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Sliding down the U-shape? A dynamic panel investigation of the age-well-being relationship, focusing on young adults

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ABSTRACT

Introduction: Much of the work within economics attempting to understand the relationship between age and well-being has focused on the U-shape, whether it exists and, more recently, potential reasons for its existence. This paper focuses on one part of the lifecycle rather than the whole: young people. This focus offers a better understanding of the age-well-being relationship for young people, and helps with increasing general understanding regarding the U-shape itself.
Method: The empirical estimations employ both static and dynamic panel estimations, with the latter preferred for several reasons.
Results and conclusion: The empirical results are in line with the U-shape, and the results from the dynamic analysis indicate that this result is a lifecycle effect.

> "Despite all the recent research regarding happiness and subjective well-being a fundamental research question remains poorly understood. What is the relationship between well-being and age?"
>
> Blanchflower and Oswald (2008 p.1733)

1. Introduction

A near uniform finding, with some important exceptions, from 'economics of happiness' research is that life satisfaction appears to follow a U-shape over the lifecycle, starting relatively high at the outset of adulthood, falling to a nadir in (approximately) the mid-forties, before rising again. This U-shape has been found using many different datasets covering (in total) millions of individuals from around 100 countries (Clark and Oswald, 1994; Frey and Stutzer, 2002; Blanchflower and Oswald, 2008; Booth and van Ours, 2008; Stone et al., 2010; Cheng et al., 2014) though there is (increasingly) contrasting evidence put forward too (Frijters and Beatton, 2012; Kassenboehmer and Haisken-DeNew, 2012; Sutin et al., 2013). This U-shape result is mainly, though not wholly, an underlying (or 'ceteris paribus') finding, found after many confounding factors are controlled for. Thus the U-shape remains after having accounted for income, job status, marital status and many of the other controls commonly employed in this literature. Much of the economic analysis in attempting to investigate and understand the age and happiness relationship has focused on this U-shape. Recent debates within the economic literature include whether the U-shape exists or is a result of model specification (Blanchflower and Oswald 2009; Glenn 2009; De Ree and Alessie (2011); Frijters and Beatton 2012), whether it reflects cohort or lifecycle effects (Clark, 2007; Sutin et al., 2013), and more recently about what its potential causes might be (Stone et al., 2010; Schwandt, 2014). The empirical work below investigates the first two issues, and the literature review and discussion makes suggestions about the third. The combination of the dynamic panel method used, unique in this area of investigation, and the narrower focus can provide new evidence in line (or not in line) with the U-shape; evidence that is not a result of the typical model specification which employs age as a quadratic term, and is derived from a much narrower age range than is typically investigated.

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An alternative, yet complementary, way of investigating the happiness and age relationship is by having a focus on a narrower part of the lifecycle. Such a focus can potentially provide insights into the whole lifecycle, including the U-shape itself, as well as leading to a more thorough understanding of age and happiness for the age range under investigation. As well as these potential insights, there are also sound methodological reasons to consider small age ranges. Thus this study investigates the age-happiness relationship by looking at a particular part of the lifecycle: the young (defined as individuals aged between 16 and 30). It is likely that, for different age groups, there are systematic differences regarding well-being and happiness, differences that may be missed by whole lifecycle investigations. There is evidence that happiness means different things to different age ranges (Kamvar et al., 2009; Mogliner et al., 2011), while life for young people, in contrast to older people, has been argued to consist of "years of profound change and importance" (Arnett, 2000). Such potentially important differences may be missed by whole lifecycle studies.

The paper is organised as follows. Section 2 discusses in more detail the age-happiness relationship, arguing that it is valuable to investigate the well-being of different age groups separately. As such, it presents general reasons for a focus on a part of the lifecycle, and in a separate subsection, introduces specific reasons for the focus on young people. Section 3 discusses and describes the data, the sample and the measures employed in the analysis. Here, a subsection analyses the data using standard fixed effects estimations, which helps to highlight some of the advantages of investigating the U-shape using Generalised Method of Moment (GMM) techniques. Section 4 contains dynamic panel analyses making use of GMM techniques, and discusses the results (in part) in terms of existence of the U-shape. The combination of the narrower focus along with the advantages that GMM estimation provides new evidence about its existence, as well as contributing to the ongoing discussion of whether the effect is a cohort one or a lifecycle one. Finally, section 5 offers some concluding remarks.

2. Age and well-being discussion: reasons for a focus on specific parts of the lifecycle

A central argument of this paper is that investigations into different age ranges or parts of the lifecycle can lead to new insights regarding the age-happiness relationship. Within economics, little attention has been given to narrower parts of the lifecycle (e.g. young people, and older people) whereas studies from psychology have inspected the well-being of different age ranges separately. An acknowledged potential problem with the whole lifecycle multivariate regressions that find a U-shape (by controlling for many other factors) is that the controls assume the same definitions and standards for everyone, aged twenty, fifty, or eighty. Good health, for example, is assumed to have the same meaning for everyone regardless of age; yet an 80 year old may have a different conception of good health than a twenty year old. The multivariate regressions will not pick this up, and this is the specific reason Blanchflower and Oswald (2008) do not include physical health as a control. Clark (2007, p.11) explains similarly: "in the context of well-being and age … it is contentious to include health as a right hand side variable, although this practice is widespread in the literature. Including health does imply that we are comparing individuals of different (working) ages, but with the same level of health." If differences in health matter for well-being, and a stylised result of the happiness literature is that health matters greatly, how should we account for it in an investigation of the underlying relationship between age and well-being? One solution would be to look at narrower age ranges where health can be considered more homogenous than over the whole lifecycle. Young people, the focus of this study, are obviously more homogenous than the whole adult life span, and the health conditionality placed on the age and well-being relationship is therefore perhaps less contentious.

Recent work within economics has started to explore this notion that, for different age groups, happiness might mean, and be derived from, different things. Consistent with the argument that different age groups may have different well-being concerns, using the German Socioeconomic Panel FitzRoy et al. (2013) find that, in West Germany, life satisfaction for people under 45 is positively related to the income of a reference group (a signalling effect), but for people over 45 the life satisfaction effect of reference group income is negative (a comparison effect). This signal effect has also been found for young people by Godechot and Senik (2013), who also find a gender difference. In their study the signal effect is more prevalent for females than males, which underscores the point about the potential value in considering narrower groups than everyone combined over the lifecycle.

Another reason to consider narrower age ranges comes from the meaning of the dependent variable (i.e. happiness or life satisfaction) itself. Perhaps there is a systematic way that happiness differs between ages, meaning that it is useful to study isolated parts of the lifecycle? There is some evidence that this is so. For example, Kamvar et al. (2009), in an analysis of twelve million blogs, find that younger people (the paper is not precise about what this means) refer to happiness as excitement whereas older people refer to it as feeling peaceful. In the blogs being happy was associated with high arousal words for young people, whereas the association was with low arousal words for older people (again, there is no clear definition of older people). They offer support for this finding in subsequent experiments which demonstrate the same thing (or similar) in different ways, finding a statistically significant difference between the two age groups. They argue that this change in how happiness is viewed is driven by an increasing sense of connectedness (to others and the present moment). This difference in what happiness (and therefore self-reported happiness) means to different age groups is potentially very important.

An update of the analysis in Kamvar et al. (2009) demonstrates the relative importance of excitement and peacefulness with respect to what individuals regard as happiness in different age ranges (Mogliner et al., 2011). For the twenties age range the ratio of excited happiness to peaceful happiness is about 1.5 to 1, and, as seen on the Table below, the change throughout the lifecycle is striking. Note well that the first line of the Table and Figures are as presented in the original study, whereas the second line is a slight rebasing of the figures making excited happiness equal to 1 in each case for easier comparison (Table 1).

Thus individuals are almost twice as likely to describe happiness as excitement than peacefulness when teenagers, and approximately fifty percent more likely in their twenties. At the other end of the scale, individuals are eight times more likely to relate happiness to peacefulness than excitement, a figure that falls to 3 and a half for individuals in the forties age range. This raises the possibility that what is being examined, i.e. the dependent variable, is different at different ages. The Carstensen et al. theory (1999), from psychology, that we desire more emotionally satisfying experiences than new experiences as we age is a similar argument. What happiness means to individuals is different at different ages; what causes or contributes to happiness is also different at different ages. A focus on a more narrow part of the lifecycle rather than the whole age range (as is commonly undertaken) may yield insights of relevance to individuals at different times of life, which may be missed when assessing all ages.

Furthermore, this change in the meaning of happiness itself across the lifecycle might inform the U-shape finding somewhat. The upturn in happiness corresponds with an increase in perceiving