Minimising Misery: A New Strategy for Public Policies Instead of Maximising Happiness?

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Abstract This paper raises the issue whether public policy should focus on minimizing unhappiness rather than maximizing happiness. Using a cross-sectional multi-country dataset with 57 thousand observations from 29 European countries, we show that unhappiness varies a great deal more across social groups than (high levels of) happiness does. Our findings are robust to several alternative specifications, using both self-reported life satisfaction and self-reported happiness, and different cut-off points for defining unhappiness (dissatisfaction) and high levels of happiness (satisfaction). While misery appears to strongly relate to broad social issues (such as unemployment, poverty, social isolation), bliss might be more of a private matter, with individual strategies and attitudes, hidden from the eye of a policy-maker. The social cost of unhappiness may be also reflected in the immense cost of mental health problems. Preventing avoidable unhappiness, however, needs to be complemented with other strategies for promoting happiness, perhaps on a more decentralized level, given the different causes of bliss and that of misery.

Keywords Happiness, Unhappiness, Life satisfaction, Public policy, Bipolar scales

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This paper argues that public policies should focus on reducing unhappiness, rather than promoting happiness. We show that unhappiness varies a great deal more across social groups than happiness does. While unhappiness appears to strongly relate to broad social issues (such as unemployment, poverty, social isolation), happiness might be more of a private matter, with individual strategies and attitudes, hidden from the eye of a policy-maker. Social policies thus may be more efficient if they target unhappiness. These efforts on a social level could be complemented with individual or community based strategies for promoting happiness.

Subjective well-being variables, such as self-reported life satisfaction or happiness, are often treated as continuous variables or ordinal ones, assuming that there is a single latent variable behind them. In other words, the assumption is that the same personal characteristics explain unhappiness and happiness as well. We present evidence that this does not hold, and even single survey questions exploring self-reported happiness and life satisfaction show distinct qualities at the bottom and top end of the scale.

We explore whether there is a difference between the characteristics of people in "misery" and those in "bliss". It is well-established in the existing literature that there is a systematic relationship between income and life satisfaction: higher income groups tend to be more satisfied. Can we also say, that the lack of income hurts (increases the likelihood of unhappiness) about the same extent and the possession of income pleases (increases the chance of being happy)?

1 Happiness and Unhappiness

Unhappiness and happiness constitute different qualities of experience. Diener and Iran-Nejad (1986) consider feelings of pleasure and displeasure as two distinct types of feelings that can be experienced at the same time, if one of these is of low intensity. Positive and negative affect were found to be independent over a longer time periods (Ed Diener and Emmons 1985). The strongest negative correlation between the two affects occurred during emotional times. Neurophysiology confirms this, with evidence on cerebral asymmetry.

Positive and negative emotions are associated with different lateral activity in the anterior cortex, with greater left- or right-hemispheric activation, respectively (Davidson 1992). Positivity and negativity may be distinguishable with respect to the neurotransmitters associated with each (Hoebel et al. 1999). The dopamine released from neurons in the forebrain helps reinforce successful behavior, so it enhances learning and repetition. In contrast, acetylcholine has a counteracting role in the same brain region, and it inhibits behavior. Thus, different neural systems provide positive feedback and negative feedback respectively, influencing the go (approach) or stop (withdrawal) decision.

Kahneman showed that emotional pain is concentrated among a minority of the population. He used the so-called U-index, which measures the amount of time an individual spends in an unpleasant state, and is constructed based on the Day Reconstruction Method.

> "A striking observation was the extent of inequality in the distribution of emotional pain. About half our participants reported going through an entire day without experiencing an unpleasant episode. On the other hand, a significant minority of the population experienced considerable emotional distress for much of the day. It appears that a small fraction of the population does most of the suffering – whether because of physical or mental illness, an unhappy temperament, or the misfortunes and personal tragedies in their life." (Kahneman 2011, p. 394)
>
> "The objective of policy should be to reduce human suffering. We aim for a lower U-index in society. Dealing with depression and extreme poverty should be a priority." (ibid. p. 397)

Arguing for the focus on unhappiness appears to be riding against the tide. Is it not a step back, given the recent limelight of happiness as a measure of human and progress?

On an individual level, the upsurge of positive psychology argues for the need of focusing on a flourishing human life, on a life which makes people healthy and happy, rather than just repairing damage. The "flow" experience is accessible to all. Csikszentmihályi's concept highlights the importance of individual choice over and above external circumstances (1975). Many others offer a series of individual actions, which were scientifically proven to improve the quality of life even on a short term basis (e.g. Lyubomirsky 2008). The developmental path of positive psychology is well reflected in the scientific career of Martin Seligman, one of its "forefathers", who has started his career with describing *learned helplessness* and depression (1975), and later continued with developing strategies for *learned optimism* (1991), and ultimately *authentic happiness* (2002).

Although current psychology still regards healing of traumas and mental disorders essential, there is an ever greater focus on individuals' abilities and strengths and on strategies which help people to overcome a traumatic life event or simply to cope with the negative consequences of everyday stress. These are essential individual strategies, which need to be provided on a personal basis, tailor-made to the individual's life story and social support system.

On a macro level, the "happiness revolution" urges a change of paradigm, and as such, it is about the need for using well-being indicators as such. These indicators, reflecting people's own assessments of their lives, are expected to replace or complement traditional measures of social progress like Gross Domestic Product (GDP), incomes or resources, as argued by the The Organization for Economic Co-operation and Development (OECD), the United Nations (UN), the World Bank, the European Commission and the Eurostat. In July 2011 the United Nations accepted a resolution titled "Happiness: towards a holistic approach to development", and "invited Member States to pursue public policy steps that would better capture the importance of pursuing happiness and well-being in development."[1] In 2012, the UN declared 20 March as the International Day of Happiness[2]. This view is ever more prevalent in national politics as well, including France ("Stiglitz Commission", including two Nobel laureates), the UK and Bhutan, with its use of gross national happiness as an indicator of national progress. Thus, there is now a growing consensus on the need for using alternative indicators of social progress, and this paper contributes to the discussion on what indicators are the most suitable for this.

"Happiness" measures can be "affective", measuring good and bad feelings (pleasures and pains) at a given moment, or "cognitive", with overall assessments of quality of life as a whole, or "eudemonic", exploring the purpose in life (Delle Fave et al. 2012). Large scale surveys typically assess the cognitive component of subjective well-being, asking people on their life satisfaction or happiness. Self-reported life satisfaction and happiness aim to explore subjective quality of life as a whole. They are partly based on information (what one thinks) but also on the current feelings of the respondents. In other words, the overall indicators of well-being are affected by mood states. Individuals in a happy mood are more likely to recall positive life events, while those in a sad mood are more likely to recall negative ones, which in turn influence the overall assessment of their lives (Schwarz and Strack 1999).

"Cognitive" measures, such as life satisfaction are frequently used by economists as proxies for utility, which thus enables a systematic test of theoretical models, such as "how bad unemployment is" or also the exploration of policy issues such as the effects of climate

[1] Resolution A/RES/65/309. http://www.un.org/ga/search/view_doc.asp?symbol=A/RES/65/309. Access date: 22 March 2013.

[2] UN Resolution 66/281 adopted by the General Assembly. http://www.un.org/ga/search/view_doc.asp?symbol=A/RES/66/281. Access date: 22 March 2013.

on welfare and well-being, defining compensations for aircraft noise nuisance (Van Praag and Ferrer-i-Carbonell, 2004). What is the policy implication of the use of these measures?

Happiness seems to strengthen the value of an institutional approach: the evidence suggests that direct democratic procedures and decentralization increase well-being (Frey and Stutzer 2000). This, however, does not imply that happiness should be maximized, as argued by Frey and Stutzer. Partly because individual preferences cannot be aggregated (Arrow's impossibility theorem), and partly because the government is not 'benevolent' per se and it lacks the incentives to design optimal policies which maximize social well-being. Thus, the main use of well-being measures is that they imply alternative ways of designing and delivering public services.

Maximizing happiness on an individual level may be a flawed strategy, too, especially when focusing on the hedonic aspect of happiness. Pursuing hedonistic happiness may be problematic on various grounds. Individuals seem to make systematic errors in predicting future feelings, and intuitive theories about the determinants of happiness may be flawed, moreover often resistant to change (Loewenstein and Adler 1995; Loewenstein et al. 2003; Loewenstein and Schkade 1999). A more useful individual strategy appears to be to follow a "eudaimonic" approach, a life with a meaning and purpose. It often entails altruism or actions for the benefit of others, too. Engaging in such activities may bring an experience of flow and ultimately a life which is worth living, even rewarded with feelings of contentment and joy (Csíkszentmihályi 1996). Happy life seems to qualitatively differ from the pursuit of happy moments.

An efficient way to promote happiness socially may be to tackle mental health problems, as mental health is a key determinant of (un)happiness. Based on evidence from the British Cohort Study, Layard found that the most powerful explanatory variable of life satisfaction among men aged 34 is the mental malaise of the individual 8 years earlier (Layard 2012).

Mental ill-health is widely prevalent and has high social costs. OECD data suggests that around 20% of the working-age population in the average OECD country is suffering from a mental disorder in a clinical sense (2011). If we take a lifetime perspective, about 50% of people are affected. The costs of mental ill-health are very large. A conservative estimate from the International Labour Organization puts them at 3-4% of GDP in the European Union (EU). Layard estimated the overall cost due to non-employment, absenteeism from work and loss of productivity to be close to 7.5% of GDP in the United Kingdom (UK). The health care costs equal an additional 2.3%.

Perhaps contrary to popular beliefs, severe mental disorders are relatively rare. About three quarters of individuals affected by mental disorders have mild or moderate syndroms, "common mental disorders" (CMD) (OECD, 2011). Many mental disorders are persistent and show high rates of recurrence. A typical characteristic is the early onset, with a median age at onset across all types of mental disorders around 14 years of age. Anxiety disorders start particularly early in life.

Mental illnesses in very many cases are curable, perhaps even more than physical illnesses. In most advanced countries, only a quarter of people with mental illness are in treatment, compared with over three quarters for most physical conditions. Despite the efforts of many countries[3], patients still tend to be undertreated, due to the attached stigma or lack of access to medical services. This is a cause of much unnecessary misery. All this makes a clear case for effective medical intervention, and on a societal level, setting mental health issues high on the policy agenda. Richard Layard argues that mental health needs to be the "new frontier for the welfare state" (Layard 2012).

[3] In most countries increasing attention is given to awareness campaigns and initiatives. This includes e.g. initiatives at various levels including governments to tackle stigma at the workplace (OECD 2011, p. 71).

Personal and environmental factors greatly influence how mental illnesses or physical impairment affects quality of life. The subjective perception of the situation plays a key role here. Delle Fave and Massimini (2005) argue that the challenge of these situations is to discover opportunities and found that people with disabilities can successfully achieve developmental goals, social integration and experience a good quality of life despite severe biological constraints. They highlighted the role of optimal experience, a state characterized by concentration, focused attention, involvement, positive mood, clear goals and intrinsic motivation. They argue that activities associated with optimal experience are usually available in the daily environment, but could be also fostered by specific intervention programs addressed to disabled people.

In this study, we explore whether there is a difference between the characteristics of people in "misery" and those in "bliss". Our starting hypothesis is that the circumstances and characteristics which make people *dissatisfied or unhappy* differ from those which make them *very satisfied or very happy*.

We aim to test whether high income both "avoids" misery and buys happiness. More specifically, we test whether high income groups are less likely to report low well-being and more likely to report high well-being compared to the middle-income group. We also test whether high income explains the probability of low satisfaction or the probability of high satisfaction *to a greater extent.*

Based on the literature, we may assume that disability reduces life satisfaction at large, but for some individuals, who find an "optimal challenge" it may provide fulfillment with similar daily pleasures, or perhaps even a life with more meaning (Delle Fave and Massimini 2005). Our hypothesis is that health impairment is associated with a greater prevalence of dissatisfaction, but for a small minority, it may increase the probability of happiness (but not necessarily that of high life satisfaction). We expect that the relationship between disability and life satisfaction differs from that of disability and happiness, the latter relationship being weaker.

Our hypothesis is that "misery" is more correlated with observable personal characteristics, and those which can be influenced by public policies. In contrast, we expect "bliss" to be more related to personal choice and unobservable personal characteristics.

2 Methodology and Data

The analysis is based on the European Social Survey Data (ESS)[4], a cross-sectional multi-country dataset. The original sample includes 29 countries and 57000 individuals, which falls to 45000 after excluding those with missing values in our key variables of interest. The sample size varies between 1215 (Cyprus) and 2725 (Germany), and covers the adult population aged 15 or over. The field work was conducted in 2008 or 2009.

There are two variables measuring subjective well-being in the ESS: life satisfaction and happiness. Life satisfaction is our key variable, which is sometimes considered to pick up less ephemeral feelings than happiness. This is measured by the following question:

"All things considered, how satisfied are you with your life as a whole nowadays"?

This question is answered on a scale of 0 to 10, where 0 means extremely dissatisfied and 10 means extremely satisfied. What people mean when they think about these extremes is left up to them. Originally, Cantril (1965) explicitly asked the individuals to reveal what the 'best' and the 'worst' meant, and only then requested the assessment of their current situation by

[4] The ESS4-2008 Edition 4.0 was released on 2 February 2011. Norwegian Social Science Data Services, Norway - Data Archive and distributor of ESS data.

actually pointing to the specific point on the 'ladder'. The validity and reliability studies on life satisfaction indicate that the self-report scales correlate with each other and with other types of measures of well-being that do not depend on reports by the respondents (Ed Diener et al. 2013; Lepper 1998).

Self-reported happiness is used as a complementary measure, for checking the robustness of the findings.

The overall distribution of life satisfaction and happiness is shown in Figure 1 and in Table 4 in the Annex. There is a high correlation between the two variables (R=0.71).

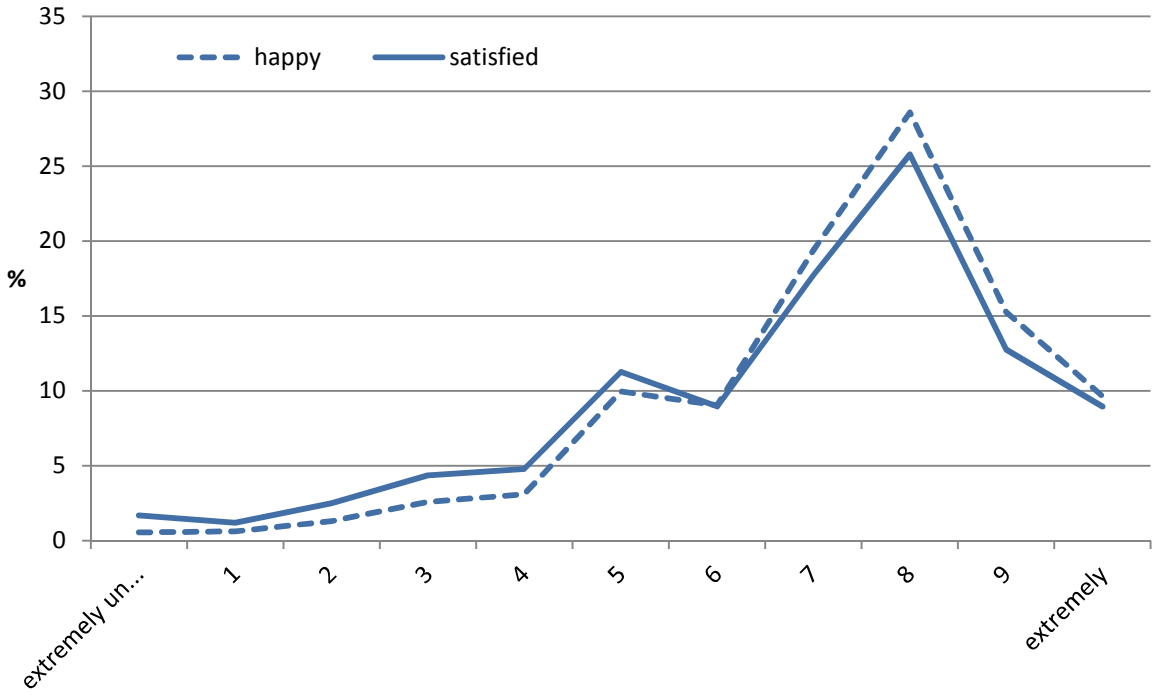

Fig. 1 Distribution of self-reported happiness and life satisfaction scores, 2008. *Source:* Own calculations, based on the European Social Survey, ESS4-2008 Edition 4.0

There is, as is usual, evidence of positive skew in the distribution of life satisfaction: most people are found towards the "satisfied" end of the spectrum. The modal life satisfaction response is eight, while the mean and the median are both around seven. A non-negligible number of respondents report life satisfaction at the top and bottom ends of the scale.

Average self-reported happiness is somewhat higher than life satisfaction. The two variables have a somewhat different distribution across the population. People are more likely to claim that they are dissatisfied than that they are unhappy, and a higher share of the population regard themselves happy compared to satisfied (see Figure 1).

In terms of terminology, subjective well-being is a general term, with several dozen specific indicators, including self-reported life satisfaction and self-reported happiness. In this article, subjective well-being is at times used interchangeably with these two more specific measures.

We defined two groups, those with low levels of well-being and those with high levels. We identified the bottom tenth and top tenth in the total sample, those who are the least satisfied and those who are the most satisfied. Due to the skewness of the distribution (more people reporting high scores) there is an asymmetry in the coding: those who rated their satisfaction with a score between 0 and 3 were coded as *"very dissatisfied",* while those with a score of 10 were coded as *"very satisfied"*. As an alternative measure, we also used self-rated

happiness, where the coding of the *"very unhappy"* and *"very happy"* variables was the same as described above.

Our alternative definition refers to a 25% cut-off, referring to the bottom fourth and the top fourth in terms of life satisfaction. Here, those with scores from 0 to 5 were coded as *"dissatisfied or the least satisfied 25%"* and those with scores of 9 and 10 were coded as *"satisfied of the most satisfied 25%"*. The same procedure was implemented for happiness, with the same coding.

3 Results

There are clear and recurring patterns, indicating a systematic relationship between subjective well-being and personal characteristics. People affected by disability, unemployment, social isolation, low income or (self-proclaimed) ethnic minority status seem are more likely to be dissatisfied or unhappy (Figures 2 and 3).

The social patterns of dissatisfaction suggest that those groups which are typically identified as socially excluded tend to suffer the most: the disabled, the unemployed, the poor, ethnic minorities and those who are socially isolated, tend to have a much greater chance to be dissatisfied (see Figure 2). The prevalence of dissatisfaction is 6-18% points higher among them. To the contrary, those with high incomes (top fifth) and high level of education, and also those who are still studying have a much lower chance of dissatisfaction (4-5% points less).

High income and high education do not seem to offer a highway to heaven, but may protect from misery. The top income quintile and people with tertiary education are not more likely to be very satisfied than the average, they tend to have a lower probability of being dissatisfied. Evidence on low incomes seems to offer the other side of the coin: bottom income quintile group is less likely to be very satisfied and more likely to be very dissatisfied. The finding on low education is mixed: it seems that they are both more likely to be very dissatisfied and very satisfied. Lack of schooling might be a curse for some, but rather a bliss for others. The latter group may have accepted this situation, may not aspire for more, and probably does not see it as a barrier in their life.

The social patterns of dissatisfaction seem to be more pronounced than those of satisfaction. The results seem to imply that there are some groups which are prone to have low well-being, while, on the other hand, there is little destiny in which groups enjoy high well-being. Dissatisfaction varies a great deal across social groups, and some patterns can be clearly identified. In contrast, there is a much smaller variation with respect to high levels of satisfaction: the basic socio-economic and demographic characteristics of individuals do not seem to reveal much of the features of the most content people.

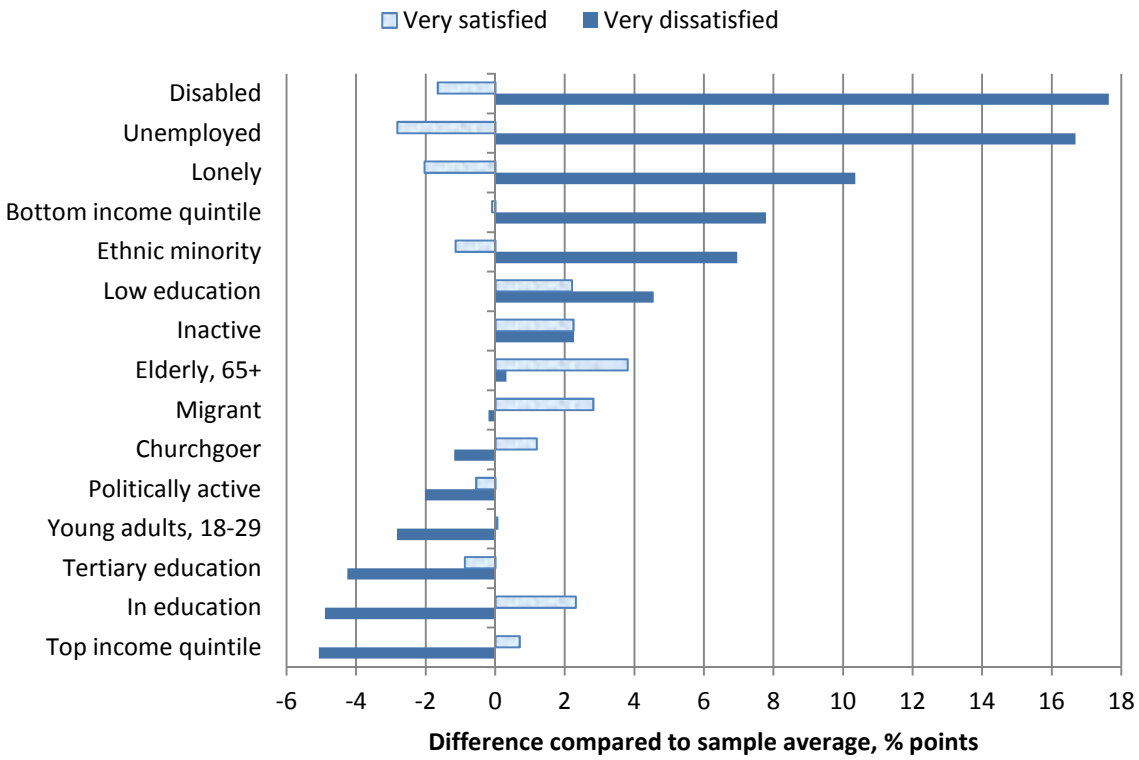

Fig. 2 Share of very satisfied and very dissatisfied individuals with specific characteristics: difference compared to the sample average, % points. *Source:* Own calculations, based on the European Social Survey, ESS4-2008 Edition 4.0 *Notes:* Very dissatisfied: self-rated life satisfaction with scores 0-3. Very satisfied: score of 10. Definition of social groups: see Table 6 in the Annex.

The same general tendency holds for self-reported happiness (Figure 3). The same marginalized groups are most likely to be "very unhappy" as observed in case of life satisfaction: the disabled, the unemployed and the socially isolated. In these groups, about one in five people is 'very *un*happy', and as shown on Figure 3, they are 11-14% points more likely to be very unhappy than the population on average. In contrast, the share of "very happy" people (indicated by lighter bars) varies much less across social groups. Among those who are socially isolated, the share of the "very happy" is 3% points lower, and among those with low education, it is 4% points higher relative to the population average. Low income increases the chance of unhappiness, but high income does not seem to induce high happiness.

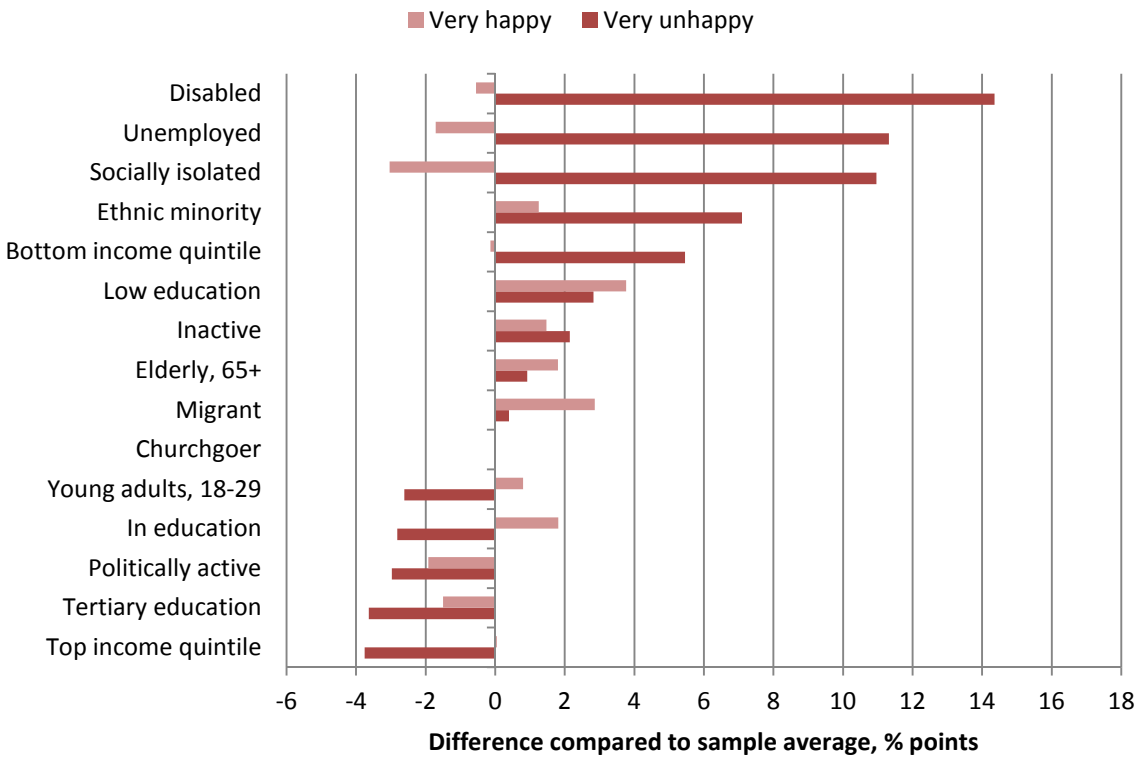

Fig. 3 Share of very happy and very unhappy individuals with specific characteristics: difference compared to the sample average, % points. *Source*: Own calculations, based on the European Social Survey, ESS4-2008 Edition 4.0 *Notes:* Very unhappy: self-rated life happiness with scores 0-3. Very happy: score of 10 Definition of social groups: see Table 6 in the Annex.

In order to test the relationship between specific personal characteristics and well-being, we run a logit model, exploring and comparing the probabilities of dissatisfaction and that of high satisfaction. The dependent variable is a respondent's life satisfaction, coded as a dummy. In model 1, it indicates whether an individual has a very low score of self-reported life satisfaction or not, and in model 2 it indicates whether an individual reported a very high life satisfaction or not (Table 1). The independent variables are personal characteristics, including income quintile group, labour market status, self-reported health, education level, loneliness, churchgoing, age, gender, ethnicity and marital status.

Comparing models 1 and 2 highlights the difference between the correlates of "misery" and that of "bliss". We tested the difference between the absolute size of the estimated coefficients in models 1 and 2.

Income level appears to be strongly correlated with "misery" (low satisfaction), but less so with "bliss" (high level of satisfaction). The bottom two quintile groups are more likely to be among the most dissatisfied tenth, while the top two quintile groups are less likely to be so (compared to the third quintile): the estimated coefficients are significant at 1% level.

The relationship between income level and high satisfaction is weaker. Individuals who belong to the fourth or the top income quintile have a higher chance to report high satisfaction. The coefficient of the richest fifth, however, is smaller in model 2 than in model 1. This suggests that high income may help to avoid low psychological well-being, but it may be less of a guarantee to achieve high well-being.

This asymmetry between the correlates of low satisfaction and high satisfaction prevails over a number of other personal characteristics.

Students who are currently in education have a lower chance of being dissatisfied. In contrast, unemployment increases the probability of dissatisfaction. Neither of these coefficients are statistically significant in model 2, thus these characteristics are not strongly

related to the probability of high satisfaction. Inactive status appears to be different: inactive persons have a higher chance to be very satisfied. Interestingly, the coefficient is not significant in model 1. This labour market status includes pensioners, those on maternity leave and other inactive people, except students. Their situation is thus rather distinct from the unemployed, as most of the inactive people have social incomes, and their situation is more likely to be an outcome of personal choice.

Separation, divorce, widowhood tend to be associated with a higher chance of severe dissatisfaction. Similarly, those who are never married are more likely to feel very dissatisfied than those who are married (our reference category). Widows and those who are never married are less likely to be very satisfied. On the other hand, the coefficients for separated and divorced are much smaller (in absolute value) in our model 2 than in model 1, and the difference is statistically significant. This indicates that marital break-up tends to go with distress, but it may less likely to reduce the probability of being satisfied. Note that these variables do not measure the length of time since the marital break-up. Empirical evidence using panel data suggests that after the initial drop of well-being, people's life satisfaction tends to return to the baseline level in a few years' time (A.E. Clark et al. 2008)

Health problems tend to be associated with a higher probability of dissatisfaction and a lower probability of high satisfaction. There is some asymmetry in the strength of the relationship, especially in case of the variable "health hampers a lot": the coefficient in model 1 is larger (in absolute value) than in model 2.

Men are less likely to be among the most satisfied tenth: the coefficient is significant at 1% level.

Individuals who say that they have an ethnic minority background are more likely to experience low life satisfaction.

Table 1 Personal characteristics and the chance to be very dissatisfied or very satisfied, logit regression

Dependent variables: self-reported life satisfaction, different dummies	(1) „misery“	(2) „bliss“
	Very dissatisfied	Very satisfied
Lowest Income Quintile	0.581***	0.076
	(0.060)	(0.066)
Second Income Quintile	0.180***	0.077
	(0.061)	(0.064)
Fourth Income Quintile	-0.165***	0.145**
	(0.064)	(0.064)
Highest Income Quintile	-0.595***	0.309***
	(0.072)	(0.065)
In education	-0.444***	0.112
	(0.132)	(0.101)
Unemployed	0.784***	-0.057
	(0.072)	(0.115)
Inactive	0.0223	0.285***
	(0.057)	(0.058)
Lonely	0.612***	-0.336***
	(0.052)	(0.076)
Churchgoer	-0.174***	0.082
	(0.049)	(0.050)
Health Hampers a Lot	1.427***	-0.840***
	(0.067)	(0.102)
Health Hampers a Little	0.596***	-0.458***
	(0.049)	(0.055)
Male	0.0587	-0.120***
	(0.041)	(0.041)
Ethnic minority	0.210***	-0.103
	(0.072)	(0.100)
Separated	0.727***	-0.198
	(0.137)	(0.168)
Divorced	0.642***	-0.248***
	(0.065)	(0.078)
Widowed	0.464***	-0.424***
	(0.067)	(0.079)
Never Married	0.378***	-0.443***
	(0.065)	(0.067)
Other personal controls	Yes	Yes
Country controls	Yes	Yes
Constant	-4.050***	-0.498**
	(0.231)	(0.224)
Observations	33,951	33,951
Log likelihood	-9156	-9391

Source: Own calculations, based on the European Social Survey, ESS4-2008 Edition 4.0
Notes: Very dissatisfied: self-rated life satisfaction with scores 0-3 Very satisfied: score of 10.
Other personal controls: education level, age, children at home
Standard errors in parentheses,
*** p<0.01, ** p<0.05, * p<0.1

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3.1 Alternative measures for robustness test

We tested our results using three alternative specifications, using self-reported happiness and keeping the same cut-off point, and using a more generous cut-off point for both life satisfaction and happiness measures.

Table 2 Personal characteristics and the chance to be very unhappy or very happy, logit regression

Dependent variables: self-reported happiness, different dummies	(3) „misery“ Very unhappy	(4) „bliss“ Very happy
Lowest Income Quintile	0.433***	0.072
	(0.063)	(0.065)
Second Income Quintile	0.088	0.091
	(0.064)	(0.063)
Fourth Income Quintile	-0.161**	0.154**
	(0.066)	(0.063)
Highest Income Quintile	-0.582***	0.315***
	(0.075)	(0.064)
In education	-0.021	-0.028
	(0.128)	(0.098)
Unemployed	0.712***	-0.147
	(0.078)	(0.108)
Inactive	0.021	0.233***
	(0.060)	(0.057)
Lonely	0.876***	-0.310***
	(0.052)	(0.076)
Churchgoer	-0.158***	0.107**
	(0.051)	(0.049)
Health Hampers a Lot	1.409***	-0.548***
	(0.068)	(0.096)
Health Hampers a Little	0.751***	-0.348***
	(0.051)	(0.055)
Male	0.071	-0.161***
	(0.043)	(0.040)
Separated	0.888***	-0.393**
	(0.143)	(0.170)
Divorced	0.835***	-0.448***
	(0.067)	(0.081)
Widowed	0.743***	-0.694***
	(0.067)	(0.084)
Never Married	0.552***	-0.569***
	(0.069)	(0.066)
Ethnic minority	0.249***	0.102
	(0.075)	(0.089)
Other personal controls	Yes	Yes
Country controls	Yes	Yes
Constant	-4.606***	0.127
	(0.245)	(0.218)
Observations	33,843	33,843
Log likelihood	-8546	-9750

Source: Own calculations, based on the European Social Survey, ESS4-2008 Edition 4.0
Notes: Very unhappy: self-rated life satisfaction with scores 0-3. Very happy:. score of 10
Other personal controls: education level, age, children at home
Standard errors in parentheses,
*** p<0.01, ** p<0.05, * p<0. 1

The model using self-reported happiness as a dependent variable with the same cut-off point shows similar effects (Table 2). There are a number of personal characteristics which explain high levels of happiness less than unhappiness, including income (bottom and top income quintile group), health condition, loneliness, ethnic status, divorce and separation. For these variables, the size of the coefficient in model 4 is significantly smaller (in absolute

value) than in model 3. The differences are statistically significant at 1% level for all these variables, except separation where it holds at 5% level.

Unhappiness is most likely among those with the lowest incomes (the bottom quintile group). Although unhappiness is less prevalent and "bliss" is more likely among high income individuals (top income quintile), the effect is smaller in the latter case. Thus, the relationship between unhappiness and income level is stronger than among high level of happiness and income.

Individuals with health impairment are less likely to be very happy and more likely to be unhappy, but the size of the effect for unhappiness is greater.

While unemployment is more likely to be a state of unhappiness, inactive status (other than being a student) is more likely to be associated with high levels of happiness.

Table 3 Personal characteristics and the chance to be among the least/most satisfied (happy) 25%, logit regression

Dependent variables: self-reported life satisfaction or happiness, different dummies	(5) „misery“ Dissatisfied	(6) „bliss“ Satisfied	(7) „misery“ Unhappy	(8) „bliss“ Happy
Lowest Income Quintile	0.425***	-0.207***	0.350***	-0.155***
	(0.0451)	(0.0479)	(0.0490)	(0.0455)
Second Income Quintile	0.0778*	-0.0433	-0.00169	-0.0516
	(0.0444)	(0.0453)	(0.0488)	(0.0435)
Fourth Income Quintile	-0.202***	0.136***	-0.225***	0.106**
	(0.0443)	(0.0437)	(0.0489)	(0.0422)
Highest Income Quintile	-0.610***	0.329***	-0.527***	0.325***
	(0.0479)	(0.0443)	(0.0531)	(0.0426)
In education	-0.381***	0.222***	-0.276***	0.0988
	(0.0846)	(0.0687)	(0.0964)	(0.0661)
Unemployed	0.776***	-0.392***	0.732***	-0.286***
	(0.0614)	(0.0848)	(0.0643)	(0.0750)
Inactive	0.0885**	0.168***	0.0769*	0.142***
	(0.0406)	(0.0414)	(0.0450)	(0.0396)
Lonely	0.661***	-0.401***	0.800***	-0.434***
	(0.0422)	(0.0540)	(0.0435)	(0.0528)
Churchgoer	-0.237***	0.204***	-0.186***	0.194***
	(0.0353)	(0.0356)	(0.0387)	(0.0341)
Health Hampers a Lot	1.236***	-0.887***	1.092***	-0.570***
	(0.0563)	(0.0733)	(0.0583)	(0.0666)
Health Hampers a Little	0.553***	-0.442***	0.623***	-0.399***
	(0.0365)	(0.0388)	(0.0391)	(0.0377)
Male	0.00679	-0.141***	0.0522	-0.183***
	(0.0296)	(0.0288)	(0.0327)	(0.0276)
Ethnic minority	0.165***	-0.113	0.268***	-0.0551
	(0.0597)	(0.0695)	(0.0623)	(0.0644)
Separated	0.634***	-0.433***	0.780***	-0.599***
	(0.107)	(0.123)	(0.115)	(0.120)
Divorced	0.571***	-0.511***	0.745***	-0.596***
	(0.0497)	(0.0559)	(0.0530)	(0.0542)
Widowed	0.336***	-0.472***	0.679***	-0.623***
	(0.0520)	(0.0590)	(0.0537)	(0.0591)
Never Married	0.392***	-0.437***	0.560***	-0.555***
	(0.0464)	(0.0449)	(0.0515)	(0.0432)
Other personal controls	Yes	Yes	Yes	Yes
Country controls	Yes	Yes	Yes	Yes
Constant	-3.011***	0.625***	-3.726***	1.102***
	(0.164)	(0.158)	(0.183)	(0.152)
Observations	33,951	33,951	33,843	33,843
Log likelihood	-15761	-16250	-13457	-17408

Source: Own calculations, based on the European Social Survey, ESS4-2008 Edition 4.0
Notes: Dissatisfied (unhappy): self-rated life satisfaction (happiness) with scores 0-5. Satisfied (happy): score of 9-10.
Other personal controls: education level, age, children at home
Standard errors in parentheses, *** p<0.01, ** p<0.05, * p<0.1

Additional models include a larger part of the population, around half of the sample, exploring the personal characteristics of those who reported relatively low well-being (the bottom quarter with the lowest values of life satisfaction or happiness) and the top quarter (those with the highest values of life satisfaction or happiness).

These models, using a more generous cut-off point, both for self-reported life satisfaction and self-reported happiness, indicate that there are significant differences between the absolute size of the coefficients at the bottom end and the top end of the well-being scale (Table 3).

The explanatory variables of "dissatisfaction" (model 5) and "satisfaction" (model 6) were found to differ in size. Loneliness, lowest income quintile, highest income quintile, unemployment, health impairment and widowhood tend to be more correlated with dissatisfaction than with satisfaction. For the top income group, the sign of the estimated coefficient differs from those of other variables: it is negative for dissatisfaction, showing a lower probability and positive for high satisfaction, indicating a higher probability.

In the happiness equations, exploring the characteristics of unhappiness (model 7) and relative happiness (model 8), we also found that the size of the coefficients tends to be higher (in absolute value) for most variables in the "unhappiness" equation (model 7). Individuals who are lonely, belong to the lowest income quintile, unemployed or have health impairment are more likely to be unhappy. Those who belong to the top income quintile are less likely to be unhappy, and more likely to be happy, but the latter effect (in model 8) is smaller.

4 Implications

These findings have implications for the measurement of subjective well-being and for public policy.

Our results confirm that the dissatisfaction-satisfaction and the unhappiness-happiness scales are bipolar, linking two rather distinct qualities of personal experience. We found that observable personal characteristics are more strongly correlated with unhappiness (dissatisfaction) than with happiness (high satisfaction). Cummins (2012) argues that such bipolar scales should be replaced by unipolar scales. He says that bipolar scales force the data to appear as though they are on a continuum. In addition, the mid-point of a bipolar scheme ('neutral' or 'neither satisfied nor dissatisfied') has no psychological meaning in itself. In our view, the commonly used self-reported life satisfaction and happiness measures, and the empirical analysis where they are often treated as linear measures, may ignore the immense suffering of a minority. Happiness economics may thus ill advise public policy.

The results have implications for public policy as well. The negative impact of unemployment and the positive impact of income on well-being at a given point in time has been showed by a number of studies (Noll and Weick 2010; Andrew E. Clark and Oswald 1994; Winkelmann and Winkelmann 1998; Gallie and Russell 1998; Whelan and McGinnity 2000). In addition to this evidence, we showed a non-linear relationship between income and subjective well-being. The relationship between high income and dissatisfaction (unhappiness) was stronger than between high income and high satisfaction (high levels of happiness). We could simply say that money is more powerful as a means for avoiding unhappiness than one for buying happiness.

We found a similar asymmetric relationship between health impairment and subjective well-being. Disability appears to increase the prevalence of "misery", low well-being, but it seems to have a much weaker effect on "bliss". This finding appears to confirm our hypothesis that some individuals may find a life with meaning despite their health impairment and may still be very happy with their lives. We also found that severe health impairment had a stronger (negative) relationship with high satisfaction than with high levels of happiness. Disability might thus affect the cognitive assessment of quality of life more than daily pleasures (experienced happiness) as such. This issue would need further, more specific exploration.

If money, unemployment, ethnic background, social isolation tend to be more strongly linked to unhappiness than to (the lack of) happiness, than minimizing misery appears to be a more optimal strategy for public policies than maximizing happiness.

In addition, misery (extreme unhappiness or dissatisfaction) may be an undesirable personal condition as such, similar to poverty or social exclusion. It is probably a state where nobody would want to be in over a longer period of time. Policy could perhaps normatively identify it as a situation which is undesirable and thus devise strategies to overcome it. Note, however, that the so-called satisfaction paradox needs to be taken into account, i.e. the poor may be satisfied despite their adverse situation (Olson and Schober 1993)[5]. Policies tailored to mental illness and physical disabilities could bring major potential positive effects not only for the individuals affected, but the society as a whole due to the efficiency gains (more integration into the world of work or activities with a social value) and the positive external effects (more social integration).

5 Conclusion

Policy focus on well-being is an important step forward in measuring social progress, and in measuring what really matters for the people. This, however, does not imply the maximization of happiness.

Our study, using a cross-sectional cross-national dataset with about 57000 individuals, has shown that observable personal characteristics tend to predict unhappiness more than happiness. It seems that the path to unhappiness is more visible to a quantitative researcher than the path to happiness. In our view, the commonly used self-reported life satisfaction and happiness measures, and the empirical analysis where they are often treated as linear measures, may ignore the immense suffering of a minority.

Preventing avoidable unhappiness could be given priority as a policy goal. Unhappiness could be regarded as an undesirable personal condition as such, similar to poverty or social exclusion, and the role for public policies could be identified. Here, starting with focusing on mental ill-health may be a good starting point, but early interventions to promote children's emotional well-being, especially at an early age, are likely to be very effective as well.

[5] By and large, however, people tend to have a preference for goods and situations which promote their well-being, as empirical evidence suggests (see e.g. Lelkes 2006).

Annex

Table 4 Survey measure of self-reported life satisfaction

How satisfied with life as a whole	Freq.	Percent
Extremely dissatisfied	773	1.69
1	547	1.20
2	1,135	2.49
3	1,992	4.36
4	2,184	4.79
5	5,136	11.25
6	4,086	8.95
7	8,097	17.74
8	11,775	25.80
9	5,822	12.76
Extremely satisfied	4,087	8.96
Total	45,634	100.00

Source: Own calculations, based on the European Social Survey, ESS4-2008 Edition 4.0

Table 5 Survey measure of self-reported happiness

How happy are you	Freq.	Percent
Extremely unhappy	250	0.55
1	279	0.61
2	591	1.30
3	1,175	2.58
4	1,407	3.09
5	4,542	9.96
6	4,122	9.04
7	8,856	19.41
8	13,041	28.59
9	6,957	15.25
Extremely happy	4,396	9.64
Total	45,617	100.00

Source: Own calculations, based on the European Social Survey, ESS4-2008 Edition 4.0

Table 6 Social groups in the sample: number of observations and share

Social group	Definition	N	%
Young adults, 18-29	Aged 18-29	8,068	17.59
Elderly, 65+	Aged 65 or more	8,696	18.95
Bottom income quintile	Belongs to the bottom income fifth group, based on total disposable household income adjusted to household size	6,670	18.26
Top income quintile	Belongs to the top income fifth group, based on total disposable household income adjusted to household size	8,074	22.1
In education	Based on self-reported employment status	4,076	8.91
Unemployed	Based on self-reported employment status	2,309	5.05
Inactive	Based on self-reported employment status, includes those in retirement, doing housework or those who are long term sick or disabled, and excludes those who are in full-time education.	15,771	34.49
Low education	Less than lower secondary education (isced 0-1)	6,271	13.7
Tertiary education	Tertiary education completed (isced 5-6)	12,065	26.35
Disabled	Hampered "a lot" in their daily activities by a longstanding illness, or disability, infirmity or mental health problem	2,708	5.92
Migrant	Not born in the country	3,606	7.88
Ethnic minority	Self-declared ethnicity status (Those who answered "yes" to the question: „Do you belong to a minority ethnic group?")	2,496	5.52
Socially isolated	Has no one with whom they can discuss intimate and personal matters? "Intimate" implies things like sex or family matters, "personal" could include work or occupational issues as well	4,163	9.16
Churchgoer	Attends religious services at least once a month (apart from special occasions).	11,820	25.93
Politically active	Political participation in 2 or more activities (out of 6) during the past 12 months, incl. contacted politician or government official, worked in political party or action group, worked in another organisation or association, worn or displayed campaign, taken part in lawful public demonstration, boycotted certain products	7,200	15.69

Source: Own calculations, based on the European Social Survey, ESS4-2008 Edition 4.0

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