

**QUESTION MODULE DESIGN TEAM (ESS ROUND 6) APPLICATION FORM FOR
REPEAT MODULES¹**

Please return this form by email to:	Mary Keane ess@city.ac.uk (PDF files only)
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CLOSING DATE FOR APPLICATIONS: 17:00 hours UK Time on 12th May 2010

USE THE ARROW KEYS TO NAVIGATE ROUND THE FORM

1. Principal Applicant (*person to whom all correspondence will be sent*):

Forename: Felicia	Surname: Huppert
Position: Professor of Psychology and Director of the Well-being Institute	
Department: Department of Psychiatry	
Institution: University of Cambridge	
Full Address:	Box 189 Addenbrooke's Hospital Cambridge CB2 2QQ UK
Tel No: + 441223336970	Email: fah2@cam.ac.uk

2. Co-Applicants (*up to 4*):

(i) Forename: Nic	Surname: Marks
Department: Founder of Centre for Well-being	
Institution: nef (the new economics foundation)	
Country: UK	Email: nic.marks@neweconomics.org

(ii) Forename: Johannes	Surname: Siegrist
Department: Professor and Director of Department of Medical Sociology	
Institution: University of Duesseldorf	
Country: Germany	Email: siegrist@uni-duesseldorf.de

(iii) Forename: Carmelo	Surname: Vázquez
Department: Professor of Psychopathology, Faculty of Psychology	
Institution: Complutense University	
Country: Spain	Email: cvazquez@psi.ucm.es

(iv) Forename: Joar	Surname: Vittersø
Department: Professor, Department of Psychology	
Institution: University of Tromsø	
Country: Norway	Email: joar.vitterso@uit.no

¹ A repeat of a topic previously included on the ESS where at least 60% of questions in the repeat module are administered in an identical format to those in the earlier module.

3. Proposed title of module (*max 80 characters*):

Personal and social well-being

4. Abstract (*max 200 words*)

An explicit aim of the European Union is to evaluate the success of European countries at promoting the well-being of their citizens. This requires systematic and detailed national well-being accounts for all EU countries. These will allow exploration of the effects of different political and social policies and contexts on the levels of well-being experienced by citizens. Crucially, this relies on repeated measurements of the different facets of well-being. This proposal therefore makes the case for repeating, in Round 6 of the ESS, the Well-being Module first implemented in Round 3. Growing policy interest in the measurement of well-being in general, and specifically in the findings from the previous module, indicates that there is an enthusiastic audience for the repeat measures which this would provide. We propose to retain many of the key features of the module's design, including the emphasis on both personal and social well-being, while strengthening its conceptual underpinning by tying it to the policy-relevant dynamic model of well-being. We will include new items to improve measurement of some existing concepts, incorporate a new validated scale of positive well-being, and include questions to explore developments in the evidence base on well-being promoting behaviours.

5. Curriculum vitae

(Please provide a brief CV for each applicant, including subject expertise, questionnaire design and analysis experience, relevant publications and record of joint working – maximum one page per applicant.)

Principal Applicant:

Felicia A Huppert is Professor of Psychology in the Department of Psychiatry at the University of Cambridge and Director of the University's Well-being Institute. She is a Fellow of the British Psychological Society, is a Member of the Board of Directors of the International Positive Psychology Association and Associate Editor of several academic journals in psychology and life-course studies. Born in Uzbekistan and raised in Australia, she received degrees from the Universities of Sydney, California (San Diego) and Cambridge.

Professor Huppert's research includes life-course studies on the causes and consequences of mental health and well-being, and the measurement of well-being. She has designed and analysed numerous national and international surveys including the English Longitudinal Study of Ageing (ELSA), the Medical Research Council Cognitive Function and Ageing Study (MRC CFAS), the Survey of Health, Aging and Retirement in Europe (SHARE) and has analysed the life-course antecedents of later life well-being in the 1946 British Birth Cohort Study. She was the lead expert on well-being for the UK Government's Foresight Project on Mental Capital and Wellbeing and a consultant to the Department of Health on their New Horizons initiative in positive mental health. She has also been a consultant to the US National Institutes of Health Toolbox initiative (emotional health domain) and advised the All-Party Parliamentary Group on well-being economics. She and her colleagues have recently developed measures of individual and community flourishing which will shortly be implemented in a county-wide intervention study which aims to enhance well-being in Norfolk, in collaboration with local authorities, third sector organisations and community representatives. As lead on the QDT which developed the Well-being Module for ESS Round 3, she has worked closely (and happily) with Nic Marks, Johannes Siegrist and Joar Vittersø. Carmelo Vázquez is new to the QDT, but has interacted as members of the Board of Directors of the International Positive Psychology Association and will be presenting a joint symposium at the European Conference on Positive Psychology in Copenhagen in June 2010.

Key publications

Huppert, F.A. (2010) Happiness breeds prosperity. Review of *The Politics of Happiness: What Government can learn from the new research on well-being*. Bok, D. Princeton University Press. *Nature*, 464, 29 April 2010, 1275-1276.

Plagnol, A.C. & Huppert, F.A. (2010) Happy to help? Exploring the factors associated with variations in rates of volunteering across Europe. *Social Indicators Research*, 97, 157-176.

Huppert, F.A., Marks, N., Clark, A., Siegrist, J., Stutzer, A., Vittersø, J. & Wahrendorf, M. (2009) Measuring well-being across Europe: Description of the ESS Well-being Module and preliminary findings. *Social Indicators Research*, 91(3), 301-315.

Huppert, F.A. & So, T. (2009) What percentage of people in Europe are flourishing and what characterises them? Briefing document for the OECD/ISQOLS meeting "Measuring subjective well-being: an opportunity for NSOs?" 23/24 July, 2009, Florence, Italy.

Huppert, F.A. (2009) A new approach to reducing disorder and improving well-being. In: E. Diener (Ed) *Perspectives on Psychological Science*, 4(1), 108-111.

Huppert, F.A. (2009) Psychological well-being: Evidence regarding its causes and consequences. *Applied Psychology: Health and Well-being*, 1(2), 137-164.

Huppert, F A, Baylis, N & Keeverne, B. (Eds.) (2005) *The Science of Well-being*. Oxford: Oxford University Press.

Curriculum vitae (continued):

Co-applicant 1:

Nic Marks (born 1964) is the Founder of the Centre for Well-being at nef (new economics foundation). nef is an independent think tank, based in London, with a focus is on sustainable development, social justice and people's well-being. The well-being work was initiated by Nic in 2001 with aim of exploring the question 'what would government policy look like if people's well-being was one of its principle aims?'

Nic Marks has an MA in Management Studies, Cambridge University (1986), an MSc in Operational Research, Lancaster University (1987) and a PostGradDip in Change Agent Skills and Strategies, Surrey University (2001). He is also a qualified psychotherapist.

Nic has experience of devising methodologies to measure well-being, statistical and analytical skills, and a proven ability to interpret findings in a way that makes sense for policy makers, practitioners and the general public. He was the lead author of nef's innovative Happy Planet Index, a global index of human well-being and environmental impact. He was an advisor to the UK Government Office for Science's Foresight project on 'mental capital and well-being' which was published in October 2008, which included the creation of "the five ways to well-being". He was a member of the QDT for round 3 of the ESS and devised, together with others at the centre for well-being, the model and methodology behind nef's report on National Accounts of Well-being, which gained extensive media coverage when launched in January 2009.

His relevant recent publications include:

Marks N (2010) Think before you think; forthcoming in Biswas-Diener, R. (Ed). Positive Psychology as a force for social change. Dordrecht, Netherlands: Springer.

Abdallah S, Thompson S, Michaelson J, Marks N and Steuer N (2009) The (un)Happy Planet Index 2.0: Why good lives don't have to cost the Earth, London, nef.

Michaelson J, Abdallah S, Steuer N, Thompson S and Marks N (2009) National Accounts of Well-being: bringing real wealth onto the balance sheet: London, nef

Huppert FA, Marks N, Clark A, Siegrist J, Stutzer A, Vitterso J and Wahrendorf M (2008) 'Measuring Well-being Across Europe: Description of the ESS Well-being Module and Preliminary Findings'. PSE Working Papers 2008-40, PSE (Ecole normale supérieure).

Aked J, Marks N, Cordon C, Thompson S (2008) Five ways to well-being: the evidence A report presented to the Foresight Project on communicating the evidence base for improving people's well-being: London nef

Thompson S, Marks N (2008) Measuring well-being in policy: Issues and applications. A report presented to the UK Government Foresight Project on Mental Capital and Well-being. London nef

Steuer N, Marks, N (2008) Local Wellbeing: can we measure it? London: Young Foundation/nef

Marks, N., Thompson, S., Eckersley, R., Jackson, T., & Kasser, T. (2006). Sustainable development and well-being: relationships, challenges and policy implications. The Department for Environment, Food and Rural Affairs.

Marks, N & Shah, H; (2004): 'A Well-being Manifesto: for a flourishing society'; nef; in FA Huppert, B Keverne & N Baylis, eds. The Science of Well-being. Oxford: Oxford University Press.

Curriculum vitae (continued):

Co-applicant 2:

Johannes Siegrist (born 1943) is Professor of Medical Sociology and Director of the respective Department at the University of Duesseldorf, Germany (since 1992). Previously he held a professorship at the University of Marburg (since 1973) and Visiting Professorship at the Johns Hopkins University, Baltimore, USA and the University of Utrecht, Netherlands.

His main area of research is 'social determinants of health' where he contributed to several international collaborative studies. He and his group developed the widely known theoretical model of effort-reward imbalance. In addition to numerous scientific publications he received several international and national awards, including membership of Academia Europaea and corresponding membership of the Heidelberg Academy of Sciences.

He has longstanding experience in designing and analysing survey data. He had – and continues to have – a leading role in designing the “Social Well-Being” module of the EU-funded Survey of Health, Ageing and Retirement in Europe (SHARE) which is currently carried out in thirteen European countries. Moreover he has contributed to the development of a module on social well-being in the frame of the English Longitudinal Study on Ageing (ELSA) and of a large study of elderly people in France (GAZEL).

His distinct contribution to survey research in this area is best defined by a theory based emphasis on reciprocal social exchange as an important prerequisite of health and well-being. In this regard, he has developed collaborative links with Felicia Huppert, Cambridge, in association with the London team of ELSA, directed by Michael Marmot. He has also been involved in a joint workshop on conceptual and methodological issues of well-being organized by Andrew Clark (Paris, 2003).

Examples of relevant recent publications include:

- Siegrist J, Marmot M (2004) Health inequalities and the psychosocial environment - two scientific challenges. *Social Science & Medicine* 58: 1463-1473.
- Siegrist J, Pollack CE, Knesebeck O v.d. (2004) Social productivity and well-being of older people: a sociological exploration. *Social Theory & Health* 2: 1-17.
- 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.
- Siegrist J (2005) Social reciprocity and health: new scientific evidence and policy implications. *Psychoneuroendocrinology* 30:1033-1038.
- Siegrist J, Wahrendorf M (2009) Participation in socially productive activities and quality of life in early old age; findings from SHARE. *Journal of European Social Policy* 19:317- 326.
- Huppert FA, Marks N, Clark A, Siegrist J, Stutzer A, Vitterso J, Wahrendorf M (2009) Measuring well-being across Europe: description of the ESS well-being module and preliminary findings. *Social Indicators Research* 91:301-315.
- Wahrendorf M, Ribet C, Zins M, Goldberg M, Siegrist J (2010) Perceived reciprocity in social exchange and health functioning in early old age: Prospective findings from the GAZEL study. *Aging & Mental Health* (in press).

Curriculum vitae (continued)

Co-applicant 3 (if applicable):

Carmelo Vázquez (Ph.D.), Professor of Psychopathology, Complutense University of Madrid, was a Postdoctoral Fulbright Visiting Scholar at Northwestern University (Evanston, Illinois). Over the past twenty years he has conducted research on cognitive and emotional factors in psychopathology (Psychological Bulletin, Journal of Personality and Social Psychology, Clinical Psychology Review, etc.). From 1992 to 1997 served as Associate Editor of the British Journal of Clinical Psychology. In 1997 he received the European Association of Psychological Assessment (EAPA) "Annual Award for Early Distinguished Scientific or Professional Contribution to Psychological Assessment".

Professor Vazquez lead European Union-funded research (Poverty 3 Program, 1995-1999) on epidemiology of mental disorders in social exclusion. His expertise includes psychological processes in affective disorders, and positive emotions and well-being in the context of psychological and social adversities. He is currently a member of the editorial board of several national and international journals. Professor Vázquez is also a national representative of the European Network for Positive Psychology (ENPP), president of the Spanish Society of Positive Psychology, Secretary of the International Positive Psychology Association (IPPA) and has been coordinating the Spanish version of the Positive Psychology Website led by Martin Seligman (www.authentic happiness.org) where on-line well-being questionnaires have been adapted in several languages.

Selected references include:

Avia, M.D. & Vázquez, C. (1997). Optimismo Inteligente [Intelligent Optimism. With a Foreword by Martin E. P. Seligman]. Madrid: Alianza Editorial.

Vázquez, C., Cervellón, P., Pérez Sales, P., Vidales, D. y Gaborit, M. (2005). Positive emotions in earthquake survivors in El Salvador (2001). *Journal of Anxiety Disorders*, 19, 313-328.

Pérez-Sales, P. y Vázquez, C. (2007). Planning needs and services after collective trauma: should we look for the symptoms of PTSD? *Intervention: International Journal of Mental Health, Psychosocial Work and Counselling in Areas of Armed Conflict*, 5, 27-40.

Vázquez, C., Pérez-Sales, P., & Hervás, G. (2008). Positive effects of Terrorism and Posttraumatic Growth: An Individual and Community Perspective. In A. Linley and S. Joseph (Eds.), *Trauma, Recovery, and Growth: Positive Psychological Perspectives on Posttraumatic Stress* (pp. 63-91). New York: Lawrence Erlbaum Associates.

Vázquez, C., & Hervás, G. (2008). (Eds.), *Psicología Positiva Aplicada [Applied Positive Psychology]*. Bilbao, Spain: Desclee.

Vázquez, C., Hervás, G. y Pérez-Sales (2008). Chronic thought suppression as a vulnerability factor to posttraumatic symptoms: data from the Madrid March 11, 2004 terrorist attack. *Journal of Anxiety Disorders*, 22, 1326-1336

Vázquez, C., & Hervás, G. (2009). (Eds.), *El Estudio científico del bienestar: Fundamentos para una Psicología Positiva [The scientific study of well-being: Fundamentals of Positive Psychology]*. Madrid: Alianza Editorial, 2009.

Vázquez, C. y Páez, D. (2010). Posttraumatic growth in Spain. In T. Weiss & Berger, R. (eds.), *Posttraumatic Growth and Culturally Competent Practice: Lessons Learned from Around the Globe*. New York: Wiley.

Vázquez, C. y Hervás, G. (2010, in press). Terrorist attacks and benefit finding: The role of positive and negative emotions. *Journal of Positive Psychology*.

Vázquez, C., Hervás, G., Rahona, J.J. & Gómez, D. (2010, in press). Psychological well-being and health: Contributions from Positive Psychology. *Annuary of Clinical and Health Psychology*

Curriculum vitae (continued)

Co-applicant 4 (if applicable):

Joar Vittersø is Professor of Psychology in the Department of Psychology at the University of Tromsø, Norway. He received his Ph.D. from the University of Oslo in 1998. Dr. Vittersø is research advisor on well-being issues to the Gallup Institute in Washington DC, a former Vice President for Academic Affairs for the International Society of Quality of Life Studies, a current board member for the International Positive Psychology Association, a board member of the Social Indicators Research and is representing Norway in the European Network for Positive Psychology and in the International Wellbeing Group.

Professor Vittersø's expertise includes positive emotions, personal growth, conceptual issues in happiness research, cultural studies of subjective well-being and psychometric research. He is the author of numerous articles in professional journals.

Recent references include:

Vittersø, J. (in press). Functional Well-Being: Happiness as Feelings, Evaluations, and Functioning. Book chapter to appear in I. Boniwell & S. David (Eds.) *Oxford Handbook of Happiness*. (Oxford University Press).

Biswas-Diener, R., Vittersø, J. & Diener, E. (2010). The Danish Effect. Beginning to Explain high Well-Being in Denmark. *Social Indicators Research*, 97, 229-246.

Vittersø, J., Søholt, Y., Hetland, A., Thoresen, I. A., & Røysamb, E. (2010). Was Hercules happy? Some Answers from a Functional Model of Human Well-Being. *Social Indicators Research*, 95, 1-18.

Vittersø, J., Overwien, P., & Martinsen, E. (2009). Pleasure and Interest are Differentially Affected by Replaying versus Analyzing a Happy Life Moment. *Journal of Positive Psychology*, 4, 14-20.

Vittersø, J., Öhlman, H. I. & Wang, A. L. (2009). Life Satisfaction is not a Balanced Estimator of the Good Life: Evidence from Reaction Time Measures and Self-Reported Emotions. *Journal of Happiness Studies*, 10, 1-17.

Vittersø, J. (2009). Hedonics. In S.H. Lopez (Ed.). *Encyclopedia of Positive Psychology* (pp. 473-478). Malden, MA: Wiley-Blackwell.

Module proposal – for REPEAT Modules

This should be in 4 parts. Please ensure that each of the parts described below are addressed in the following pages. You may use as many pages as necessary but please keep to the word limits.

PART 1: Theory behind proposed module (max 6000 words)

PART 1 should be theory and evidence driven, demonstrating the team's expertise in the topic (citing relevant literature, past studies and publications in the field). It should explain the relevance of the topic to key academic or policy concerns within the European arena. It should also outline the conceptual framework of the proposed module relating this to the design of the previous ESS module on this topic, noting and explaining differences. Evidence of the relevance of data from the previous module should be included, as well as a summary of salient findings and examples of applicants' engagement with the data.

PART 2: Advantages & Disadvantages of the timing of the module (max 1000 words)

PART 2 should outline the advantages and disadvantages of running the repeat module at this juncture rather than later in the ESS cycle.

PART 3: Proposed module design (max 3000 words)

PART 3 should outline which concepts and dimensions (including specific items from the previous module) are provisionally earmarked to be repeated and the reasons for these choices. Evidence of the measurement quality of these items cross-nationally should be included. The measurement objectives of new items or dimensions should be outlined, together with plans of how to operationalise them. Drafts of any proposed new questions should NOT be included in this section. However, applicants who plan to base all or many of their new questions on ones that have been fielded in previous national or multinational surveys, should include those questions, describe their origins, and outline any likely problems of transplantation. In any event applicants should note that all items will be subject to further detailed assessment and possible amendment before being adopted.

PART 4: Methodological or Practical difficulties (max 2000 words)

PART 4 should reflect on any methodological or practical difficulties envisaged in bringing the ideas to fruition in the ESS. Examples, if any, should be given of any difficulties encountered in using data from the prior module. Thought should also be given to the geographic expansion in the spread of the ESS since the prior module was fielded and any added problems this may cause in terms of translation and equivalence. Teams should comment on how such methodological issues would be handled, reflect on whether they would be addressed during the developmental and / or main stages and discuss how they might contribute to the field and / or survey research in general.

PART 1 - Theory behind proposed module

Introduction

An explicit aim of the European Union is to evaluate the success of European countries at promoting the well-being of their citizens. We argued in our original application, that there should therefore be systematic and detailed well-being accounts for all nations within the EU. Such accounts are required to compare and contrast the effects of different political and social policies and contexts on the levels of well-being experienced by citizens. These predominantly subjective well-being indicators would complement existing objective measures such as socio-economic indicators, which currently provide the most common methods for measuring progress. The dominance of indicators such as GDP was based on the long-held assumption that economic prosperity would bring happiness, but it has been known for some time that this assumption is no longer viable. There is a relationship at low levels of income, but the marginal utility of increasing income in developed countries is small or negligible (Easterlin, 2003; Layard, 2005).

The resulting need to rethink how to measure progress and better understand the determinants of well-being was a driving force behind the original Well-being Module included in ESS Round 3 ('the Well-being Module'). Clearly, we need to measure people's experience of their lives, and not just the objective facts about their lives, such as income or GDP.

Collecting repeat data on the items included in the Well-being Module is a core part of the effort to create a set of national well-being accounts. For these to be effective and useful, they must involve regular measurement so that the levels of different measures can be tracked over time. Repeating the module therefore forms a critical part of the objective to use ESS data to demonstrate the feasibility and usefulness of this sort of approach. European and national statistics offices are becoming more interested in this field and some are starting to collect some data. However, it is clear that there is still some way to go before they are collecting the type of data required to provide a full picture.

Why does well-being matter?

The idea that well-being is a valuable end in itself seems irrefutable. There can be few nations which would not wish their citizens and communities to flourish. But beyond this general ideology, there are sound practical reasons for prioritising and promoting well-being. The evidence from large national and cross-national surveys shows that individuals with higher well-being as indicated by measures of happiness or life satisfaction, tend to be more productive, have higher incomes, more stable marriages, and better health and life expectancy (Diener, 2000; Judge et al, 2001). These cross-sectional associations are supported by longitudinal evidence. For instance, a meta-analysis by Chida & Steptoe (2008) showed that positive feelings or attitudes at one point in the life course were associated with increased health and longevity later in life. A range of experimental research further confirms that higher levels of well-being or positive emotions produce a range of beneficial outcomes including a broader focus of attention and more creative thinking (Fredrickson & Branigan, 2005), more tolerance and generosity towards others (Forgas, 2002), a healthier physiological response to stress (Fredrickson et al, 2000), reduced likelihood of developing a cold when a common cold virus is introduced into the nostrils (Cohen et al, 2003) and a better immune response to the influenza vaccine (Davidson et al, 2003). Taken together, the evidence shows that well-being or positive emotions lead to positive behaviours, increased cognitive capability and health, and that positive behaviours,

capabilities and health in turn fuel well-being and positive emotions. Well-being therefore matters as an outcome in its own right, as well as in light of its benefits for individuals and society.

Team behind the module

The five co-applicants represent a strong team of leading experts in the field of well-being research, with four having worked together as members of the QDT of the Round 3 Well-being Module.

Professor Felicia Huppert is Director of the Well-being Institute of the University of Cambridge and co-editor of the seminal book *The Science of Well-being* (Huppert, 2005). She was the lead expert on well-being for the UK Government's Foresight Project on Mental Capital and Wellbeing and headed the consortium which developed the Well-being Module for ESS Round 3.

Nic Marks founded the award-winning Centre for Well-being at **nef** (the new economics foundation), an independent think tank, based in London. Nic has extensive experience at devising methodologies to measure well-being and communicating the findings widely including work on **nef**'s National Accounts of Well-being, Happy Planet Index and Five Ways to Well-being.

Johannes Siegrist, Professor of Medical Sociology at the University of Duesseldorf, Germany, specializes in social determinants of health where he has contributed to several international collaborative studies. He has previously developed questionnaire items measuring reciprocity in social exchange, based on his theoretical model of effort-reward imbalance.

Carmelo Vazquez, Professor of Psychopathology, at Complutense University of Madrid, led European Union-funded research on epidemiology of mental disorders in social exclusion. His expertise includes psychological processes in affective disorders, and positive emotions and well-being in the context of psychological and social adversities.

Joar Vittersø is a Professor of psychology at the University of Tromsø, Norway, and has been a well-being researcher for more than 20 years, working with measurement issues and conceptual problems in the study of happiness. He is research advisor on well-being issues to the Gallup Institute in Washington DC, a board member for the International Positive Psychology Association and has published extensively on emotions, life satisfaction and personal growth.

Conceptual Framework

Experienced or subjective well-being (SWB) has usually been conceptualised in terms of people's emotional responses (good or bad feelings) and their cognitive or evaluative responses e.g. 'satisfaction' (Kahneman et al, 1999; Diener, 1984; Veenhoven, 2000). However, as noted in our original application, this conceptualisation regards well-being as a state rather than a process (Rogers, 1961). It focuses on *having* positive feelings or evaluations, as opposed to *doing* certain things that lead to lasting pleasure or fulfilment (Vittersø, 2004). This distinction was fundamental to the development of the Well-being Module. It parallels two distinct philosophical approaches to well-being – the hedonic approach which emphasises positive feelings (Kahneman et al, 1999) versus the eudaimonic

approach which emphasises positive functioning (Keyes, 2002; Ryan & Deci, 2001; Sen 1996).

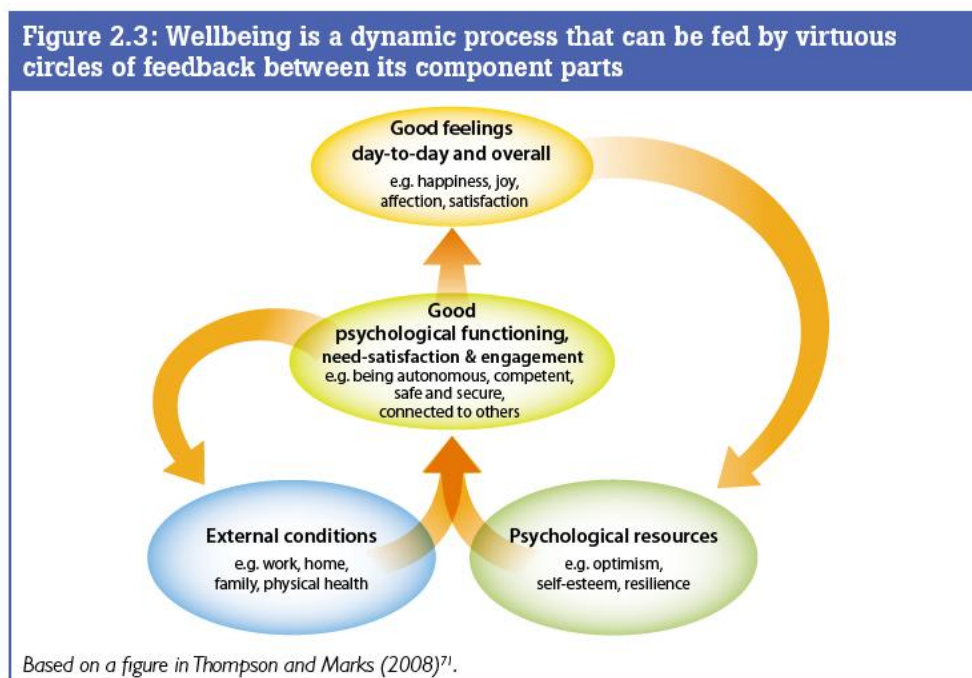
The eudaimonic approach has been operationalised in various ways, and typically includes concepts such as autonomy or self determination, interest and engagement, positive relationships, and a sense of meaning, direction or purpose in life (Ryff & Singer, 1998; Deci & Ryan, 2000; Diener et al, 2010; Seligman, 2002). Items designed to capture the range of eudaimonic concepts were included in the Well-being Module. However, in terms of theory underpinning the different conceptualisations of functioning or eudaimonic well-being, each scholar (or pair of scholars) drew on different traditions. The six well-being dimensions proposed by Ryff & Singer (autonomy, environmental mastery, personal growth, positive relations, purpose in life, self acceptance) derived from developmental psychology and psychodynamic theory. The three concepts described by Deci & Ryan (autonomy, competence, relatedness) came from the humanistic approach and the perspective of psychological 'needs'. Seligman's core concepts (pleasure, engagement, meaning) combined hedonic well-being with key aspects of Aristotle's theory and Csikszentmihalyi's work on 'flow' (1988), while Diener's conceptualization was influenced by all these earlier approaches plus the evidence that optimism is important for successful functioning and well-being (Scheier & Carver, 2003) and the work of Putnam (2000) and Helliwell et al (2009) showing that 'social capital' is basic to the well-being of societies. Indeed, the evidence on the importance of social connections to well-being (Helliwell and Putnam 2005; Diener and Seligman, 2002) led us to ensure that the Well-being Module included detailed measures of social as well as personal well-being.

While there is substantial overlap between these different conceptualizations, they are essentially idiosyncratic. Since the development and utilization of the original Well-being Module in ESS Round 3, work has been undertaken to bring together competing accounts of well-being into a coherent model, with particular emphasis on its relevance to policy. In 2008, the UK Government Office for Science published the results of its Foresight Project on Mental Capital and Wellbeing (Government Office of Science, 2008). The project aimed to use the best available scientific and other evidence to develop a vision for mental capital and mental well-being over the next 20 years. As part of this project, **nef** examined the definitions of well-being used by policy makers and compared them to the taxonomy of well-being models developed by Dolan et al (2006), who produced five categories of models: 1) preference satisfaction; 2) basic needs²; 3) flourishing; 4) hedonic; and 5) evaluative. Rather than seeing these models in competition with each other to describe a static construct, the **nef** model viewed the various approaches as describing different aspects or stages of a *dynamic process* (Thompson and Marks, 2008).

In this model, functioning well (eudaimonic well-being) results from a combination of enabling conditions and psychological resources. Enabling conditions include opportunities and obstacles, inequalities, social norms and culture, while psychological resources include such characteristics as resilience, optimism and self-esteem. In turn, functioning well feeds back into enabling conditions and determines one's experience of and cognitive judgments about life (e.g. happiness, satisfaction, interest, boredom and distress), and experience of life in turn feeds back into psychological resources (see Figure 1). The value of this dynamic model is that it generates clear hypotheses and predictions about the way in which relevant concepts are linked, and particularly about how change in relevant variables will influence and be influenced by well-being.

² Dolan *et al* (2006a) call this category "Objective lists", although also use the term "basic needs" interchangeably.

Figure 1: The dynamic model of well-being (Foresight, 2008)



Because of the inclusive nature of this model, and its policy relevance, we propose to use it as the primary conceptual framework to inform the design of the repeat Well-being Module. The model can be seen as accounting better for some of the items which were previously conceptualized according to the feelings-functionings duality in the structure of the module (Huppert and Marks, 2007). For example, optimism and self-esteem, previously described as sitting with feelings, are better described as aspects of cognitive style and personality, rather than experiences or affect, and therefore can be seen as sitting more coherently with the psychological resources element of the dynamic model.

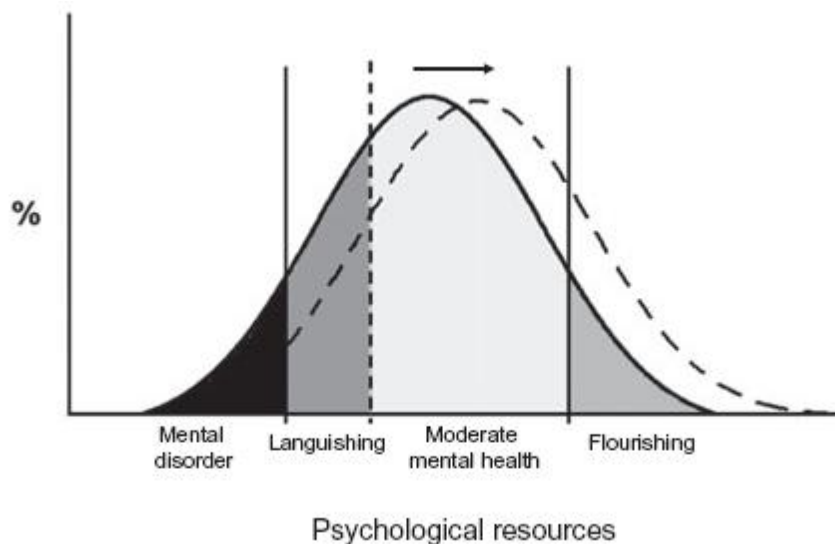
However, our intention is not to use this model to the exclusion of all others. It is primarily a description of individual well-being, and while this includes social connections as a core part of its 'functioning' element, it does not give as much emphasis to social well-being as the Well-being Module was designed to do and which we intended to retain. The distinction between personal and social well-being will therefore remain a core part of the module.

We see it as a key strength of the module that it can be used to operationalise and test a number of different models of well-being. Another initiative to conceptualise well-being in a less idiosyncratic, more objective manner stems from a second theoretical model adopted in the Foresight Report, which proposes that well-being can be described as a bell-shaped spectrum from very low (corresponding to common mental disorder such as anxiety or depression) to very high (mental 'flourishing'), with most people having moderate levels of well-being. Huppert (2009) has used this model to suggest that 'that the way to reduce the prevalence of common mental disorder in the long term is to intervene at the general population level' to improve levels of well-being (see Figure 2).

Using this model, Huppert and So (2009) developed an operational definition of flourishing by examining how academics and clinicians had defined the lower end of the mental health or well-being spectrum but taking the opposite pole. The resulting definition of flourishing led to the creation of a psychological flourishing scale, using a number of items from the Well-being Module. They then established the prevalence of flourishing across Europe and the

factors associated with it. This analysis was presented to an OECD meeting in 2009 (Huppert & So, 2009) and will shortly be submitted for publication.

Figure 2: The effect of shifting the mean of the mental health spectrum (Huppert, 2009)



Is well-being more than life satisfaction?

The vast majority of surveys continue to use single-item measures of happiness or life satisfaction as their sole indicator of subjective well-being. This is entirely legitimate and undoubtedly cost effective if a single item can capture the essence of the concept. However, there are several reasons why we argue that this is not the case. First, deciding on how satisfied one is with one's life requires a complex integration of experience and expectations. A high score on a life satisfaction measure can be obtained if an individual generally has a sense that life is going well, or if life is not going particularly well but they have low expectations. This is a particular problem if such a measure is to be used to evaluate the success of a policy, since it is unclear whether change in this measure reflects a change in experience or a change in expectations.

Another concern relates to the "pleasantness bias" of life satisfaction measures. A number of studies have demonstrated that the most commonly used indicators of satisfaction and happiness are quite insensitive to important life processes. For example, they do not capture processes involved in the realization of important life projects and the engagement in long term goals and challenging activities. By contrast, life satisfaction measures are both predictive of and responsive to more passive activities and to episodes characterized by routine and familiarity (see Vittersø, in press; Vittersø, et al., 2010, for overviews). We have therefore argued that more direct measures of experience are required and a number of these were included in the Round 3 Well-being Module.

On the other hand, if more direct measures of well-being are very highly correlated with scores on a life satisfaction item, then one could argue that for many purposes a life satisfaction item is sufficient. In an OECD briefing document (Huppert & So, 2009) an operationally defined measure of flourishing correlated only 0.3 with scores on the life satisfaction measure from the core ESS. However, one third of the flourishing group did not obtain a high score on life satisfaction and half of those with high life satisfaction did not meet criteria for flourishing. To the extent that the flourishing measure is a good way to conceptualise subjective well-being, a single item about life satisfaction is not an adequate substitute. We conclude that national indicators of well-being need to go beyond a simple measure of life satisfaction.

Since our initial application for a Well-being Module, recognition of the importance of a more nuanced measure of well-being has become more widespread. The Warwick-Edinburgh Mental Well-being Scale - WEMWBS (Tennant et al, 2007) is a 14-item scale designed to measure both hedonic and eudaimonic aspects of positive mental well-being. It has been used in population surveys, Scotland, the North West of England and Iceland (Bartram *et al.*, 2010; Deacon *et al.*, 2010; Stewart-Brown and Janmohamed, 2008) and has been recommended for use by the US National Institutes of Health. It enquires about how people have been feeling and functioning over the past two weeks, and a single total score is obtained. A 7-item version of the scale (the Short Warwick-Edinburgh Mental Well-being Scale - SWEMWBS) has been shown to have good psychometric properties as a measure of a single well-being factor (Stewart-Brown et al, 2009). While the overall approach taken in the module is deliberately multi-dimensional, there are strong reasons for wanting to include this short uni-dimensional scale within the module in order to compare the two approaches. We therefore propose to include this measure, but believe that it needs to be supplemented, both to establish the prevalence of general well-being (as opposed to recent well-being) and to be able to examine the subcomponents of well-being in more detail.

Interestingly, Diener whose 5-item Satisfaction With Life Scale (SWILS - Diener et al, 1985) has been very widely used in survey research, has recently developed an 8-item measure of general flourishing which looks very promising, although it has so far been administered only to student samples. Keyes has also recently produced a short form of the Mental Health Continuum (MHC-SF) which measures dimensions of emotional well-being, psychological well-being and social well-being, using single items from each dimension in the long form of the scale (Keyes, 2009). We will use these scales as reference points when designing new items for the module.

From personal to social well-being

The recognition that the way in which an individual relates to others and to their society is a key aspect of their subjective well-being led us to conceptualise and measure social well-being in the original Well-being Module. We considered social well-being to include both interpersonal and societal-level experiences and behaviours. The literature has emphasized the centrality of social support for good interpersonal relationships, but more recent work has highlighted the importance of supporting others. For instance Brown et al (2003) found that helping others was more beneficial for health than receiving help, and Dunn et al (2008) showed in an experimental study that spending money on others led to greater well-being than spending money on oneself. Social policy has begun to recognize and utilize the well-being benefits of giving or doing things for others through encouraging a greater role for the voluntary sector in service delivery and increased community engagement.

Societal level well-being is important due to effects of experienced social well-being on individual well-being, and because perceptions of societal well-being act as indicators of the well-being of the society. It may be difficult for a society to flourish if its members do not have high levels of well-being, but a society might not flourish even if most of its members display high levels of personal well-being, e.g. because of its attitude towards minority groups. Research on social capital tends to use objective measures of social connectedness and shows that average levels are linked to happiness and satisfaction, health and productivity (Putnam, 2000; Helliwell & Putnam, 2005). We make a case for including additional subjective measures of social capital, including both bonding ('thick' ties to individuals you know well) and bridging capital ('thin' ties to people and organizations with whom one comes into contact). A portion of the proposed repeat module would be devoted to augmenting

societal level measures. Halpern (2010) describes social capital as “the hidden wealth of nations” and advocates the importance of strengthening social prosperity. Refining the measures of social well-being in the ESS is a valuable step towards this goal.

Relevance to policy concerns

Politicians and policy makers need to know not only about the objective facts of citizens' lives but also about how citizens experience their lives. This is now widely acknowledged by a number of cross-national initiatives, as well as by national governments of a number of European countries. We argue that whether people feel happy or satisfied with their lives may be important, but it is not enough for this agenda. Crucial from the perspective of policy, is how effectively people are functioning in their daily lives, since it is effective functioning which leads to sustainable rather than transient happiness or satisfaction.

The growth in policy interest in this area since the Well-being Module was first fielded has been considerable. In 2007, six international and supranational organisations affirmed in the 'Istanbul Declaration' their commitment to measuring and fostering the progress of societies in all dimensions, with the ultimate goal of improving policy making, democracy and citizens' well-being. In a related initiative, one of the signatories, the inter-governmental Organisation for Economic Co-operation and Development (OECD) launched its Global Project on Measuring the Progress of Societies. Aiming to foster the development of sets of key indicators which show how the well-being of a society is evolving, the Project has involved major international conferences and the development of Wiki-Progress, an online platform to act as the focal point for initiatives to measure societal progress. Data from the Well-being Module was presented at the Third OECD World Forum in Korea. A meeting jointly hosted by OECD and the International Society for Quality of Life Studies in July 2009 brought together the chief statisticians, policy makers and experts from OECD member countries to discuss the use of subjective well-being measures by national statistical offices.

There has also been interest in this agenda at EU level where the Beyond GDP International Initiative has emerged, stemming from a high-level conference in November 2007, with the objectives of 'clarifying which indices are most appropriate to measure progress, and how these can best be integrated into the decision-making process and taken up by public debate.' A direct outcome of the Beyond GDP conference was the 2009 European Commission Communication 'GDP and beyond: Measuring progress in a changing world' which outlines an EU roadmap with five key actions to improve indicators of progress. This states the need to improve quality of life indicators and notes that:

'social sciences are developing increasingly robust direct measurements of quality of life and well-being and these "outcome" indicators could be a useful complement to the "input" indicators' on factors such as 'income, public services, health, leisure, wealth, mobility and a clean environment' (European Commission, 2009).

In 2007, Eurostat (the European Statistical Agency) commissioned a consortium of four organisations, led by IDEA Consult in Brussels and including nef, to conduct a feasibility study for well-being indicators to include in the European Sustainable Development Indicator set. In the first instance, the project was pragmatically driven, seeking indicators for which data was already available within Europe. The emerging framework identifies a single headline outcome indicator (satisfaction adjusted life years) which is calculated using data on life expectancy at birth and subjective life satisfaction from surveys. It then proposes 50 indicators within ten domains, informed by needs theories (including Maslow's theory of needs and self-determination theory), with a mix of subjective and objective indicators.

Several of the subjective indicators recommended are currently best available from Round 3 of the European Social Survey. Eurostat has endorsed the recommended set of indicators and is carrying out various steps to ensure that they are able to include them in their official statistics, including engaging with SILC (Survey of Individual Living Conditions) to include required items in future waves.

Within individual countries there has also been considerable policy and politician-led activity within individual countries. In Hungary, the Office of the Parliamentary Commissioner for Future Generations is investigating well-being measurement as part of its exploration of sustainability indicators. The Luxembourg High Council on Sustainable Development together with the Economic and Social Council of Luxembourg is working on the development of indicators of well-being to complement GDP. In the UK, the Department for the Environment, Food and Rural Affairs began publishing national well-being indicators as part of its sustainable development indicator set in 2007, and 2009 saw the establishment of an All-Party Parliamentary Group on Wellbeing Economics whose aims include encouraging the adoption of well-being indicators as complimentary measures of progress to GDP. The Welsh Assembly Government has recently agreed to include well-being measures as part of their five headline indicators of sustainable development. However the most influential country-led initiative in this area was the decision of President Sarkozy of France to recruit Nobel-prize winning economists Joseph Stiglitz and Amartya Sen to lead a Commission on the Measurement of Economic Performance and Social Progress, which examined issues relating to classical GDP, quality of life and sustainable development and environment. Its recommendations, published in 2009, included the key message that 'the time is ripe for our measurement system to *shift emphasis from measuring economic production to measuring people's well-being*'. In particular, they state that '*Measures of both objective and subjective well-being provide key information about people's quality of life. Statistical offices should incorporate questions to capture people's life evaluations, hedonic experiences and priorities in their own survey*' (Stiglitz et al, 2009). President Sarkozy endorsed the findings and asked France's national statistics body to update its methods in accordance with the report and stated his aim to persuade other countries to follow suit, saying that "France will put this report on the agenda of all international meetings".

There have also a number of recent explorations in books and papers by leading academics into the value of well-being data in policy making. Diener and colleagues' *Well-Being for Public Policy* (2009) examines the desirability of well-being as a guide for policy, examines the contributions of well-being measures in complementing economic and social indicators and examines how well-being measures could be helpful to policy makers in different fields. The volume edited by Alan Kreuger, *Measuring the Subjective Well-Being of Nations: National Accounts of Time Use and Well-Being* (2009), examines the potential of a method of 'national time accounting' as a way of measuring subjective well-being at population level. In *The Politics of Happiness* (2010), former Harvard President Derek Bok examines the policy implications of well-being research for a number of different policy areas. And a paper co-authored by the Co-ordinator of the ESS makes the case for the 'inclusion of indicators based on citizens' perceptions of aspects of their lives and societies' in internationally compiled sets of statistics, and highlights the ESS as a key source of such data (Jowell and Eva, 2009).

This burgeoning attention from the policy (and academic) community suggests that there is likely to be an enthusiastic audience for a dataset which would allow subjective well-being to be examined in all participating Round 6 countries and for detailed analysis of changes over time in population well-being in over 20 European countries to be examined. This will allow,

through comparison of country-level differences, the question of the links between policy decisions and changes in well-being outcomes to begin to be addressed. This is a crucial question for the field of well-being research and one to which a repeat of the well-being module offers a unique opportunity to provide some answers.

Progress towards national accounts of well-being

In January 2009, in accordance with the Round 3 QDT's stated aim of using the well-being data to create a set of national well-being accounts, **nef** published *National Accounts of Well-being: bringing real wealth onto the balance sheet* (Michaelson et al, 2009). The report introduced a measurement framework based on a number of constituent components of well-being, using composites of ESS items. The components – emotional well-being, satisfying life, vitality, resilience and self-esteem, positive functioning, supportive relationships and trust and belonging – were broadly related to the different elements of the dynamic model of well-being. They were aggregated into two headline indicators of personal and social well-being, reflecting a key element of the structure of the Round 3 module. The component and headline indicators were used to compare levels of well-being across Round 3 participating countries.³ In addition to publication of the report, the data were also made available on a fully interactive website, www.nationalaccountsofwellbeing.org, where members of the public can explore particular indicators across Europe, look at a graphically presented 'Well-being Profile' for all component indicators within a country, and compare levels of well-being indicators with a range of other indicators.

The report and website were published to widespread media attention in the UK and abroad and acclaim from leading experts in the field. Professor Daniel Kahneman who said that the report “presents the state of the art in the measurement of the well-being of nations” while Professor Richard Easterlin said “This report is an important step forward in suggesting measures that may prove more valuable than GDP as a guide to policies aimed at human betterment”. The report has also gained attention from policy-makers and politicians across Europe. For example, some of its results were reproduced in a high profile report by the UK government's independent watchdog on sustainable development, *Prosperity Without Growth?* (Jackson, 2009). In addition, the EU's Committee of the Regions cited National Accounts of Well-being while highlighting the need to obtain a “full picture of quality of life and well-being, including the wider societal and environmental contexts within which people live” in its ‘Opinion on the Future of the Lisbon Strategy’ (European Union, 2009). This aim of repeating the Well-being Module is a key plank in taking forward our work on National Accounts of Well-being, in order to demonstrate the benefits of being able to measure change in well-being levels in different countries and tie this to changes in policy at national level.

Evidence-based policy relevant well-being promoting activities

The Foresight Project on Mental Capital and Wellbeing combined the expertise and advice of around 400 leading experts and stakeholders from around the world and used evidence from a range of disciplines including; economics, social sciences, ethics, neuroscience and genetics, psychology and psychiatry; systems analysis and futures analysis (Government Office for Science, 2008). Foresight commissioned **nef** to review the evidence to produce a set of evidence-based actions to improve well-being which individuals would be encouraged to build into their daily lives. The final set of actions is:

³ Russia was excluded from this analysis because it was decided to restrict the comparison to countries generally recognised as within Europe. Latvia and Romania were excluded because full weights were not produced for the data from these countries.

- Connect
- Be active
- Take notice
- Keep learning
- Give

A set of communication messages was developed for each action, which cited examples of the relevant activities to explain and illustrate the intention of each (Aked *et al.*, 2008). Since then, the Five Ways to Well-being have been widely used in the UK for their original purpose of shaping public health messaging to promote positive mental health, but also as the basis for the design of specific well-being promotion interventions in communities and schools, as well as wide-ranging initiatives including Five Ways skills training in Norfolk, eliciting residents' views on town masterplanning in Dewsbury and as a framework for a city-wide themed 'Year of Well-being' in Liverpool. The chief executive of the UK's leading mental health charity has described the Five Ways as 'the best way of explaining' what is meant by well-being⁴. The UK government's mental health framework, New Horizons, states that the Department of Health is working with other government departments to plan a public campaign based on the Five Ways (Department of Health, 2009). There are also a number of examples of the growing use of the Five Ways beyond the UK: they have been translated into Norwegian⁵, used by ATC Health in Australia as part of a mental health promotion campaign and used by New Zealand's Mental Health Foundation as part of its mental health awareness week.

The growing prevalence of the Five Ways suggest that it is often useful for policy makers, mental health practitioners, and members of the public, to conceptualise well-being in terms of the activities which promote it, as well as, or in some cases, instead of the elements which comprise well-being (what is measured by existing items in the module). Of particular interest is the question of the extent to which participation in these activities varies cross-nationally, and whether any evidence can be found linking this variation to differences in cultural and societal norms, values and structures. There are also a number of unanswered research questions about the extent to which measures of participation in the Five Ways actions correlate with these more direct measures of subjective well-being in population surveys in different countries. Strong evidence of positive correlations, which is what would be expected given the process of the development of the Five Ways from activities for which there was evidence of a link to subjective well-being, would further help to bolster academic and policy focus on the issue of the ways in which people can be helped to build these sorts of activities into their daily lives.

Summary of key findings

While a number of key findings from Well-being Module data have already been mentioned above, we draw together here the results from key analyses of the data, many of which have been carried out by the current applicants.

The six members of the Round 3 module QDT, including the four repeat applicants, were co-authors of a paper outlining its preliminary findings (Huppert *et al.*, 2008). The paper

⁴ Paul Farmer, Chief Executive of Mind, made this comment in his closing remarks of Mind's national conference in November 2009.

⁵ See <http://www.nrk.no/programmer/tv/puls/1.6940937>

demonstrated a four-fold difference between the highest and lowest rates of depression in 23 participating countries and showed an association between depression and low positive affect in some but not all countries, confirming the previously reported finding of the relative independence of positive and negative affect (Diener et al., 1999). It also showed substantial differences between countries on measures of feeling and functioning. Gender and age group differences were described for the measures studied. Analysis by Bracke and colleagues established factorial invariance of the CES-D items included in the module across gender and countries, and therefore indicate the good reliability and validity of using the items to compare mean differences in depression of men and women across countries (Bracke et al 2008).

The factor structure of the module was also explored in a paper presented at the 2009 International Society for Quality of Life Studies, co-authored by principle applicant, Professor Huppert (Gaderman et al, 2009). Using a split-sample approach to conduct exploratory and then confirmatory factor analyses produced a model of 20 items pertaining to five domains: positive affect, negative affect, satisfaction with life, personal functioning, and interpersonal feelings, each forming a subscale with adequate reliability. The results suggest the benefits of an approach which combining items from the module into subscales for analytic purposes. A briefing paper also co-authored by Professor Huppert used the module data to develop a psychological flourishing scale (Huppert & So, 2009). It was striking that using this definition, 40% of Danes were flourishing, compared to a quarter of people in the UK, Sweden and Norway, down to only 8% in Russia and Slovakia. Health and socio-demographic factors at both individual and national level accounted for only a small proportion of this variance in well-being, but social capital was more predictive.

Analysis using the National Accounts of Well-being indicators, co-authored by co-applicant Nic Marks (Michaelson et al, 2009), found a moderate correlation of personal and social well-being at country level, but showed the different relationships of these two headline indicators of well-being to demographic factors (age) and region of Europe. Examination of the different component indicators of well-being showed considerable contrast in the range and ordering of country scores between different indicators, and demonstrated the independence of scores on different components, for examples those relating to thick and thin relationships. Looking across scores on all seven well-being component indicators for each country revealed some regional patterns, with similarities between the Nordic countries, as well as variation in patterns between countries with similar scores on headline personal well-being. Regression analysis showed that some objective factors had different relationships with different components of well-being. For example, spending more time watching television was associated with decreased scores for 'satisfying life', 'vitality', 'functioning' and 'trust and belonging' components, but not for 'emotional well-being', 'resilience' or 'supportive relationships'.

An analysis of Well-being Module and core ESS items found that the relationships between life satisfaction and measures of civic engagement (formal volunteering and attending local activities) and socialising vary by gender and parental status (Kroll, 2009). The paper found that childless women had the most positive association between life satisfaction and civic engagement, 'while there is a weak and slightly negative association among mothers' suggesting a 'motherhood penalty in terms of the psychological benefits associated with volunteering.' An analysis using measures of giving from ESS Round 3, co-authored by the principle applicant, confirmed the strong association between volunteering (formal or informal) and both hedonic and eudaimonic well-being. Cross-national variations in volunteering showed the largest differences of any item in the Well-being Module (Plagnol and Huppert, 2010).

PART 2: Advantages & Disadvantages of the timing of the module

Policy and academic developments relating to well-being measurement, as well as macroeconomic events since the well-being module was last included in the ESS in 2006/7, create a strong case to repeat the module in Round 6 rather than delaying to a later round.

A key advantage of running the repeat module in Round 6 relates to the growing policy interest across Europe in alternative measures of progress in general and well-being measurement in particular, as described in Part 1. This has created a growing momentum in this area, providing a context in which a repeat well-being module dataset would represent a crucial resource. Indeed the recent Eurostat project reviewing existing well-being indicators rated the Well-being Module highly in general, but it scored poorly on availability of time series data (IDEA Consult and **nef**, 2010). By allowing analysis of changes in population well-being over time, measured cross-nationally through a multi-dimensional framework, the links between national policy decisions and the well-being of citizens can begin to be explored. It is precisely these 'repeated measurements that will begin to allow the specific effects of policy decisions on the different aspects of well-being to be examined' (Michaelson et al, 2009), answering the call that 'the world needs systematic measures of well-being to inform the decisions of our leaders and citizens' (Diener et al, 2009). This sort of analysis would therefore secure the status of well-being measurement as an important part of the policy-making process.

The risk with a delay in repeating the module is that without this sort of analysis, policy-makers will lack a policy-specific evidence base on which to ground decisions about the likely well-being outcomes of policy decisions. This may mean that they are unable to build the substantial existing evidence about the drivers of and factors promoting well-being into their processes. Ultimately, this risks allowing the current focus and interest on well-being measurement within the policy community to dissipate before a comparable dataset allowing detailed cross-sectional analysis of aspects of well-being is produced.

Even with a repeat dataset, identifying well-being outcomes of policy decisions will not be a straightforward matter. Given that the primary unit of analysis will be the set of policies at individual country level, it is to be expected that different specific policies will have different, and likely confounding, effects on well-being outcomes. In the first instance, therefore, national policies will likely be considered as a set. However, many aspects of the broad policy context (e.g. level of taxation, structure of the welfare system, type of provision of public services) may not have changed in the interval between the two measurements. This will enable more focused attention on those policy areas which have changed. Even so, in the cases of countries which have seen a major policy shift in certain areas within the measurement interval, the length of time before changes in well-being outcomes may be observed will not be certain. Therefore there is a further area of uncertainty: whether the policies being considered have changed long enough before the second measurement to result in measurable changes. It worth noting that this uncertainty is not well-being specific; in fact, it would apply to any set of repeat measures being considered for inclusion in the ESS.

Accepting the uncertainty, we believe that repeating the module in Round 6 offers the best pragmatic solution to the question of when the repeat should best happen. An interval of 6

years between measurements represents slightly longer than the electoral cycle in the majority of European countries, where national elections are held every four or five years. We would therefore expect that a national election had been held within the period between measurements in each participating country. While this is not an infallible proxy for changes in the macro-policy context, it indicates the likelihood of some changes at this level in each country over the period, and therefore the possibility of discovering linked variations in well-being. The length of an electoral cycle, or thereabouts, also represents the sort of period over which policy-makers would expect to be able to examine changes resulting from policy decisions. It therefore seems that in the absence of evidence of the required time period for change, the attempt to link changes in well-being outcomes to policy decisions is carried out for a time period of this sort of length.

Another critical factor which we would expect to be strongly linked to well-being outcomes is the economic climate. We expect that the context of the global financial crisis which began in late 2007 is likely to have affected at least some aspects of well-being in all participating countries. However, there is reason to believe that by the time of data collection in late 2012 the worst effects of the recession will be over. The European Commission's spring 2010 economic forecast predicts that by 2011 GDP growth will reach levels that will start to close the 'sizeable output gap that opened up during the recession' and states that all EU countries apart from Greece are expected to have returned to growth by then (European Commission, 2010). This means that collecting well-being data in 2012 is likely to be a good point to attempt to measure the long-term trend in well-being overall. We would expect this to avoid too much 'noise' from the shock of the financial crisis in its measurements, but still be able to pick up variations caused by differential rates of economic recovery in different countries. Repeating the module in Round 6 will not be able to answer the question of how well-being levels changed during the worst of the crisis, but it seems of interest to measure at the likely point of recovery to investigate any lasting well-being effects.

PART 3: Proposed module design

The design of the module will remain based on many of the core principles which informed the design of the Round 3 module, and which are reflected in our current conceptual framework. It will:

- comprise high quality subjective measures of both personal and social well-being.
- measure both positive feelings and positive functioning, and in addition, the psychological resources which promote them.
- capture feelings through measures of emotional response as well as cognitive response.
- include measures of autonomy, competence, meaning and purpose and engagement in their daily activities as part of the personal positive functioning dimension.
- measure psychological resources through optimism, self-esteem, and resilience (ability to recover from setbacks).
- include social well-being measures cover both thick connections to close friends and family members, and thin connections to a broader set of people.

In addition, the module will include measures of those activities known to be well-being promoting, through self-report measures of behaviours.

In essence the module aims to measure many of the same aspects of subjective well-being as previously. The motivation behind the proposed changes to the design are:

- to improve the design of items where evidence suggests a lack of sufficient data quality, and in particular to improve the measurement of social well-being – both interpersonal and collective.
- to further investigate and improve the measurement of the 'engagement' aspect of good functioning.
- to account for developments in the field of well-being research and discourse, both in measurement of positive well-being, and drawing together of the evidence base on well-being promoting actions.
- to rebalance the measurement of domain well-being away from a detailed focus on only one life domain.

Measures to be repeated and re-designed

The following proposals for module items to be repeated and dropped have been informed by our analysis of data quality. First, we examined item non-response rates by country. Items were flagged if three countries (or more) had a non-response rate of 5 per cent or more, one of which was an EU-25 country.⁶ We also examined item frequency distributions, pooling data across all countries. A floor or ceiling effect was identified if the mode response was either the top or bottom possible response on the scale. Attention where a penultimate response was the mode, and the difference in frequencies between the penultimate and extreme options was small. (The eight Center for Epidemiological Studies Depression scale (CES-D) questions were considered together here). Finally, we generated a correlation

⁶ The latter restriction was added because there seemed some response problems restricted to non-EU 25 countries, see Part 4.

matrix for weighted items across countries, including six related questions from the core questionnaire (B24, C1-C4, C15). The intention was to consider items which intercorrelated strongly with other items, and thus make judgements about the redundancy of single items. Correlations above 0.6 were flagged (but disregarded for the CES-D items which were part of a scale).

The results of these analyses were used in conjunction with our conceptual aims to make judgements about whether to repeat existing items. Items were not necessarily dropped if they failed to meet one of the data quality thresholds described above, if other strong reasons could be found for retaining them. However, unless otherwise mentioned, items proposed to be repeated were found to meet these thresholds.

We are aware that our proposals for repeating items are tentative only. If our application is successful, we would expect not to take final decisions about which items to include before undergoing a thorough process of review, testing and development.

Note that throughout this section, items are referred to by the numbering system used in the Round 3 questionnaire. Measures proposed to be repeated are shown in bold at first mention, measures proposed not to be repeated are shown in bold italics.

Personal well-being: Feelings

Emotional aspects

The measurement of both positive and negative emotions as separate dimensions remains a core aspect of the measurement of subjective well-being because they encapsulate the core of people's experience of life. We therefore propose to repeat the CES-D measures of positive and negative affect (Radloff, 1977), **E8-E15**. These were used to successfully analyse differences in depression and positive and negative affect cross-nationally by Huppert et al. (2008); the analysis cited establishing the factorial invariance of these items cross nationally provides a further indication of their quality (Bracke et al, 2008).

We also propose to repeat items **E16, E17, E20 and E22** which provide measures of anxiety and of the extent of vitality and arousal (including energy, restedness and calmness). These measures add information about the degree of arousal experienced, not just direction of affect (positive or negative), as well as extent of vitality, and thus provide a broader picture of emotional experiences. E17 showed evidence of a floor effect, but had a similar skew to the items within the CES-D set on which it was modelled – we consider this equivalent framing to be of value given the possibility of incorporating the questions into a set, and have therefore retained the item. Given the relatively large number of vitality questions, including the three mentioned here and items E10 and E9 within the CES-D measures we propose not to repeat ***E18***, which is conceptually similar to many of these items.

Cognitive aspects

In addition to the key cognitive measures of subjective well-being included in the core survey, life satisfaction (B24), we propose to keep item **E7** which measures respondents' agreement with the statement that 'life is close to how I would like it to be'. However, we propose to drop items **E31** and **E32** as they correlated highly both with each other (0.70) and with two items from the core (B24 and C1).

Personal well-being: Functioning

Individuals can be said to experience good functioning if they feel able to shape their life, feel competent in their everyday activities, find aspects of their life interesting and engaging, and have a sense of meaning in life. We therefore plan to repeat the majority of the items which directly measure these concepts. In particular:

- **Autonomy and competence:** Feeling that one has some measure of control over one's life and feeling competent in carrying out daily activities are key components of subjective well-being and have been linked to objective indicators of well-being such as health and productivity (**E23 – E25, E27**)
- **Sense of meaning and purpose:** Feeling valued, and that one's activities in life are making a contribution to a wider goal, are important elements of subjective well-being. We therefore propose to repeat **E40**. However, we plan not to repeat **E39**, because of evidence of poor data quality (a high item non-response rate). We also plan not to repeat **E28** given that its face validity is that of an aspect of personality and personal preferences, rather than an essential element of well-being.
- **Engagement and interest:** Feeling engaged and interested in the activities one undertakes is linked to the concepts of flow and intrinsic motivation, both of which have been associated with an overall sense of well-being (Csikszentmihalyi and Csikszentmihalyi, 1988; Kasser, 2002). These were previously measured by items **E19, E21 and E35**, which we have provisionally selected to be repeated, however we hope also to strengthen measurement of this concept by adding some new items (see 'New items' section). E21 showed some evidence of a floor effect, but we have decided to retain it for reasons analogous to those set out for E17.

Personal well-being: Psychological resources

Psychological resources, are an important aspect of the dynamic process which creates subjective well-being through the interaction with elements of an individual's functioning and feelings, and thus an important object of measurement. We therefore propose to repeat **E5-E6** and **E29**. We have currently flagged item **E4** for repetition, but note the presence of a similar optimism question within the SWEMWBS scale (see below). We therefore may not repeat it if evidence suggests that the two questions would elicit similar responses, despite wordings which suggest in one case a trait ('always optimistic') rather than a current state ('I've been feeling optimistic') is being measured. This is an issue that we would wish to explore further during the questionnaire design process.

In addition to optimism at individual level, social optimism relates to the extent to which people have a positive orientation towards the future of wider society which provides a useful overall measure of individual's evaluation of the state of society as a whole. Both measures of social optimism in the module showed evidence of high item non-response, but we propose to repeat item **E44** given its unique insight into the issue, and because the question wording suggests that some non-response may be due to lack of knowledge rather than lack of understanding the question. We do however propose to drop item **E42** whose item non-response rate was marginally higher.

Social well-being: thick ties

As we have described, the important contribution of close social connections to subjective well-being is emphasised strongly by the well-being literature. However the existing measures in the module which relate to thick ties with family, **E33** and **E34**, showed evidence of poor data quality. Both showed a strong ceiling effect, and E34 also displayed high item non-response. The item dealing with other thick ties, **E43**, also showed strong evidence of a ceiling effect and is also proposed to be dropped.⁷ We therefore propose to design replacement measures for these items as part of a new set of social well-being items (see below). However it is worth noting that the survey does include other existing measures of thick ties including the loneliness measure (E12) included in the set of CES-D measures (flagged above for repetition) and the core measures of frequency of social activity and having someone with whom intimate matters can be discussed (C2-C4).

Social well-being: thin ties

The social capital literature highlights the importance of the contribution to societal well-being of bridging connections. There are a number of existing measures of these concepts in the module which it will be important to repeat. This includes items measuring people's subjective experience of their relationships with the people with whom they come into contact, **E36-37**. However we propose not to repeat **E38** because of evidence of high item non-response. We also propose not to repeat **E45** because of high item non-response and the item included in the SWEMWBS set which is similar, but does not refer to the 'local area' (see below). We will also repeat a measure of involvement in voluntary and local activities, **E1**. While E1 showed a strong floor effect, this appears acceptable for a behavioural measure of an activity in which we would not expect to see participation across the population as a whole). However, we propose not to repeat measures **E2** and **E3** because of evidence of high item non-response as well as ceiling effects.

Domain well-being

In the design of the Round 3 module we included a number of measures exploring subjective evaluations of one specific domain of life, work. However, we now feel that focusing only on work as one particular life domain risks overemphasising this domain compared other important domains e.g. family, community, health, housing. The core questionnaire already a subjective indicator of another important life domain, health, and our social well-being questions will cover family and community domains. We therefore are proposing that while we repeat items **E47** and **E48**, items **E49-E55** will not be repeated. (E50 was also found to intercorrelate with E48). Because questions E48-E55 were asked only to respondents in paid work, this is the equivalent of dropping 3.5 questions. We may however consider developing a new question to measure well-being in a domain relating to material circumstances, such as housing or debt.

Other items

As well as specific items mentioned above as likely to be dropped from the module, we also propose not to repeat measures which are less central elements of subjective well-being as we have conceptualised it. These are the items which measured concepts less core to the key elements of well-being set out above: expecting help in return for help, **E41**, and frustration with television watching, **E46**. However we do currently propose to retain the item

⁷ The ceiling effect for items E34 and 43 was severe when the two adjacent extreme response options on each scale were considered, rather than a single option.

measuring undertaking physical activity, **E30**, as part of the measures of Five Ways to Well-being (see below), although we will need to make sure it fits coherently with the other measures devised for this.

Proposed new measures

The following sets out proposed sets of new measures for consideration during the questionnaire design process. However we expect that some options will need to be weighed up against each other based on considerations such as fit with conceptual framework, ability to design high quality measures, and compatibility with existing items. Therefore not all of the suggestions made here will be able to be included in the module.

A validated uni-dimensional scale of mental well-being

In Part 1 we set out strong reasons for the inclusion of the uni-dimensional SWEMWBS scale in the Module. The aim of its development was to produce a scale with a single underlying construct that encompassed a broad range of attributes associated with mental well-being (Tenant et al, 2007). Extensive development activities to produce the original WEMWBS were carried out and validation through two population surveys demonstrated evidence of uni-dimensionality, good content validity, high levels of internal consistency and reliability, with the ability to distinguish between population groups. However, Rasch analysis showed poor fit when all 14-items were included, leading to the creation of SWEMWBS, which showed strict uni-dimensionality (Stewart-Brown *et al.*, 2009).

SWEMWBS comprises the following items, framed in relation to experiences over the past two weeks:

- I've been feeling optimistic about the future
- I've been feeling useful
- I've been feeling relaxed
- I've been dealing with problems well
- I've been thinking clearly
- I've been feeling close to other people
- I've been able to make up my own mind about things.

These seven items conform to Rasch model expectations and have been shown to be largely free of item bias. A potential limitation of the scale is its more restricted face validity in respect of mental well-being, 'with most items representing aspects of psychological and eudemonic well-being, and few covering hedonic well-being or affect' (Stewart-Brown *et al.*, 2009). In addition, its recent use in a regional population survey of 18,500 respondents found some evidence of ceiling effects (Deacon *et al.*, 2010), contrary to what was seen in the Rasch analysis. Using the scale within the Module may facilitate examination of whether other Module items can be used to discriminate between high scorers on the scale, in the case that a ceiling effect is observed in ESS data. Given that the SWEMWBS questions cover many of the same dimensions of well-being as existing module items (e.g. optimism, sense of meaning, autonomy) they are also likely to help strengthen the measurement of these concepts, when each is examined in isolation.

The translation of these items is unlikely to be particularly problematic, given that they draw on many of the concepts already included within existing module items. The other key transplanted issue is likely to be the positioning of these questions relative to other items,

particularly regarding how this is likely to affect the comparability of SWEMWBS data from the module to those from other sources, and effects on similar existing module items.

Five ways to well-being

We will aim to develop a set of items to measure participation in Five Ways to Well-being type behaviours. While these were previously included as measures of functioning, they have now been reconceptualised and will be further developed into a coherent set. Two of the Five Ways to Well-being involve interpersonal/social constructs and will be covered in the existing and new items on social well-being (see below). 'Be Active' is currently assessed by one item (E30) from the repeat module but will be augmented by items derived from the EPIC-Norfolk Physical Activity Questionnaire (Wareham et al, 2002) and the Big Lottery Fund evaluation (Q5-8). 'Take Notice' items will be derived from existing mindfulness scales such as the Mindful Awareness and Attention Scale (MAAS) (Brown & Ryan, 2003) and the Cognitive and Affective Mindfulness Scale-Revised (CAMS-R) (Feldman et al, 2006). These scales cover the extent to which the individual is aware of external sensations and internal experiences, as well as their ability to focus and sustain attention rather than respond automatically or habitually as if on 'automatic pilot'. 'Keep Learning' has considerable overlap with the additional work we are proposing to do on engagement and interest (see below) and this construct will therefore be developed by items derived for this purpose.

Engagement

We suggest the inclusion of a short and coherent engagement inventory, in addition to the three items currently included (E19, E21, E35), to strengthen the measurement of this concept. In developing this inventory we will draw existing scales such as the Work Preference Inventory (Amabile et al, 1994), the Curiosity and Exploration Inventory (Kashdan et al, 2002) and the Orientation to Happiness: Engagement Subscale (Peterson et al, 2005) which measure concepts such as curiosity, problem solving, flow and exploration.

Social well-being

The original Well-being Module contained a number of questions on social well-being. Some will be retained as indicated above, others showed evidence of poor data quality. However, in the original module there was no specific attempt to differentiate between thick and thin social connections (bonding and bridging social capital) and this will be made more explicit in the repeat module. There are a number of valuable sources from which we can derive appropriate questions, including the Community Connections Index (Mancini et al, 2003), the Community Cohesion Index (Rogers, 2001) and the World Bank Social Integrated Questionnaire (see <http://go.worldbank.org/KO0QFVW770>). We will also make a clearer distinction between what the respondent receives from others and from society and what they contribute to others and society.

PART 4: Methodological or Practical difficulties

We reflect here on a number of methodological issues and practical issues, both encountered in using the data from the Round 3 Well-being Module and envisaged in repeating the module. These are:

- Question ordering
- Constructing composites
- Geographic expansion and translation.

Question ordering

Question-order effects, sometimes called 'context effects', are a well-established issue in survey design (e.g. Sigelman, 1981). Evidence suggests that the content of previous questions is used by respondents as a frame of reference when answering questions which come later (Gaskell et al, 1995). The effect is well-documented with subjective well-being items such as 'life satisfaction' which are broad general questions and susceptible to 'focussing illusions' whereby asking respondents to think about particular issues prior to the life satisfaction question will bias them to consider those issues more when answering the life satisfaction question (Schkade & Kahneman, 1998). As a result, most well-being scientists prefer to put more general questions such as life satisfaction at the beginning of a survey so as to minimise such effects (Krueger & Schkade, 2008). Surveys which have not done so, such as the Gallup World Poll, have produced quite different patterns of results (Abdallah *et al.*, 2009).

In the ESS context, the life satisfaction question itself is unlikely to change its position from core module C, so whatever broad ordering effects from earlier core question may have influenced the data from this question will be consistent across while the different rounds. The Round 3 Well-being module was positioned towards the end of the questionnaire, after another rotating module on the organisation of the life course. It therefore likely that some items in the module were subject to order effects both from the core questionnaire and rotating module. Given that it is highly likely the Well-being Module in Round 6 would sit aside a different rotating module, we will need to be aware that order effects on its items may not be consistent between the two rounds. Furthermore, our proposed module design involves a number of changes to items in the module, which is likely to change the order effects of its earlier questions on later ones. In developing the survey module, we will therefore consider question ordering very carefully, making use of best practice and the evidence-base on which questions are most susceptible to such effects.

If there are sets of questions where good arguments can be made for designing the ordering in each direction, we may consider the case for including a split-sample experiment, where the relative order of the specific questions is randomised over the sample as a whole, as a means of gathering evidence as to the effect of asking one before the other (or others) and vice versa. The benefit of the insights gained from this sort of experiment to future well-being research would have to be weighed against the reduction in comparability in the resulting data from the items, although the results of such an experiment may make it possible to derive a correction factor for any differences discovered.

Constructing composites

In order to fulfil our aim of using the data from the Well-being Module to create national well-being accounts which are of interest and accessible to non-academics, including policy makers, politicians and the public, there needs to be some way of synthesising data from the

different questions in the module. Creating scales from multiple items is of course a standard procedure within a psychometric approach to measuring well-being. For example Rosenberg's Self-Esteem Scale aggregates data from 10 items into a single score for self-esteem. Such an approach would be appropriate here if we believed well-being to be a uni-dimensional concept. However, as we have argued, we think there are strong grounds for believing that well-being is not uni-dimensional. Indeed, the value of this module for policy makers and the public is for it be explicitly multi-dimensional so as to identify which aspects of well-being are related to different aspects of life, and to create a textured well-being profile for countries and population groups. Data from both well-being modules, combined with theoretical frameworks of well-being, should help better understand the multi-dimensional nature of well-being, helping us understand the interrelations between well-being components and what the relevant drivers for each component are.

Standard methods for combining data using factor analysis and latent variables are therefore, with the exception, of the CES-D question set, generally not usable here. A further complication is the difference in response formats for the different items. Some items are based on 0-10 scales whereas others ask respondents to report frequency, from 'every day' to 'never'. In fact, some evidence from the factor analyses we undertook with module data suggested response codes effects in the resulting factor loadings (Michaelson et al, 2009). Novel approaches to aggregating data across several questions are needed.

In the *National Accounts of Well-Being* work, using data from the Round 3 Well-being Module, we calculated z-scores for each item. The z-scores from different items and from different countries or population groups could then be compared, and scores from different items could be averaged to calculate aggregate scores for specific components of well-being. This is all fairly standard. But z-scores are not very accessible for non-academic users, involving negative numbers (which many people are not familiar with) and with no clear maximum or minimum score. The *National Accounts of Well-Being* therefore converted these z-scores into 0-10 scales using a standard algorithm. This made the figures easier to understand, with 10 always the maximum possible score, 0 always the minimum and 5 always the mean. As there tends to be a negative skew in responses to measures of subjective well-being, with the score falling above the middle response option. This means that transformations to a 0-10 scale where 5 is set as the mean were required to be non-linear, with the scaling factor varying across the range of possible scores, thereby spreading out the majority of responses falling at the upper end of the distribution. To avoid overly distorting the patterns in the data, these transformations were carried out only once combined average z-scores for a particular population group had been calculated. While there is a risk in distorting results through this approach to transforming data, our results did not show evidence of this e.g. standard deviations in countries with higher scores were not found to be distorted upwards. Furthermore, it is worth bearing in mind that the original response scales were not necessarily interpreted as linear by respondents – they may not have regarded the points on the scales as evenly spaced.

In running the module again and aiming to produce a second set of aggregate scores we are faced with two options. Z-scores could be calculated again as is standard practice. However, this prevents comparison from year to year as each set of scores would be standardised around the mean of that year's data. Instead, we anticipate using pseudo z-scores, where the data from future well-being modules is transformed using the same function as the baseline year (i.e. round 3). In that way, the mean scores will deviate from 5, and it will be possible to look at changes in well-being over time. This is an approach which Eurostat are keen to adopt with their well-being indicator set. We therefore hope that by demonstrating its

feasibility using well-being measures from the ESS we will be establishing a precedent for the aggregation of multi-dimensional well-being indicator sets over time.

It is worth noting in this context that some of our proposed changes to the module may result in changes to a few specific items used within the indicator set. We plan to overcome the comparability issues which this raises by, if necessary, conducting comparisons via the set of indicators common to both rounds, using the resulting Round 3 transformations to transform Round 6 data, thus ensuring that Round 3 can continue to act as a baseline year.

Geographic expansion and translation

Participants in Round 4 of the ESS included a number of countries who did not participate in Round 3, and it is likely that further countries will have joined by the time Round 6 is implemented. Our experience of undertaking ESS questionnaire development and working with the resulting data, suggests that there are a number of issues related to this geographic expansion of which we will need to be aware.

Our analysis of item non-response rates by country for Round 3 Well-being Module items revealed patterns of high item non-response in a number of transition countries, particularly in Bulgaria, Estonia, Romania, the Russian Federation, and Ukraine. This may be due to a feature of the Slavic languages which many of these countries share, comparatively less experience in these countries in implementing survey research, other factors, or a combination of these. We note that two transition country participants in Round 3, Romania and Latvia, were not able to produce design weights for their data, which suggests that at least in these countries there may have been some difficulties in implementation, although both countries produced weights for Round 4 data. We suggest that in developing the Round 6 repeat module particular attention is paid to the transition countries, and other transition countries which have joined since Round 3, such as Lithuania and the Czech Republic. While this is likely to require further investigation to uncover more precisely the source of observed problems, this may involve re-translation of some of the existing Module items, as well as paying careful attention to the translation of new items, and ensuring that these countries are supported as much as possible to deal with any implementation difficulties which they encounter. We hope to be able to report on any particular issues we discover with these languages or countries as useful findings for future cross-national survey research.

Our previous experience as members of the Round 3 Module QDT highlighted the difficulties encountered in translating the word 'community' into a number of languages. While the word itself was not used in the final set of module items, and will continue to be avoided in the design of new items, we note that particular care will be needed in the translation of items involving similar concepts ('people in your local area' etc) into new languages. We also note the need to consider the new languages represented by participant countries joining since Round 3, such as Israel where Round 4 survey documentation was translated into Hebrew, Arabic and Russian. The success of this exercise in Round 4 gives us confidence that we will be able to translate Well-being Module items into these languages, although we will be alert to the need to be flexible to account for any potential difficulties posed by the Semitic languages with scripts which are not Latin or Cyrillic.

Geographic expansion has implications for the approach we have described for using Round 3 data as a baseline to produce transformations which will then be applied to Round 6 data. It means that the calculations to produce these transformations will be based on the data in

countries participating in Round 3, of necessity not including countries whose participation began in a later round. Once calculated, the transformations can of course be applied to the scores of new countries, in order to transform their data in a comparable fashion. However, if undertaking retrospective Round 3 calculations to produce transformations, we may consider removing countries which participated in Round 3 but not Round 6. Participants joining since Round 3 will of course also not be able to be included in time trend analysis between Rounds 3 and 6.

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