2012; Blanchflower and Oswald 2008). This could be explained by the fact that young adults have higher expectations that are not met when they get older, the adaptation process of older individuals, and that happier individuals tend to live longer (Lopez Ulloa et al. 2013). A few studies still

find a U-shaped association between age and wellbeing when they use longitudinal data, although in those studies the minimum is usually reached at older ages than in cross-sectional studies (Clark 2007; Clark and Oswald 2006; Van Landeghem 2008, 2012). Others find the U-shaped form in specific domains of well-being only, only in the positive affective component of wellbeing (optimism) and not on the negative affective (stress) component (Stone et al. 2010). Most studies, however, once they control for cohort effects using a fixed effect estimation, cease to find a U-shaped association of wellbeing with age (Frijters and Beaton 2012; Kassenboehmer and Haisken-DeNew 2012; Gwozdz and Sousa-Poza 2010).

Studies in sociology have been more concerned with the social stratification of happiness. Classic social stratification studies have demonstrated that well-being is unequally distributed across social groups. Women are on average (slightly) happier than men, while higher education is associated to greater happiness (Blanchflower and Oswald 2004; Easterlin 2001). Only very recently sociologists have turned their attention to how well-being inequalities unfold over the life course (Yang 2008). Theoretically, the development of wellbeing over the life course across groups is related to group differentials in the exposure to life events that are also strongly correlated with age, such as marriage and childbearing, or the evolution of health status, labour market attachment and income. If gender roles and behaviour shift during the life course, the well-being gap between men and women linked to those events also varies (Yang 2008). The cumulative (dis)advantage theory (DiPrete and Eirich 2006; McDonough et al. 2015) predicts that educational disparities in well-being increase with age because early disadvantages from low education cumulate with age. However, Yang (2008) shows that in the US gender and educational (but not racial) inequalities in happiness decline with age.

These divergent findings require further investigations, particularly on the functional form of the relationship of wellbeing with age, the confounding effect of birth cohorts and time invariant individual characteristics and the domain specific evolution of wellbeing over the life course. Finally, to the best of our knowledge, only one study (Yung 2008) addresses how differently wellbeing develops over the life course for men and women, and across educational groups. The latter represents a fruitful avenue of research to shed light on the theoretical mechanisms explaining the association between age and wellbeing. The present paper aims at addressing all these issues.

We investigate the relationship between age and multidimensional subjective and objective wellbeing indicators. Our study advances our understanding of the evolution of wellbeing over the life course in four ways. First, we show how the association between age

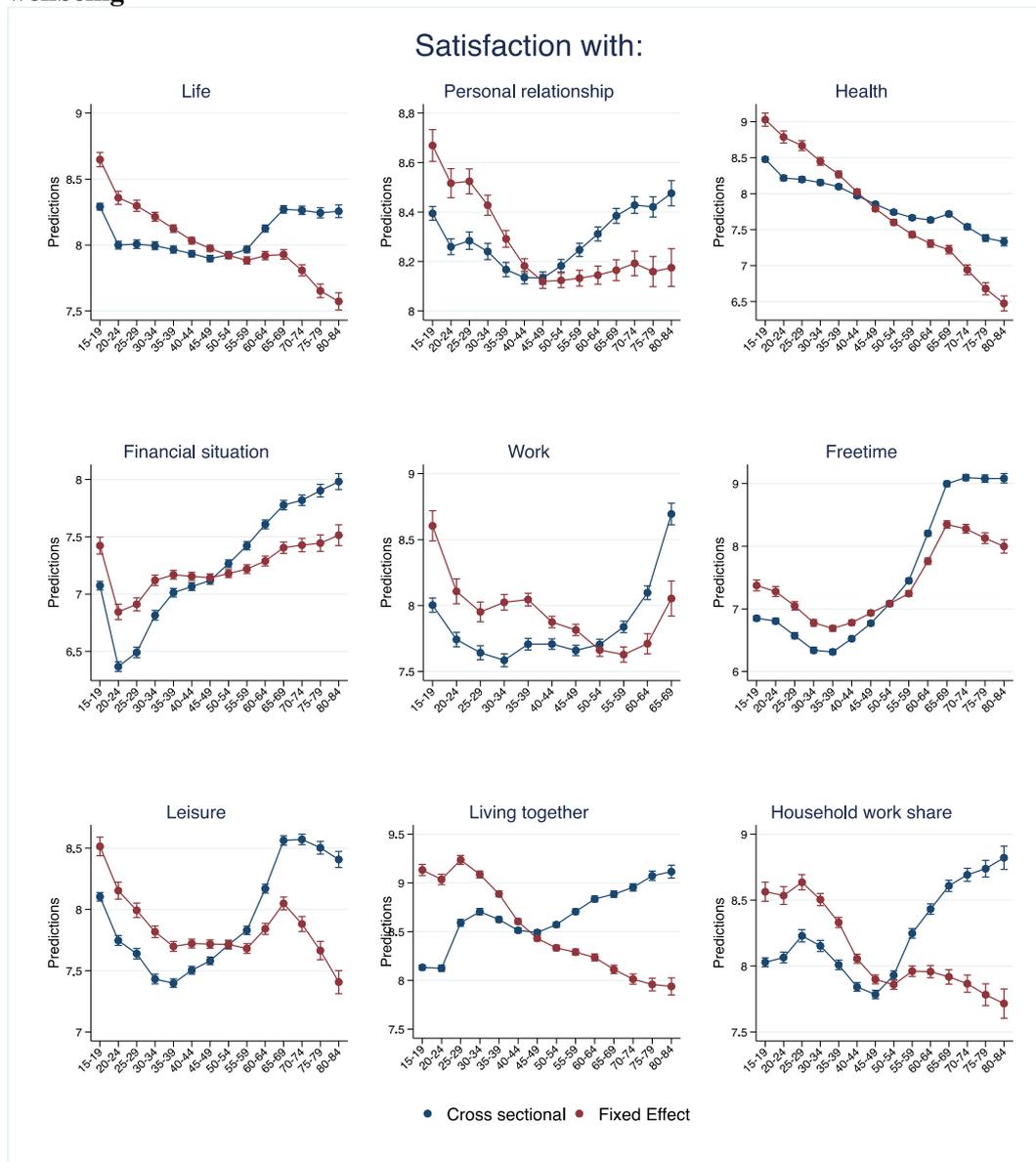
and wellbeing changes depending on the use of cross-sectional estimates or within individual fixed-effect estimates. Our ultimate goal, adopting a life course perspective, is to look at within individual wellbeing development with age. As a second contribution, instead of limiting ourselves to a synthetic indicator of wellbeing, we consider the life course development of a wide range of indicators. We include general and domain-specific wellbeing (subjective, relational and financial) as well as self-perceived physical (health status) and mental health (depression and optimism). Third, contrary to most studies that focus on specific periods, ours explores the entire life course trajectory of wellbeing indicators thanks to the availability of 18 waves of the longitudinal Swiss Household Panel (SHP) (ex: Lachman et al 2015). Finally, we contribute to the sociological literature on social stratification by comparing the wellbeing development over the life course across different groups, which might be differently affected by life course events and the ageing process. We run separate analyses for men and women and for primary or lower secondary, upper secondary or tertiary educated.

Figure 1 shows, for a selected number of subjective wellbeing indicators, the comparison between cross-sectional and longitudinal estimates of the association between age and wellbeing. The graphs plot the predicted satisfaction in a given domain (from 0, not at all satisfied to 10, completely satisfied) depending on age (categorical, 5 years-interval age groups) without any other control. Fixed effect models predict a sensibly different life course trajectory of wellbeing compared to cross-sectional estimates. While the latter shows, as the vast majority of studies, a U-shaped development of life satisfaction with age, net of individual time-invariant characteristics, general subjective wellbeing declines with age, and especially fast after the age of 70. Interestingly, different domain-specific satisfaction indicators display a different development with age depending on whether the estimates are cross-sectional or longitudinal. We observe a reversal of the U-shaped to a negative relationship with age, similar to the one observed for general life satisfaction, for relational wellbeing, for satisfaction with living together and with household work share. Financial wellbeing increases with age while satisfaction with health decreases with age irrespective of the type of estimates. A U-shaped association remains visible when looking at satisfaction with work and free and leisure time. The contrasts of cross-sectional and longitudinal estimates of the association between age and self-perceived physical and mental health (not shown) suggests that in a longitudinal perspective the health status deteriorate much more with age than cross-sectional estimates would suggest.

In a second part of the study (not shown) we focus only on within individual estimates of the age effect, to analyse how gender and educational inequalities in wellbeing and self-

perceived health unfold over the life course. The aim of this second part of the paper is to test, first, whether inequalities in wellbeing and health exists across gender and education, and how large they are in Switzerland. Second, we assess how those inequalities evolve during the life course, namely if they shrink, persist or expand. Finally, we identify the wellbeing and health domains in which those inequalities materialize.

Figure 1: Cross-sectional versus Fixed effects estimates of the effect of age on subjective wellbeing



Source: elaboration of the authors based on Swiss Household Panel (1999-2017).

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