

# PERSONAL AND SOCIAL WELL-BEING MODULE

## for the European Social Survey, Round 3

Questionnaire Design Team: Felicia Huppert, Nic Marks, Andrew Clark, Johannes Siegrist, Alois Stutzer, Joar Vittersø

### GENERAL BACKGROUND

Whilst national governments and the EU spend millions of euros collecting and analysing economic (and to a lesser extent social and environmental) indicators, very little attention has been given to how citizens across Europe are actually faring. In other words, much is known about the material conditions of people's lives but much less about their actual experience of the quality of their lives, which we refer to as their 'well-being'.

Leading psychologists, such as Ed Diener, Martin Seligman and Nobel laureate Daniel Kahneman, have started to call for governments to create national well-being accounts to supplement existing, predominantly economic data. In their influential 2004 paper called '*Beyond Money: toward an economy of well-being*' Diener and Seligman write:

*Policy decisions at the organisational, corporate and government levels should be more heavily influenced by issues relating to well-being... For example, although economic output has risen steeply over the past decades, there has been no rise in life satisfaction during this period, and there has been a substantial increase in depression and distrust... [however] ... a major problem with using current findings on well-being to guide policy is that they derive from diverse and incommensurable measures of different concepts, in a haphazard mix of respondents... Periodic, systematic assessment of well-being will offer policymakers a much stronger set of findings to use in policy making decisions. (Diener and Seligman, 2004 p1)*

In the UK these issues have recently started to be addressed by policy-makers, initiated by the Prime Minister's Strategy Unit producing a paper in 2002 on the policy implications of life satisfaction (Donovan & Halpern, 2002) and further developed by Layard's book on economics and happiness (Layard, 2005) and the new economics foundation's well-being manifesto (Shah & Marks, 2004; Marks & Shah, 2005). This momentum is reflected in the UK Government's sustainable development strategy, *Securing the Future*, published in April 2005, which strongly supports the notion that well-being is an appropriate aim of government. It states:

*The issue of wellbeing lies at the heart of sustainable development, and it remains important to develop appropriate well-being indicators... What is missing is a means of making sure that wellbeing issues are being tackled consistently, in the right way, and that we are genuinely making a difference to people's lives. (HM Government 2005, p23)*

The EU has also started to consider the implications of taking people's quality of life seriously. In October 2005 the European Commission adopted a green paper on mental health, in which it states:

*The Green Paper aims to launch a public consultation on how better to tackle mental illness and promote mental well-being in the EU. Mental illness affects over 27% of European adults every year, and is responsible for the majority of the annual 58 000 deaths by suicide, more than the number who die from motor vehicle traffic accidents. Moreover, mental health levels can have a significant influence on the economic and social welfare of society. Until recently, however, the importance of mental health has been largely overshadowed by other public health matters. The Commission is therefore*

*initiating a wide ranging debate on the issue, to highlight the importance of mental well-being and to examine how best to develop a comprehensive EU strategy on mental health. (Commission of the European Communities 2005)*

## **Aims and theoretical perspective**

This module seeks to gain a deeper, systematic understanding of how people experience their lives, i.e. subjective aspects, with a view to describing how well-being varies across European nations, identifying the structural, social and individual factors associated with different levels or profiles of well-being, and using this information to provide a foundation for policies that are concerned with human well-being.

The specific aim of the module is to provide a new set of well-being indicators, which will offer a more textured approach to the measurement and understanding of well-being. These new measures will supplement the single-item, global measures of life satisfaction or happiness that are so widely used in surveys, including the core ESS, and on which most of our knowledge is currently based. Some surveys have extended the satisfaction measures to cover various domains of life, such as work, finances, relationships, health (e.g. Cummins, 1997) and this has led to more nuanced results, establishing for example, that different age groups show different profiles of domain satisfaction (e.g. Easterlin, In press). However, it is our intention to expand the measurement of well-being beyond how people feel (affect and satisfaction) to incorporate also how well they function.

This aspect of the module has its philosophical roots in Aristotle's concept of *eudaimonia*, the life well-lived, and creates a bridge between the more private realm of personal happiness to the more public issues of competencies, freedoms and opportunities. These ideas have been powerfully elaborated in the work of Amartya Sen (1999) which highlights the necessity of having freedom and democracy in order for individuals to develop their capabilities and function effectively.

Sen's focus is on developing nations, where poverty, lack of opportunities and absence of health care seriously limit the functional ability of many individuals. The evidence from economically developed countries paints a different picture. Numerous surveys have shown a relationship between material circumstances and how people feel about their lives (eg Donovan & Halpern, 2002; Helliwell, 2003; Helliwell & Putnam, 2005), but external circumstances account for only about 10% of the variation between individuals in measures of life satisfaction or happiness (Lyubomirsky et al., 2005). These authors propose that a far greater amount of the variation is explained by "intentional activities", that is, aspects of functioning over which individuals have some control e.g. the way they behave towards others, the types of goals they pursue. This reinforces the importance of understanding well-being as an active process, concerned with how well people function, rather than merely a passive process – how good they feel.

Other influential psychologists have emphasised functional aspects of well-being. They include Ryff, whose concept of psychological well-being derives from the eudaimonic perspective, and comprises six components: autonomy, environmental mastery, personal growth, positive relationships, purpose in life and self-acceptance (Ryff, 1989; Ryff & Singer, 1998). Deci & Ryan (2000) regard autonomy, competence (similar to environmental mastery) and positive relationships as the basic psychological needs which must be met if we are to have well-being. Seligman defines happiness as the combination of pleasure, engagement and meaning (Seligman, 2002), identifying pleasure as the hedonic component and engagement and meaning as the eudaimonic components. The work of authors such as Amabile (Amabile et al., 1994), Kashdan (Kashdan et al., 2004) and Vittersø (Vittersø et al., 2005) which examines the domain of engagement, interestingness and curiosity, can also be seen as central to a concept of well-being which focuses on 'doing' rather than 'being'.

The vast majority of well-being research is individual-focussed, examining personal experiences almost as if the individual lived in isolation from others. Ryff's 'positive relations with others' scale (Ryff, 1989) and Deci & Ryan's 'relatedness' measures (Deci & Ryan, 2000) are important exceptions. In light of the overwhelming evidence that interpersonal and social interactions play a crucial role in our well-being (e.g. House et al, 1988), we propose to cover this important aspect of daily life in our well-being module. Existing scales which are concerned with interpersonal relationships, usually focus on measures of social support, i.e. what we receive from others. Important as social support is, particularly if we have a problem (e.g. Huppert & Whittington, 2003), there is evidence that social contribution, i.e. giving to others or doing things for others, is an important contributor to our general well-being. One investigator who has taken a particular interest in social well-being is Keyes (1998) who suggests that it can be thought of in terms of five components: social coherence, social integration, social acceptance, social contribution and social actualization.

The theoretical perspectives described above, have guided the development of a simple, conceptual framework which underpins the well-being module. It is divided into two sections, corresponding to personal and inter-personal dimensions of well-being. Each of these is further sub-divided into feeling and functioning.

	<b>Personal</b>	<b>Interpersonal</b>
<b>Feeling</b> (having, being)		
<b>Functioning</b> (doing)		

It had been our intention originally to measure each of these four concepts using both a standard evaluative approach and a more experiential approach of the kind recommended by Kahneman (Kahneman et al., 2004; Kahneman & Riis, 2005). The Experience Sampling Method (ESM) is the definitive way of measuring people's experiences by asking them to report what they are doing and feeling at random times during the day in response to a beeper (Csikszentmihalyi & Larson, 1987). Given the impracticality of this approach for survey research, Kahneman et al. (2004) developed the Day Reconstruction Method (DRM) which invites participants to recall as vividly as possible the events of the preceding day and report on what they were doing and how they were feeling. Our first version of the well-being module incorporated a short set of DRM questions, but it was eventually decided that these were insufficient to do justice to this method of measurement, and were regrettably dropped from the final module. However, in addition to the general evaluative questions used in this module, we have included a set of questions with a specific, recent time frame (the past week). We hope that by doing so we will be able to get responses based on the experience of recent events, as well as the more general, evaluative responses which are based in part on the person's self-image.

In addition to items which are designed to fit the conceptual framework described above, we have incorporated a number of supplementary items which we believe have an effect on well-being. These include risk of unemployment, income comparison, physical activity and feelings about watching television. These are presented in a separate section at the end of this document.

To summarise, the module extends the measurement of well-being in several ways:

- It adopts a definition of well-being which incorporates not only how people feel, e.g. the experiences of pleasure, enjoyment, satisfaction, but also how people function, e.g. their sense of autonomy, competence, interest, engagement and meaning or purpose in life.
- It gives emphasis to inter-personal, or social, well-being as well as personal well-being.
- It incorporates two complementary methodologies: (a) general evaluative questions that assess the individual's feelings and functionings (within or across domains), and (b) more specific questions that ask about events that are relatively fresh in the respondent's mind (what happened during the past week).

## Item selection

While the overall aim and framework for this module can be readily specified, the choice of specific concepts within the field of well-being, and the choice of specific items to measure these concepts has proved to be a major challenge. This is because there is not yet a consensus among psychologists about the components of well-being, or what would constitute the "gold standard" for measuring well-being. However, there is a consensus that the measurement of well-being is important and should be undertaken in major surveys, while recognising that this is an emerging science (Diener, In press).

Some investigators have adopted a very pragmatic approach to the assessment of well-being using global life satisfaction and domain satisfaction as their key indicators (eg Cummins, 1997). While we have included some measures of satisfaction in the module (in addition to the global life satisfaction question in the ESS core), we believe that a dependence on satisfaction measures is unwise. Satisfaction indicates the extent to which one's experiences match one's expectations, so a high level of satisfaction will be reported both by people who have very positive experiences, and by people who have less positive experiences but low expectations.

We have tried to steer a course between the various pragmatic and theoretical approaches to well-being, by including in this module, concepts that most investigators regard as being important aspects of well-being, whether conceived as components or precursors. In Round 3 of the ESS, new modules were restricted to 50 questions (although questions about jobs count as half, since they apply to only half the population). Therefore, much as we would have liked to, we were unable to incorporate whole scales, and had to be very selective about which items we chose. Where possible, we have used or adapted existing items, but in many cases, we found that existing items did not express clearly and succinctly the concept that we were trying to measure, or that the way in which the question was worded would lead to difficulties in interpretation or translation. Accordingly, a number of items have been developed for this survey. The origins of all items are indicated.

We recommend that the data obtained from the module be used in a flexible way. At one extreme, Europe-wide responses to individual items will provide valuable descriptive, and often policy-relevant information. At the other extreme, psychometric analysis of the data obtained from the survey will indicate how to combine items into the most informative summary measures of well-being. At an intermediate level of analysis, examination of the relationship between these new measures and the single-item life satisfaction/happiness questions should also yield valuable insights into the meaning and validity of these widely used measures.

**Notes** In this document, items are generally listed in the section of the conceptual framework to which they belong. However, in the ESS questionnaire they are intermixed, according to question topic and type of response format.

The information in square brackets following each item indicates the specific construct that is being assessed, along with the origin of the item. The code in square brackets that follows this description indicates the location of the item in the ESS questionnaire - (the E number; E refers to Section E, the Well-being Module).

## **SECTION 1 Personal feelings**

### Background

Whilst this module seeks to expand the concept of well-being to include functioning and interpersonal aspects of well-being, people's reports of their personal feelings remain one of the foundations of any concept of well-being. The measures used in this section, together with the items on life satisfaction and happiness in the ESS core, are predominantly well established and have a strong research history. By using statistical techniques such as factor analysis, psychologists have shown that a number of factors contribute independently to the overall level of subjective well-being (SWB). These factors include life satisfaction, the presence of positive emotions, and the absence of negative emotions (eg Diener et al., 1999). These can to some degree be systemised in temporal terms by assessing people's feelings about the past, present and future. In addition, some individual characteristics or behaviours have been identified which predispose the person to having high levels of SWB.

Specifically, this part of the module includes an extension of the concept of satisfaction with life by adding questions on satisfaction with specific domains; work, standard of living and work-life balance. We have augmented the happiness (positive affect) item which is in the ESS core by adding a standard set of questions about experiences of positive and negative emotions in the past week – the 8-item Center for Epidemiologic Studies Depression Scale (CES-D), which is a widely used and well validated measure (HRS Health Working Group, 2000: Radloff, 1977). We are supplementing this set of questions with 3 items about energy from the Survey of Health, Ageing and Retirement in Europe (SHARE), as well as one additional positive mood item from the Midlife in the US (MIDUS) study (feeling calm and peaceful; Brim et al, 2004), and one additional negative mood item (anxiety) which we regard as being as important as depression, and two items about interestingness (absorbed, bored). As well as these direct evaluations of people's feelings, this part of the module assesses some person appraisals that predispose people towards high levels of well-being; these include satisfaction with one's achievements (positive feelings about the past), optimism (positive feelings about the future) and self-esteem (positive feelings about oneself).

1. I'm always optimistic about my future. [Optimism - from Revised Life Orientation Test of Scheier, Carver, & Bridges] [E4]
2. In general, I feel very positive about myself. [Self esteem – adapted from Ryff Self-acceptance Scale] [E5]
3. At times I think I am a failure. [Self esteem – adapted from Rosenberg Self-esteem scale] [E6]
4. On the whole my life is close to how I would like it to be. [Satisfaction with the present – adapted from Diener Life Satisfaction scale] [E7]
5. I will now read out a list of the ways you might have felt or behaved in the past week. Please tell me how much of the time during the past week:

- (a) ... you felt depressed
- (b) ... you felt that everything you did was an effort
- (c) ... your sleep was restless
- (d) ... you were happy
- (e) ... you felt lonely
- (f) ... you enjoyed life
- (g) ... you felt sad
- (h) ... you could not get going

[Symptoms of depression – from the 8-item CES-D] [E 8-15].

Please tell me how much of the time during the past week:

- (i) ... you had a lot of energy
- (j) ... you felt tired
- (k) ... you felt calm and peaceful
- (l) ... you felt really rested when you woke up in the morning
- (m)... you anxious
- (n) ... you were absorbed in what you were doing
- (o) ... you felt bored

[These items come from: SHARE (3 energy items), MIDUS (positive affect – calm and peaceful) and 3 items developed for this survey: negative affect (anxiety) and interestingness (absorbed and bored).] [E16-22].

- 6. How satisfied are you with how your life has turned out so far? [Satisfaction with the past - adapted from Diener: Life Satisfaction scale] [E31]
- 7. How satisfied are you with your present standard of living? [Satisfaction with material circumstances – from Index of Life Satisfaction: Cummins] [E32]

### **For respondents in paid work**

- 8. All things considered, how satisfied are you with your present job? [Job satisfaction - various sources including British Household Panel Survey] [E48]
- 9. How satisfied are you with the balance between the time you spend on your paid work and the time you spend on others aspects of your life? [Satisfaction with work-life balance - adapted from David Guest’s survey for Chartered Institute of Personnel Development and the ESS Round 2 module on family and work] [E49]
- 10. How much of the time do you find your job:
  - .... interesting?
  - .... stressful?

[Positive and negative affect about work - developed for this survey] [E50, 51]

## **SECTION 2 Personal functioning**

### Background

Evidence from a variety of sources shows that people’s perceptions of how well they are functioning, how much control they have over their lives, and the extent to which they perceive

their activities as having meaning, are central to an overall sense of well-being (Ryan & Deci, 2001; Diener & Fujita, In press; Ryff, 1989; Ryff & Singer, 1998; Seligman, 2002). For example, Ryan and Deci have demonstrated that three basic psychological needs have to be satisfied in order for people to function in healthy or optimal ways; these are the need for autonomy (having a sense of control over one's life), competence (a sense that one is functioning effectively) and relatedness (having positive interactions with others) (Deci & Ryan, 2000). However, the relative importance of each of these needs can vary widely across countries and across cultures (Ryan & Deci, 2001). Other investigators have shown that health and overall life satisfaction are strongly related to having a sense of meaning or purpose in life (Ryff & Singer, 1998; Diener & Fujita, In press; Seligman, 2002). Purpose in life is closely related to the notion of pursuing goals and investing in the future, as well as believing that what one does is of value.

Some investigators have shown that there are further aspects of functioning that are central to psychological well-being and are the hallmarks of productivity and creativity; these include being fully engaged in one's activities and finding them challenging (Csikszentmihalyi, 1997) and having a sense of curiosity or willingness to learn new things (Kashdan et al, 2004). We have also incorporated a question about psychological resilience (the ability to recover rapidly or 'bounce back'), which indicates the duration of people's impaired functioning in response to specific setbacks (Seligman, 2002 p91).

This part of the module assesses individual aspects of these concepts. Specifically, it includes questions about autonomy, competence and self-efficacy, future orientation, interest in learning, sense of meaning and purpose, and resilience.

1. I feel I am free to decide for myself how to live my life. [Autonomy – adapted from Ryan & Deci: Autonomy scale] [E23]
2. In my daily life I get very little chance to show how capable I am. [Competence - adapted from Ryan & Deci: Competence scale] [E25]
3. I love learning new things. [Interest in learning – from Petersen & Seligman: VIA questionnaire] [E26]
4. Most days I feel a sense of accomplishment from what I do. [Competence/achievement – from Ryan & Deci: Competence scale] [E27]
5. In my daily life I seldom have time to do the things I really enjoy. [Time use - developed for this survey] [E24]
6. I like planning and preparing for the future. [Future orientation - adapted from Ryff: Purpose in Life scale] [E28]
7. When things go wrong in my life, it generally takes me a long time to get back to normal. [Resilience - developed for this survey] [E29]
8. To what extent do you get a chance to learn new things? [Opportunities for learning – developed for this survey] [E35]
9. I generally feel that what I do in my life is valuable and worthwhile. [Purpose in life – developed for this survey] [E40]

## SECTION 3 Inter-personal feelings

### Background

Extensive research shows that the quality of interactions with others influences all aspects of health and functioning (Elliott & Umberson, 2004; House et al, 1988). For example, it is well known that social isolation is strongly associated with morbidity and mortality, while social support has a strong positive relationship with physical and mental health and healthy lifestyle (eg House et al, 1988). The concept of social reciprocity (the perceived relationship between what one gives and what one receives) is related to the concepts of being treated fairly, and this has been strongly linked to health and productive activities (Siegrist et al., 2004; Siegrist, 2005). Other concepts within this section (and the following one) come from Keyes' work on social well-being (Keyes, 1998) which he divides into social coherence, social integration, social acceptance, social contribution and social actualization.

This part augments the questions incorporated in the core ESS about trust, the presence of an intimate relationship, whether one is in a group that is discriminated against, and religious affiliation and practice. All but one of these core ESS questions (intimate relationship) are essentially objective. In order to understand more about relationship quality, we have included questions about how people evaluate their relationships.

In this section of the module, we assess social isolation with a question about loneliness (administered as part of the CES-D in Section 1.1) and a question about a sense of belonging. This section also includes questions about being treated fairly, being treated with respect, being cared for and supported, as well as questions about the quality of family relationships, social reciprocity and perceived social progress.

1. To what extent do you feel that people in your local area help one another? [Community support – developed for this survey] [E36]
2. To what extent do you feel that people treat you with respect? [Respectful treatment – developed for this survey] [E37]
3. To what extent do you feel that people treat you unfairly? [Fair treatment - adapted from Antonovsky: Sense of Coherence scale] [E38]
4. To what extent do you feel that you get the recognition you deserve for what you do? [Social reciprocity – from Siegrist: Effort/reward Imbalance scale] [E39]
5. How much of the time spent with your immediate family:  
.... is enjoyable?  
.... is stressful?  
[Relationship with family - developed for this survey] [E33, 34]
6. There are people in my life who really care about me. [Social support – adapted from Ryan & Deci: Relatedness scale] [E43]
7. I feel close to the people in my local area. [Belonging – developed for this survey] [E45]
8. For most people in [COUNTRY] life is getting worse rather than better. [Social progress – developed for this survey] [E44]

9. The way things are now, I find it hard to be hopeful about the future of the world. [Social progress – developed for this survey] [E42]

## **SECTION 4 Inter-personal functioning**

### Background

The previous section was about being the recipient of what other people or society have to offer, whereas this section is about what the individual does for other people or for their community. In other words, it is about pro-social behaviour. While there are policies across Europe that are concerned with reducing anti-social behaviour, there is evidence that pro-social behaviour, behaviour that builds social capital, improves the well-being of both the person behaving pro-socially, and those around them (Helliwell & Putnam, 2005). Identifying the prevalence of pro-social behaviour around Europe as well as the factors that contribute to it will have implications both for understanding this form of inter-personal functioning, and developing policies that encourage it in many more people.

The core ESS interview contains no relevant items, but the self-report ESS Values section includes a wealth of information about the value the individual places on inter-personal functioning. This new well-being module, in contrast, enquires about the individual's actual engagement in such activities, since even if a high value is placed on them, they may not in fact form a part of the individual's life. This part of the module assesses several aspects of pro-social behaviour, including caring, volunteering, social participation and altruism.

How often, if at all, did you do each of the following in the past 12 months:

1. ... got involved in work for voluntary or charitable organisations? [Volunteering - developed for this survey] [E1]
2. ... not counting anything you do for your family, in your work, or within voluntary organisations, actively provide help for other people? [Caring for others – from ESS Round 2: Family, work and well-being module] [E2]
3. ... help with or attend activities in your local area? [Social engagement – developed for this survey] [E3]
4. If I help someone, I expect some help in return. [Altruism - developed for this survey] [E41]

## **FURTHER QUESTIONS**

There are a number of additional questions which we regard as being important for the understanding of well-being, but which fall outside our conceptual framework.

### **Physical activity**

1. My life involves a lot of physical activity. [Developed for this survey] [E30]

### **TV watching**

2. Do you ever feel frustrated by having watched too much television? [Developed for this survey] [E46]

### **Risk of unemployment**

3. How likely would you say it is that you will become unemployed in the next 12 months? [Adapted from Swiss Household Panel Survey] [E52]

### **Income comparisons**

4. How important is it to you to compare your income with other people's incomes? [Developed for this survey] [E54]
5. Whose income would you be most likely to compare your own with? Please choose one of the following groups: work colleagues, family members, friends, others. [Developed for this survey] [E55]

## References:

- Amabile, T. M., Hill, K. G., Hennessey, B. A., & Tighe, E. M. (1994). The work preference inventory: Assessing intrinsic and extrinsic motivational orientation. *Journal of Personality and Social Psychology*, 66, 950-967
- Antonovsky, A. (1993) The structure and properties of the sense of coherence scale. *Social Science and Medicine*, 36(6), 725-733.
- Brim, OG, Ryff, CD & Kessler, RC. (Eds.) (2004) *How Healthy Are We? A national study of well-being at midlife*. Chicago: University of Chicago Press.
- Brown, Stephanie L. (2003) An altruistic reanalysis of the social support hypothesis: The health benefits of giving. In: *New Directions for Philanthropic Fundraising*. Chap.4, No. 42, Wiley Periodicals Inc.
- Brown, Stephanie L., Nesse, Randolph M., Vinokur, Amiram D. & Smith, Dylan M. (2003) Providing social support may be more beneficial than receiving it: results from a prospective study of mortality. *Psychological Science*, 14(4), 320-327.
- Commission of the European Communities (2005); press release 14-10-05 for Green Paper: Improving the mental health of the population, towards a strategy on mental health for the European Union, COM 2005, 484 final:
- Csikszentmihalyi M. (1997) *Activity, experience and personal growth*. Champaign, IL: Human Kinetics.
- Csikszentmihalyi, M. & Larson, R. (1987) Validity and reliability of the Experience-Sampling Method. *Journal of Nervous Mental Disorder*, 175(9), 526-36.
- Cummins, R.A. (1997) *The Comprehensive Quality of Life Scale – Adult (ComQol-A5)*. (5<sup>th</sup> Ed.) School of Psychology, Deakin University, Melbourne.
- Deci, E.L., La Guardia, J.G., Miller, A.C., Scheiner, M.J. & Ryan, R.M. (2006) On the benefits of giving as well as receiving autonomy support: Mutuality in close friendships. *Personality and Social Psychology Bulletin*, 32, 3, 313-327.
- Deci, E.L. & Ryan, R.M. (2000) The “what” and “why” of goal pursuits: Human needs and the self-determination of behaviour. *Psychological Inquiry*, 11, 227-268.
- Diener, E. (In press) Guidelines for National Indicators of Subjective Well-Being and Ill-Being. *Social Indicators Research*.
- Diener, E. & Fujita, F. (In press) Hedonism revisited: Life satisfaction is more than the sum of pleasant days.
- Diener, E. & Seligman, MEP. (2004) Beyond money: Toward an economy of well-being. *Psychological Science in the Public Interest*, 5, 1-31.
- Diener, E., Suh, E., Lucas, R.E. & Smith, H.L. (1999) Subjective well-being: Three decades of progress. *Psychological Bulletin*, 125, 276-302.
- Donovan, N and Halpern, D (2002) *Life Satisfaction: the state of knowledge and the implications for government* (Prime Minister’s Strategy Unit).

- Easterlin, R.A. (In press) Life cycle and its sources: Intersections of psychology, economics and demography. *Journal of Economic Psychology*.
- Elliott, S. & Umberson, D. (2004) Recent Demographic Trends in the US and Implications for Wellbeing. In: JL Scott, J Treas & M Richards (eds) *The Blackwell companion to the sociology of families*. Malden, MA: Blackwell.
- Helliwell, J.F. (2003). How's Life? Combining individual and national variations to explain subjective well-being. *Economic Modelling*, 20, 331-360.
- Helliwell, J. & Putnam, R.D. (2005) The social context of well-being. In FA Huppert, B Keverne & N Baylis (eds). *The Science of Well-being*. Oxford: Oxford University Press.
- House, J.S., Umberson, D. & Landis, K.R. (1988) Structures and Processes of Social Support. *Annual Review of Sociology*, 14, 293-318.
- HM Government (2005); *Securing the future: delivering UK sustainable development strategy*; TSO (The Stationary Office).
- HRS Health Working Group. (2000) Documentation of affective functioning measures in the Health and Retirement Study. HRS/AHEAD Documentation Report prepared by Diane E Steffick, University of Michigan.
- Huppert, F.A. & Whittington, J.E (2003) Evidence for the independence of positive and negative well-being: implications for quality of life assessment. *British Journal of Health Psychology*, 8, 107-122.
- Kahneman, D., Krueger, A B., Schkade, D., Schwarz, N. & Stone, AA. (2004). A survey method for characterizing daily life experience: The Day Reconstruction Method (DRM). *Science*, (3 Dec 2004), 1776-1780.
- Kahneman, D. & Riis, J. (2005) Living and thinking about it: two perspectives on life. In: FA Huppert, N Baylis & B Keverne (Eds.) *The Science of Well-being*. Oxford: Oxford University Press.
- Kashdan, T.B., Rose, P. & Fincham, F.D. (2004) Curiosity and exploration: Facilitating positive subjective experience and personal growth opportunities. *Journal of Personality Assessment*, 82, 291-305.
- Keyes, C.L.M. (1998) Social well-being. *Social Psychology Quarterly*, 61, 121-140.
- Layard, R. (2005) *Happiness: lessons from a new science*; Penguin books; London;
- Lyubomirsky, S. Sheldon, K.M. & Schkade, D. (2005) Pursuing Happiness: The Architecture of Sustainable Change. *Review of General Psychology*, 9, 2, 111-131.
- Marks, N. & Shah, H. (2005) A well-being manifesto for a flourishing society. In: Huppert F, Baylis, N & Keverne, B (Eds) *The Science of Well-being*. Oxford: Oxford University Press.
- Post, S.G. (2005) Altruism, happiness and health: It's good to be good. *International Journal of Behavioral Medicine*, 12, 2, 66-77.

Radloff, LS. (1977) The CES-D scale: A self-report depression scale for research in the general population. *Applied Psychological Measurement*, 1, 385-401.

Rosenberg, M. (1965). *Society and the Adolescent Self-Image*. Princeton: Princeton University Press.

Ryan, RM. & Deci, EL. (2001). On happiness and human potentials: A review of research on hedonic and eudaimonic well-being. *Annual Reviews of Psychology*, 52, 141-166.

Ryff, CD. (1989). Happiness is everything, or is it? Explorations on the meaning of psychological well-being. *Journal of Personality and Social Psychology*, 57, 1069-1081.

Ryff, CD. & Singer, B. (1998) The contours of positive human health. *Psychological Inquiry*, 9(1), 1-28.

Scheier, M. F., Carver, C. S., & Bridges, M. W. (1994). Distinguishing optimism from neuroticism (and trait anxiety, self mastery, and self esteem): A reevaluation of the life orientation test. *Journal of Personality and Social Psychology*, 67, 1063-1078

Seligman M. (2002). *Authentic happiness: Using the new positive psychology to realize your potential for lasting fulfillment*. New York: Free Press.

Sen, A. (1999) *Development as Freedom*. New York: Random House inc.

Shah, H. & Marks, N. (2004) *A well-being manifesto for a flourishing society*. New Economics Foundation (nef), London.

Siegrist J. (2005) Social reciprocity and health: new scientific evidence and policy implications. *Psychoneuroendocrinology*, 30:1033-1038

Siegrist J, Starke D, Chandola T, Godin I, Marmot M, Niedhammer I, Peter R (2004) The measurement of effort-reward imbalance at Work. European Comparison. *Social Science & Medicine* 58:1483-1499.

Vittersø, J., Biswas-Diener, R., & Diener, E. (2005). The divergent meanings of life satisfaction: Item response modeling of the Satisfaction With Life Scale in Greenland and Norway. *Social Indicators Research*, 74, 327-348