Well-being: What Is It?

Like many words in common use, 'well-being' is easily understood in everyday language. Probing this concept, however, is a rigorous process, and reaching consensus on an agreed definition is extremely elusive. It is therefore incumbent on any researcher or writer on the subject to define the usage of the term in their particular research or work. In this work, 'well-being' is a sustained, positive, perceived state of satisfaction with life (often described as subjective well-being or SWB), rather than short-term happiness or a simple absence of 'ill-being'. Engagement, as we shall explore further, is interlinked with the concept of well-being. This definition differs from many which define well-being in terms of its objective factors. So, for example, a well-being assessment question, 'overall satisfaction with my life in general', describes a passive variant of well-being while 'state of health as measured by...' Describes an objective concept of well-being (assuming that various health measures reflect and are components of well-being itself).

Well-being is variously defined in terms of its construct (what is felt by the person with high or low well-being), its components (what factors cause high or low well-being, for example, health) but could usefully be defined in terms of outcome objectives (why are we interested? What do we want to achieve?).

One of the confusing aspects of well-being in research and practice is that the concept is ill-defined or rather is well-defined but defined very differently in various disciplines. The definitions tend to range from notions of overall health (physical or psychological – often separated) to an assumed state of sustained contentment caused by a range of input factors such as housing, employment, health, social life and so on. It is conflated with related constructs such as quality of life, happiness, health and engagement. In organizational settings and literature, it is most commonly differentiated from 'engagement', with 'well-being'

representing mental and physical health (Utriainen et al. 2014), and 'engagement' representing work-focused energy leading to higher productivity at work (Costa et al. 2014). One of the issues is that the conception of well-being can be seen as a philosophical question to do with the observer's viewpoint (Varelius 2004), including whether well-being is an objective quality of life (that is factual and non-perceptual) or whether it is a response to situations, as perceived and experienced differently by different individuals (that is subjective response to stimuli).

Well-being is most often defined as a worthwhile outcome in its own right (in contrast with engagement, for example, which most often seen as a way of achieving valued outcomes such as productivity). However, some researchers have investigated the results of well-being, including Bryson et al. (2014), who found clear associations between well-being and workplace performance and quality but no association between short-term positive/negative work-related affect and performance.

Many definitions of well-being include assumptions on its causes or components. Michaelson et al. (2012: 6), for example, in pointing out the difference between short-term happiness and longer-term wellbeing, state that well-being includes 'happiness but also other things such as how satisfied people are with their lives as a whole and things such as autonomy (having a sense of control over your life) and purpose (having a sense of purpose in life.' So, under this definition, well-being is an aggregate of purpose, autonomy, control, satisfaction with life and happiness, whereas in fact, autonomy, control and purpose are input factors rather than components. As noted by Allin & Hand (2014: 10) 'to a large extent the definition and measurement procedure are one and the same; the specification of the way well-being is measured is also a definition of what is meant by well-being.' In this regard, it is important that any work on the subject clearly defines well-being in its context, accepting that the definition may well vary from other seemingly similar studies. For example, many studies of well-being in organizational contexts define the construct purely in terms of health and physical well-being, with 'engagement' or related constructs representing other socio-psychological aspects of quality of life.

Veenhoven (2014) describes four 'qualities of life' which would comprise an overall definition of well-being, along the dimensions of external/internal and life chances/results (Table 2.1).

• 'Live-ability' relates to the circumstances and the environment within which an individual lives: The characteristics of the environment that enable (potentially) a good quality of life. This quality is of great interest to policy makers and social reformers.

	External qualities	Internal qualities
Life chances	Live-ability of environment	Life-ability (capabilities) of the person
Life results	Usefulness of life (meaningfulness)	Satisfaction with life

Table 2.1 Internal/external factors in happiness

Source: Developed from 'qualities of life' Veenhoven (2014: 3).

- Life-ability (here described as 'capability' after Sen 1993). The individuals' own adaptive potential to deal with life's challenges and opportunities. This is a focus for therapists, psychologists and educators.
- Usefulness of life: This equates to meaningfulness in many other definitions of well-being.
- Satisfaction with life: This equates to subjective well-being or general satisfaction in the perception of the individual.

Veenhoven (2014) also deconstructs 'satisfaction-with-life' (the most common variable included in global and national well-being surveys) into four types, depending on whether they endure and whether they represent satisfaction with one aspect of life or the whole of life (Table 2.2).

- Pleasures are temporary, short-term sources of positive affect.
- Part satisfaction relates to a domain of life, for example, working life or an aspect of life, such as 'variety in life' or one's career.
- Peak experience is an intense happiness about every aspect of life. This could range from mystical ecstasy through to a drug experience! A mountaineer might experience this on conquering a major peak, for example.
- Life satisfaction (which Veenhoven (2014) is happy to conflate with happiness) is 'an overall appreciation of one's life as a whole'.

Well-being is most often defined within the following broad perspectives (Taylor 2015):

- Hedonistic or mental-state where well-being is defined as an affective state such as happiness or satisfaction with life.
- Desire-satisfaction well-being defined in terms of the degree of satisfaction of perceived or actual preferences.
- Objective which assume well-being to be the possession of various attributes such as health, autonomy, electricity and so on.
- Capabilities the wherewithal to lead a satisfactory life.

	Passing (temporary)	Enduring (long-lasting)
Part of life	Pleasure (hedonic)	Part satisfaction (eudemonic)
Life as a whole	Peak experience	Life satisfaction (hedonic and eudemonic)

Table 2.2 Temporary/long-lasting factors in happiness

Source: Developed from 'qualities of life' Veenhoven (2014: 3).

Taylor (2015) suggests that the plethora of definitions means that policy makers either have to choose a particular definition against which to measure (for example, the hedonistic satisfaction with life scale (Diener et al. 2013) or capability-based UN Human Development Index) or to adopt a mix, without worrying too much about theoretical assumptions (for example, UK Office of National Statistics). Taylor (2015) suggests that areas that appear to moderate society's well-being (however defined) are useful to measure and modify, so he sets out a range of 'markers' of well-being which are common across theories and appear useful for policy makers. However, as will be seen below, we believe the reason for confusions of definitions is that theorists are conflating causes, components and outcomes of well-being. In fact, Taylor's (2015: 77) definition of 'markers of well-being' states that they are causes (described as 'productive' of well-being). The markers recognize, but fail to resolve, this conflation of process elements:

'X is a marker of well-being if, according to all mainstream theories of well-being, either:

- 1. X is constitutive of well-being; or
- 2. X is something that can be regarded as reliably productive of well-being at the individual level; or
- 3. X is something that can be regarded as a reliable indicator of well-being, at the individual level'.

Markers, as noted by Taylor (2015), include:

- Happiness an affective temporary state, as well as a general level, but which is impacted by adaption, where people adjust to situations and return to a previous level of happiness. Of course, the capacity to adapt to situations in order to maintain a general level of happiness, may well be a personal contributing factor to well-being.
- Health physical and mental, including nutrition, optimism and so on.

- Life satisfaction a person's evaluation of their own life and its prospects, which is also subject to adaption.
- Success in realizing central life-goals, which may have involved sacrifice or challenge in their achievement.
- Supportive personal relationships, including marriage and relationships with colleagues at work, which are reflective of social aspects of well-being and likely a causal factor rather than a marker.

Other 'markers' (amenable to public policy):

- Leisure opportunity to pursue non-work interests and activities. Generally a source of pleasure and could be a subject of engagement. Active leisure correlates with subjective well-being in particular (Newman et al. 2014).
- Adequate income/resources sufficient to allow other markers such as good health and achievement of personal goals.
- Rewarding employment both material and psycho-social reward.

Income and employment may well be hygiene factors (Herzberg et al. 1959), which are 'demotivators' with a negative impact on well-being in their absence, but do not act as increasingly active motivators by their increasing presence above a certain level.

Taylor's list of markers provides a useful set of potential inputs for a process model of well-being but does not represent a definition of the construct itself.

2.1 Objective well-being

As usually defined, objective well-being is comprised of various quantifiable factors assumed or calculated to cause increases or decreases in overall well-being. Under this model, the focus is on the causal factors rather than well-being as a resultant perceived state. Thus, well-being becomes defined in terms of its own causal factors, and the measurement of well-being becomes tautological, as, by definition, levels of well-being are inevitably correlated with the presumed and defined factors. So, if a researcher decides that environmental pollution is a major factor then, in that context, well-being by definition partly comprises pollution and varies directly with that factor. For example, the Happy Planet Index (Abdallah et al. 2012) includes 'ecological footprint' as a key component of a well-being formula, which means that well-being will obviously vary by the score for ecological footprint thus demonstrating that ecological footprint is indeed a key component of well-being. The construct of objective well-being is a misnomer, as it describes the factors that are assumed to cause well-being, rather than well-being itself. Of course, investigation of objective causal factors is highly pertinent and some studies (for example, OECD 2013a) have attempted to calculate more scientifically the relative weightings of various causal factors and to assess them in terms of how they are perceived by the relevant population.

As will be seen below, numerous factors have been included in measures of objective well-being:

Objective factors have the attraction of measurability and seemingly scientific causal links (for example, linkages between 'environmental pollution' and well-being) and therefore the ability to assess with rigour and to manipulate and improve well-being by adjusting the supposed causes. There are, however, some flaws in this supposition.

- 1. There have been many studies demonstrating statistical associations between numerous objective factors and various definitions of well-being. However, there have been far less studies demonstrating the causal link between these various factors and well-being. Partly because policy makers are happy to (and have to) work from assumed causal relationships in almost every other aspect of government and management, and well-being is no different, but primarily because it is difficult to carry out the longitudinal studies necessary to demonstrate causal links as opposed to simple association or correlation.
- 2. The factors themselves vary widely according to the specific model of well-being and many studies focus on individual or small groups of factors. So, a study which finds an association between, for example, exercise and well-being may not discover that there are other unknown variables causing both phenomena. For example, a positive attitude to health might, separately, lead to both taking exercise and well-being.
- 3. As the causal linkages between individual factors and well-being remain unproven, the weightings between the different possible factors are even less well demonstrated. So, for example, does long life contribute more to well-being than having access to education, and if so, how can the scales for each (years vs grades?) be made comparable and, by how much do they both impact well-being over time?
- 4. Well-being varies by individual, group and society in ways that are not well understood so that, for one person, having a close group of friends may be important, whereas for another, having money may be more important.

If the construct of objective well-being is a misnomer, as it describes the factors that are assumed to cause well-being, rather than well-being itself, what is well-being itself?

2.2 Subjective well-being

Many authors have noted that the impact of objective factors (such as wealth) do not have a predictable impact on well-being across societies and individuals. There are some other intervening variables which are either filtering or mitigating the impact of objective factors. Diener (1984) introduced the construct of subjective well-being (SWB), which represents the individual's perception of their own well-being and, according to Diener (1984), is a tripartite structure comprising life satisfaction, frequent experiences of positive affect (happiness) and infrequent experiences of negative affect (which are seen as distinct concepts, rather than the opposite ends of one continuum). Life satisfaction is a cognitive evaluation of one's life overall and could include comparative evaluations of self vs others; positive affect is the experience of happiness and negative affect is the experience of unhappiness. Strictly speaking, the intrinsic psychological factors that make up subjective well-being are actually causal or mitigating factors themselves, which in turn impact well-being as an outcome. However, for convenience we will comply with the general terminology of subjective well-being (SWB) to describe these various intrinsic causal/mitigating factors. SWB has been shown to relate to many individual outcomes such as socioeconomic advantages in higher income and education as well as positive psychological, interpersonal and physical functioning. In addition, SWB has been assessed at national and pan-national levels, via numerous global and national surveys, suggesting links to higher standards of living, more positive health indicators (mental and physical) and greater peace. Of course, these relationships could run in any causal direction, so peace could cause SWB or SWB could cause peace or some other unknown variable could cause both. Other studies have found that, on the one hand, SWB is altered in the short/medium term by changes in circumstances (for example, Luhmann et al. 2012), and on the other, that SWB (somewhat like optimism) is significantly derived from individual dispositions (genetic or highly conditioned) and is therefore stable and trait-like and returns to a norm in the face of, even major, positive and negative events (Lucas & Donnellan 2012). Busseri (2014), however, argues against the three factor model of SWB, suggesting that it is unclear how the three components relate to each other and whether, for example, they are all causally related, for example, positive affect causes life satisfaction, rather than being components of one construct. Busseri (2014) introduced the following alternative models:

2.2.1 Model 1: tripartite

The tripartite model of SWB comprises life satisfaction, positive and negative affect. In this model, any of the components could separately impact SWB and some of the well-known national/global measures, for example, just measure life satisfaction as representing SWB.

2.2.2 Model 2: hierarchic

In this model, the three factors come together to form the overall higher order factor of SWB, and so their commonalities and variations are all important in its definition. For example, it would be important to ascertain whether the factors maintain their inter-correlations across gender, age and ethnicity (Linley et al. 2009).

2.2.3 Model 3: causal system

This model most closely mirrors the main theme of this book: that well-being and engagement are related factors within a complex set of factors – antecedent and outcomes – and that much research and practice to date has suffered by confusing components and causes. In the literature to date, it is assumed that positive and negative affect influence life satisfaction but not vice versa and that positive and negative affect may also mediate between other variables, such as personality factors (for example, attribution style) and life satisfaction. Sometimes positive and negative affect are 'netted' out to produce 'affective wellbeing' which again predicts life satisfaction. In this model, SWB seems to be equivalent to life satisfaction alone, and positive and negative affect are causal factors. This model allows positive and negative affect to be tested as causal factors and mediators of other variables for life satisfaction but also allows other variables to be tested for their direct impact on life satisfaction. For example, Schimmack (2008) found that unemployment and regional differences between East and West Germany directly impacted life satisfaction (or SWB). Busseri (2014) found that greater age, higher income, not being single, less extraversion and greater intentional living (investment of thought/effort into work, finances and so on) as well as greater positive and less negative affect, all predicted greater life satisfaction, but that life satisfaction was also fairly stable over time while positive and negative affect varied significantly.

2.2.4 Model 4: composite

This model assumes that calculation of the levels of the three factors leads to a figure for SWB overall. This is often erroneously confused with the higher order approach within Model 2, and the appropriate weightings of each factor are unknown, although researchers often apply no weightings. This crucial but often ignored question of weightings also applies to the many single score aggregated measures of overall wellbeing (subjective/objective) which derive from large numbers of variables which are most often given equal weights.

In Busseri's (2014) analysis, the causal Model 3 aligns with the principles adopted in this book, in the sense that life satisfaction, positive and negative affect are all separate parts of a causal model (with life satisfaction representing SWB). An extension of the causal model, as previously described, is that the causality may be bidirectional where positive and negative affect may cause life satisfaction, but also higher levels of life satisfaction may cause positive affect.

Subjective well-being as a self-assessment 2.2.5

Subjective well-being is entirely as perceived and assessed by the individual. So, it is impossible for any external observer to gauge another individual's subjective well-being objectively. The observer can only ask the individual to assess their own perceptions and most surveys of wellbeing include questions such as 'All things considered, how satisfied are you with your life as a whole these days?' (From the World Values Survey: http://www.worldvaluessurvey.org/wvs.jsp).

So, when asked that kind of question, how does an individual assess their own perceptions of well-being? What criteria do they use? Accepting that people's assessments are probably not the result of logical analysis of criteria but heavily influenced by recency and affect, the main types of criteria that could be used are as follows:

- Evaluative: These include cognitive evaluations of the objective factors as well as of my own life. For example, how much do I value and how satisfied am I with, for example, wealth or health? This evaluation could also include cognitive evaluation of my life (especially in relation to others) and affective or emotional factors (positive or negative), including any innate (possibly genetic) propensity toward positive or negative affect.
- Hedonic Criteria: These types of criteria reflect the mostly short-term impact of experiences on positive and negative affect or emotion.

Positive or negative affect vary widely over very short periods so any meaningful assessment as part of subjective well-being would have to take into account more sustained states of mind. Also, as positive or negative affect can clearly be influenced by objective factors which are already included within our evaluative model; we might need to isolate any sustained causes of negative or positive affect which are independent of objective factors. This has been the subject of much research in the field of positive psychology (see below).

- Eudemonic criteria this category of criteria is based on the premise (reflecting Maslow's 1943 self-actualization peak of the motivational hierarchy) that sustained well-being is increased not just through short-term happiness but also more eudemonic factors such as 'positive relations with others, autonomy, purpose in life and personal growth' (Ryff 1989: 1071) involving challenge, development and 'stretch so on'. Hicks et al. (2013) make the point that while affective factors (happiness) are transient and ephemeral, eudemonic criteria may be more sustained (and therefore closely related to well-being) but are often seen as less amenable to measurement or improvement.
- Comparative evaluation: It is clear from a great many studies that a significant factor in an individual's self-assessment and perception of SWB is predicated on comparisons with other people or groups which are considered as benchmarks. So, for example, perceived inequality of income has a greater impact on subjective well-being than income per se (above a basic level).

2.3 Well-being is part of a process with causes and outcomes

In critiquing the various approaches, this section introduces the PACE framework (detailed in Section 2.4) where the components of objective and subjective well-being are more correctly seen as potential causal factors of active enthusiasm while themselves having their own antecedents (Figure 2.1). These objective and subjective causal factors combined with close group, situational and individual socio-psychological factors, combine to result in well-being and engagement as perceived, or experienced, by the individual, leading to active enthusiasm in an organizational, national or other group settings, such as family or place of worship.

In this preliminary systems model, objective factors, such as health, will impact active enthusiasm indirectly, being mitigated by subjective factors such as propensity for optimism.

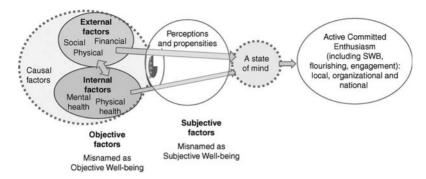


Figure 2.1 Outline process of active committed enthusiasm (PACE)

Interventions by national and organizational leaders tend to focus on the 'objective', macro causes of well-being and engagement with little focus on the socio-psychological factors (internal propensities) that may well have more impact. This may be because national and organizational leaders feel more able, or legitimized, to modify the objective factors (see below).

Researchers and practitioners have become increasingly concerned to try and identify the major factors associated with well-being and, in some cases, longitudinal studies to try and identify causal directions. For example, although managerial seniority is correlated with workplace well-being, is this because becoming a manager enhances well-being or because high levels of well-being increase the chances of becoming a manager. This search for cause suggests that well-being is best seen as a component of a process with causes and outcomes, many of which are probably both causes and outcomes in a self-reinforcing complex system. Thompson & Marks (2008) provide a simple example as at Figure 2.2 below (describing 'flourishing' as an extension of well-being – discussed below).

2.4 Well-being as the absence of disorder

A major theme in the earlier literature and practice relating to well-being, was that well-being was essentially the absence of mild or severe mental disorder or stress. For example, Cooper (2014), introducing the major edited series 'Well-being: A complete reference guide', states: 'We know that 1 in 4–6 people in most countries in the world suffer from a common mental disorder... The cost of low productive value due lack of

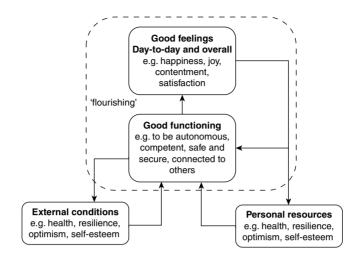


Figure 2.2 The dynamic model of well-being, based on Thompson & Marks (2008). Source: After Jeffrey et al. (2014: 11).

mental well-being is a significant proportion of gross domestic product'. In organizational settings, the focus might be on ameliorating occupational stress, while at a country level the focus might be on avoiding or curing mental disorders such as depression. In this model, nearly every element of life is a potential contributor to or causes the depletion of mental capital. The view is that life comprises many challenges and potential sources of stress (as well as opportunities) so mental resilience is the key component of well-being.

As stated in the UK government's major two year review on wellbeing:

'The relentless demands for increased competitiveness will combine with changing family commitments, such as the two-earner family and the increasing need to care for older adults. These demands will have major implications for work-life balance and the well-being of workers, and have knock-on effects for their families and communities'. Foresight Mental Capital and Well-being Project. (2008: 12)

This perspective, although often stated together with more positive goals, has the danger of policy makers, in particular, (at government or organizational level) being encouraged in a 'classic misunderstanding of the relationship between wellbeing and illbeing. Wellbeing is more than the absence of illbeing, just as health is more than the absence of disease'. Huppert (2014: 3).

Causal antecedents, from this viewpoint, cover every life-circumstance that could conceivably cause stress or damage well-being, including learning difficulties, maternal diet, mental ill health, alcoholism, poverty, stressful work and negative stereotypes of older people. Recommendations include parental coaching, targeting of vulnerable groups and use of drugs for cognitive enhancement (Foresight Mental Capital and Well-being Project 2008: 19). These interventions aim to achieve 'a small change in the average level of well-being across the population [that] would produce a large decrease in the percentage with mental disorder, and also in the percentage who have sub-clinical disorder'. (Foresight Mental Capital and Well-being Project 2008: 19).

Outcomes would include, for companies, for example, more productive employees and greater competitiveness. In the initial stages of Oman's development, for example, a key objective was to reverse a loss of capabilities as Omanis sought a better life outside the Sultanate due to lack of basic services.

Many interventions, proceeding from this perspective, have as a primary outcome measure, reductions in, for example, symptoms of depression, anxiety and conduct disorders, rather than, for example, positive improvements in pro-social behaviour, interpersonal relations or subjective well-being (Huppert 2014).

2.5 Positive psychology perspective

The notion that wellness is not simply an absence of illness (mental or physical) has been recognized for some time and has led to research to define the distinct components of psychological or subjective well-being. Huppert and So (2013), for example, derived a comparative list of the components of SWB as defined by some of the major studies (Table 2.3), where Seligman (2012), for example, defines psychological well-being (or 'flourishing') as comprising positive emotion, engagement, relationships, meaning and accomplishment. It is interesting that 'engagement', the other main focus of this book, is seen as a component of SWB (or more actively 'flourishing' as described by Seligman 2012 and others).

This positive view of well-being is often labelled 'flourishing' (Table 2.4) and is often contrasted with 'languishing' as defined by Keyes (2002), with a mid-point of moderately mentally healthy. Not only do some authors see well-being as more than the absence of disorder but some define positive well-being as not even on the same continuum

Table 2.3 Components of psychological well-being (or positive mental health)

Jahoda (1958)	Ryff (1989)	Antonovsky (1985)	Ryan & Deci (2001)	Seligman (2012)
Autonomy	Autonomy	Comprehensibility	Autonomy	Positive Emotion
Environmental mastery	Environmental mastery	Manageability	Competence	Engagement
Self-actualization	Personal growth	Meaningfulness	Relatedness	Relationships
Self-attitude	Self-acceptance			Meaning
Integration	Purpose in life			Accomplishment
Perception of reality	Positive relationships			

Source: After Huppert (2014:4).

Table 2.4 Four conceptualizations of flourishing

Keyes (2002)	Huppert & So (2013)	Diener et al. (2010)	Seligman. (2012)
Positive relationships	Positive relationships	Positive relationships	Positive relationships
Positive affect (interested)	Engagement	Engagement	Engagement
Purpose in life	Meaning	Purpose and meaning	Meaning and purpose
Self-acceptance	Self-esteem	Self-acceptance and Self-esteem	-
Positive affect (happy)	Positive emotion	_	Positive emotion
-	Competence	Competence	Accomplishment/
			Competence
-	Optimism	Optimism	_
Social contribution	_	Social contribution	_
Social integration	_	_	_
Social growth	_	_	_
Social acceptance	_	_	_
Social coherence	_	_	_
Environmental	_	_	_
mastery			
Personal growth	=	=	=
Autonomy	_	_	_
Life satisfaction	_	_	_
_	Emotional stability	_	_
_	Vitality	_	_
-	Resilience	-	-

Source: After Hone et al. (2014: 64).

as mental disorder. Keyes (2002), for example, distinguished this SWB continuum from mental disorder per se (as discussed below) so that, for example, conceivably someone could be flourishing while also suffering from schizophrenia.

From this defined continuum, several groups of researchers have attempted to conceptualize and operationalize 'flourishing'.

2.5.1 Keyes

Keyes (2002), despite describing SWB as not simply the absence of illbeing, derived his SWB components by identifying positive versions of symptoms described in the internationally agreed diagnostic manual (DSM) for mental ill health conditions (American Psychiatric Association 2003). Keyes' (2002) model is based on the definition of well-being as comprising emotional (hedonic), psychological (eudemonic) and social (eudemonic) components (Table 2.4). The Mental Health Continuum-Short Form (MHC-SF) (Table 2.5) comprises three items assessing

Table 2.5 Mental health continuum-short form (MHC-SF)

Theoretical dimension	MHC-SF item (numbers show item order)
	In the past month, how often did you feel
Emotional well-being (E)	
Happiness	Нарру
Interest	Interested in life
Life satisfaction	Satisfied
Social well-being (S)	
Social contribution	That you had something important to contribute to society
Social integration	That you belonged to a community (like a social group, your neighbourhood, your city)
Social actualization	That our society is becoming a better place for people
Social acceptance	That people are basically good
Social coherence	That the way our society works makes sense to you
Psychological well-being (P)	
Self-acceptance	That you liked most parts of your personality
Mastery	Good at managing the responsibilities of your daily life
Positive relations	That you had warm and trusting relationships with others
Personal growth	That you have experiences that challenge you to grow and become a better person
Autonomy	Confident to think or express your own ideas and opinions
Purpose in life	That your life has a sense of direction or meaning to it

Source: After Keyes (2002).

emotional well-being, six for psychological well-being and five for social well-being. Keyes used a scale of episodic frequency (how often in the last month did you...) to match with the diagnostic method of the DSM. Issues here might include inaccuracies in recall (although if we are interested in the perception of SWB this may not matter), as well as not allowing for variations in the intensity of experiences (that is extreme happiness may be easier to remember than slight sadness). The scoring is based on adding the various scales with no weighting, so the construct is assumed to be reflected by the equal weights of all factors as scored. Internationally, wide variations have been found (Hone et al. 2014) with adult Koreans, for example, reporting a rate of flourishing of 8%, South African adults at 20%, Egyptian teenagers at 23%, Chinese adults at 44% and US college students report a rate of 49%. As we see elsewhere, there are cultural differences in the way these kinds of questions are perceived and answered with, for example, Koreans possibly likely to perceive high scores as immodest. Correlations have been found between flourishing and superior physical and psychological functioning (Keyes 2002).

The MHC-SF has been applied extensively with great reliability and validity and has successfully predicted risks of mental illness, suicide and health care usage.

Huppert & So 2.5.2

Huppert & So (2013) defined a continuum from 'illbeing' through to well-being so that mental disorder was seen at the opposite end of a continuum from well-being. Whereas Keyes (2002) saw mental disorder as distinct and not part of the continuum, with languishing as the polar negative of flourishing, Huppert & So (2013) treat mental disorder as the negative pole with languishing as a slightly more positive dimension. Adopting a similar approach to Keyes (2002), they identified the illness conditions of depressive episodes and generalized anxiety disorder and identified the opposite symptoms to those described in the DSM (American Psychiatric Association 2003) and the International Classification of Diseases (World Health Organization 1990). This gave the ten positive features shown in Table 2.4 which are accessed via the European Social Survey (ESS Round 3: European Social Survey 2014) (Table 2.4). Again, similar to Keyes (2002), these scales require the fulfilling of some but not all criteria to be described as having wellbeing and include hedonic and eudemonic attributes in 'feeling good and functioning effectively' Huppert & So (2013: 838).

The scale does not seem to have been very widely applied to date but results show variations of 10% for Portugal, Slovakia and Russia, compared to 41% in Denmark.

Table 2.6 Features of flourishing and indicator items from the ESS

Component of flourishing	ESS indicator item
Competence	Most days I feel a sense of accomplishment from what I do
Emotional stability	(In the past week) I felt calm and peaceful
Engagement	I love learning new things
Meaning	I generally feel that what I do in my life is valuable and worthwhile
Optimism	I am always optimistic about my future
Positive emotion	Taking all things together, how happy would you say you are
Positive relationships	There are people in my life who really care about me
Resilience	When things go wrong in my life it generally takes me a long time to get back to normal (reverse score)
Self-esteem	In general, I feel very positive about myself
Vitality (In the past week)	I had a lot of energy

Source: Adapted from Huppert & So (2013).

2.5.3 Diener et al.

Diener et al.'s (2010) Flourishing Scale (FS) attempted to add some eudemonic aspects to previous emotional/hedonic focused scales such as Satisfaction with Life and Positive and Negative Affect. This scale was developed through a review of the extensive literature, suggesting dimensions of well-being which are important for positive functioning and comprising competence, self-acceptance, meaning, relatedness, optimism, giving and engagement (Table 2.4). All items (Table 2.7) are phrased as positives (which can lead to bias) from strongly disagree to strongly agree.

Several studies have confirmed the scale's validity, reliability and structure (Hone et al. 2014). And it has been used with good correlations alongside other measures of SWB.

2.5.4Seligman

Seligman's (2012) PERMA scale assesses positive emotions, engagement, positive relationships, meaning and accomplishments (Table 2.4). The PERMA scale was developed from hundreds of potential items in studies of over 11,000 individuals and refined to produce the 16 item PERMA-Profiler (Table 2.8) with three items for each of the five constructs and one overall well-being question to allow comparison with other national type surveys.

Table 2.7 Components of flourishing and indicator items from the flourishing scale

Component of flourishing	FS indicator item		
Purpose/meaning	I lead a purposeful and meaningful life		
Positive relationships	My social relationships are supportive and rewarding		
Engagement	I am engaged and interested in my daily activities		
Social contribution	I actively contribute to the happiness and wellbeing of others		
Competence	I am competent and capable in the activities that are important to me		
Self-respect	I am a good person and live a good life		
Optimism	I am optimistic about my future		
Social relationships	People respect me		

Source: After Diener et al. (2010).

The scales combine frequency and magnitude – all phrased positively. Each component is assessed by adding the three item scores and then used as a five part 'dashboard', with no overall single measure of flourishing, so that interventions can be targeted. This is an interesting and wide reaching argument as many well-being instruments do indeed attempt to produce a single index not only for individuals but for nations. Various statistical demonstrations have been carried out but with little empirical evidence of the value of the dashboards or psychometric properties to date.

As Hone et al. (2014) suggest, the four models above comprise slightly different constructs with slightly different purposes but agree that 'flourishing' refers to high levels of SWB and that SWB itself cannot be adequate measured by a single-item assessment. Although, of course, a single-item may be useful at a coarse level of granularity (say a nation) for comparison or to direct further analyses.

All four agree that flourishing includes both hedonic and eudemonic attributes. This results in some overlap, with engagement, for example, appearing in all four models and positive relationships and meaning also appearing in all four. Self-esteem/acceptance appear in all except the PERMA-P. Huppert & So's (2013) model does not include 'autonomy', because it does not arise as an opposite to a disorder symptom. They make the point that autonomy may be more salient in Western individualistic societies than in collective societies. All four models are short and easy to administer and produce data useful for

Components of flourishing and indicator items from the PERMA-profiler	
Table 2.8	

						n things?
Table 2.8 Components of flourishing and indicator items from the PERMA-profiler	PERMA-P indicator item	In general, how often do you feel joyful?	In general, how often do you feel positive?	In general, to what extent do you feel contented?	How often do you become absorbed in what you are doing?	In general, to what extent do you feel excited and interested in things?
Table 2.8 Components of flo	Component of flourishing	Positive emotion			Engagement	

To what extent do you receive help and support from others when you need it? In general, to what extent do you lead a purposeful and meaningful life? How satisfied are you with your personal relationships? To what extent have you been feeling loved? Positive relationships

How often do you lose track of time while doing something you enjoy?

In general, to what extent do you feel that what you do in your life is valuable and worthwhile?

Meaning

How much of the time do you feel you are making progress towards accomplishing your goals? To what extent do you generally feel that you have a sense of direction in your life?

How often do you achieve the important goals you have set for yourself? Accomplishment

Taking all things together, how happy would you say you are?

How often are you able to handle your responsibilities?

Source: Derived from Seligman (2012).

General well-being

individuals, policy makers (including managers) and health professionals. Only Keyes (2002) includes life satisfaction as an item but, given that life satisfaction is seen as a separate but related construct to flourishing (Huppert & So 2013), then Hone et al. (2014) recommends the inclusion of a life satisfaction question alongside the measures of flourishing as shown in Seligman's PERMA-P (Seligman 2012). Hone also recommends research to compare these measures with what people themselves would describe as flourishing, using Prototype Analysis (Morgan et al. 2014) – a proven method for gaining meaning from 'fuzzy' natural language concepts.

The models above also agree that well-being is not simply the absence of ill-being (that is not being depressed), but Keyes (2002) also suggests that mental disorder is actually a different concept altogether, not on the same continuum. Both Keyes (2002) and Huppert & So (2013), however, derive most of their scale items by identifying opposites to symptoms of, for example, depression.

Researchers have attempted to demonstrate the differences in these constructs by pointing out that it is possible for an individual to present aspects of well-being and mental disorder at the same time. Huppert & Whittington (2003) found some independence between scales for negative and positive well-being as, although most people who had high scores on one then had low scores on the other, some people (35%) had either low or high scores on both. This could be because the frequency type questions allow, for example, someone to have felt anxious in the last 30 days and also have felt extreme happiness in the last 30 days - but not at once. Also, definitions of negative and positive well-being do not require all their conditions to be fulfilled at once, so it may well be possible to fulfil one or two of the components of both at the same time. Nevertheless, these explanations do not preclude the possibility that mental disorder is a separate construct from the languishing-flourishing continuum. In the same way that having a broken leg is not the opposite of having healthy muscle tone. Similarly, although a broken leg might not be the same construct, it would potentially have an effect on general health, in the same way that a mental condition might well impact the 'languishingflourishing' continuum. Keyes (2002) proposes two continuums, one for mental disorder and one for mental health.

In terms of causal factors, high national income, higher education, living with a partner and paid employment all relate to subjective and psychological well-being while education, income and employment status all relate to (organizationally expressed) social well-being,

while being married, aged between 45 and 54 and with more than 16 years of education all seem to relate to flourishing (Schotanus-Dijkstra et al. 2015).

Personality traits seem to have the strongest predictive value - especially low neuroticism, high extraversion and high conscientiousness. Also, the theory of chronic happiness (Lyubomirsky et al. 2005) suggests that each individual has a genetically predicated stable happiness level that is unlikely to change and that genetics contribute 35-50% to this long-term happiness. This 'hedonic treadmill' theory suggests that there is a baseline of happiness to which individuals return after key events, but some studies, while still broadly supporting the theory, have suggested even this baseline can change somewhat in relation to some major life events in some individuals (for example, Mancini et al. 2015).

Comparability and equity in subjective well-being

Research shows that perceived well-being is significantly affected by the person's perception of comparability and fairness.

Comparability: To what extent are my circumstances similar or worse/better than the circumstances of those I compare myself with (for example, neighbours, family and workmates). For example, people who could objectively be described as deprived or poor, can still report relatively high 'well-being' provided their circumstances are comparable to those of their neighbours. Country comparison studies find a weak relationship between wealth and SWB in poor countries, mainly because of the human adaption theory to factors such as poverty, discrimination, unhealthy conditions and so on. For example, a person in a certain cultural situation might not notice or have any bad feeling about any of the above mainly because of surrounding environment where everybody is living in the same situation, and it is culturally accepted. Whereas a person in a different country may suffer lower SWB in the same circumstances because of the different culture, government initiatives and comparable standards of living.

Equity: To what extent are my circumstances 'fair'? Do I get fair treatment from government, employers, friends and others? Equity has a strong influence on perceptions of well-being.

Well-being, flourishing and other perceived states are impacted not just by my objective assessments of income, health and so on but also my perception of my relative position in all these causal areas (Figure 2.3) – relative both to changes in causal factors over time (my past) and equity perceptions compared to reference groups (for example, neighbours,

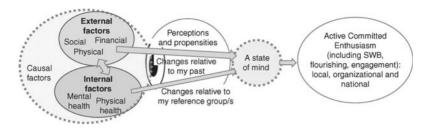


Figure 2.3 Relativities in the PACE node of subjective well-being

work groups, class or aspirational target). So, for example, if my income was high, in absolute terms or compared to a very wide unrelated population, but suddenly it was reduced (so worse, compared to my past) or was the same but lower than my equivalent work colleagues, then my SWB might suffer. Similarly, if I am poor, but I get a raise and my income exceeds that of my neighbours, then my SWB might increase.

Some authors (for example, Allin & Hand 2014) describe subjective well-being as simply one component, or pillar, of overall well-being. They recognize an obvious issue with this model: 'Since subjective wellbeing is regarded as a component of quality of life, at first glance it might look as if a rather circular definition results' (Allin & Hand 2014: 11). While Allin & Hand fail to resolve this logical dilemma, we suggest that well-being itself is fundamentally subjective and that causal factors or components, such as health or wealth, are not 'well-being' in themselves (Figure 2.3). Therefore, factors described as objective are in fact important components of a causal process of constructing the individual's subjective sustained sense of well-being. Subjective well-being represents the individual's resulting perceived sense of well-being and is a proper target and objective for any well-being programme. However, even subjective well-being is often described in terms of various psychological factors which are, of course, causes rather than the construct itself. This will be explored further in the next sections. Statistically speaking, subjective well-being is the dependent or outcome variable and objective factors are independent or predictor variables. Recent OECD work on subjective well-being supports this view, recommending the assessment of: 'a variety of objective well-being outcomes and how they combine to produce an overall perception of well-being' OECD (2013b: 216). Although the OECD recognizes that objective causal factors are 'outcomes', for example, of policy decisions, it also recognizes that they combine to pass through a mitigating filter of personal factors and relativity assessments to produce the final subjective well-being.

Antecedents and causes of well-being

Almost every aspect of an individual's life and personal characteristics have an effect on their well-being either directly or indirectly, especially if the definition of well-being includes short-term affect. The sight of a butterfly in spring or a great piece of music will have an effect, as would a significant change in income or national security - the important question is the degree and longevity of the effect. A great many authors have identified numerous factors associated with well-being and/or flourishing and some have even demonstrated some kinds of causal effects through, for example, longitudinal or twin studies. The following section discusses the most significant factors based on sound research. This research almost always uses statistical association analyses to discover the degree of significance between a specific instrument assessing well-being and some devised measure of the variable in question. There are some problems with this methodology (reviewed below) but the results have value. Many of the studies utilize global data sources such as the World Values Survey and many use relatively small samples, perhaps with specific characteristics of interest, such as occupation, age or nationality.

As we noted at the beginning of the book, our interest is in helping organizational leaders (from policy makers through to workplace supervisors) to maximize organizational goals using the process of active committed enthusiasm (PACE). So we have reviewed the evidence of causality with this pragmatic goal in mind. The factors that follow are organized into loose groups for convenience, although many factors would overlap:

- Policy-related factors (such as national/organizational income and governance)
- Work-related factors (such as commuting)
- Environmental factors (such as pollution)
- Social factors (such as having friends)
- Individuals factors (such as gender and personality)

Lastly we discuss the issue of homeostasis – the observation that wellbeing levels tend to return to a 'norm', even after sustained change in key circumstances.

There are two main foci for investigations of the causes of well-being – positive psychology focusing on the individual's feeling of well-being, and policy/economic, focusing on the material factors impacting well-being and more easily able to be influenced by governments and organizational leaders. Eger and Maridal (2015), carrying out a meta-analysis of causal factors, distinguishes between happiness (a short-term affective state) and life satisfaction (a longer-term cognitive experience) with a relatively low correlation between them in the World Values Survey, suggesting the two are different but related concepts, These are described by Eger and Maridal (2015: 47) as Evaluative Well-being (EWB) and Affective Wellbeing (AWB), see Figure 2.4 below.

Factors causing evaluative and affective well-being (with correlations found in a meta-analysis by Eger and Maridal 2015) include:

- Living Standard EWB is impacted considerably by living standards but only up to medium income levels, while the effect on AWB (happiness) is only a short-lived. Living standards or wealth can also increase EWB indirectly if, for example, it allows someone to help others and thereby gain more meaning in their own lives.
- Health and Environment objective indicators of health identified in the literature include life expectancy, undernourishment, suicide rates, positive experiences, mental and physical suffering, and air, water and sanitation quality. As an example of reverse causality, EWB itself is also a predictor of future good health (Eger & Maridal 2015).
- Freedom Political, economic, civil and religious. This could be measured at societal level or as perceived by any individual.
- Community and relationships family and social life, friendships.
- Peace and security levels of violence, corruption and crime.
- Opportunity access to education, employment and so on without discrimination.

The World Database of Happiness – http://worlddatabaseofhappiness. eur.nl/ has been developed by Veenhoven and colleagues (Veenhoven 2014) to try and provide an overview of the huge and growing research and findings on the subject of happiness (including SWB, flourishing



Figure 2.4 Well-being – life satisfaction and happiness on the EWB-AWB Source: Adapted from Eger and Maridal (2015: 47).

and engagement). As of 2014, it contained around 9000 articles and books which are organized and accessible through searching and indexes. Veenhoven (2014) uses this database to review the major themes and research findings, including a review of the measures and causal factors of SWB referred to in the appropriate sections below.

2.7.1 Policy-related factors

In all these areas, it is important to consider the likely causal direction. Binder (2015) for example suggests that the impact of income, health, social contacts and education increases along with increasing subjective well-being so that SWB is a cause of these phenomena rather than just an outcome.

2.7.1.1 Inflation

At a country level, inflation does not seem to be associated with SWB, but at individual level there seems to be a negative effect of higher or volatile inflation (Alesina et al. 2004). Of course, high inflation may be a symptom of many other economic problems and itself cause effects like increased costs of debt, so it may well be that inflation per se is not the main associated factor.

2.7.1.2 Income levels

The Easterlin Paradox (Easterlin 1974), a subject of current controversy, suggests that rises in national income do not necessarily result in rises in SWB and in fact sometimes can result in 'unhappy growth' if the rise in national income results in greater inequality and aspirations that cannot be met (Easterlin et al. 2012). Andrada (2015) found that increases in income only increased life satisfaction up to a certain level of income as also noted by Eger (2015) above. This confirms earlier observations (for example, Dluhosch et al. 2012; Easterlin 2015) that rich and poor countries can have identical life satisfaction levels.

In fact, it appears that SWB increases with income per capita but the gains are smaller in higher-income countries. Also, income impacts life evaluation/satisfaction more than it influences measures of affect (Jorm & Ryan 2014).

Possible explanations include: that SWB as a perception is more based on relative than absolute incomes; that the important impact of income increase is to satisfy basic needs; that income is a hygiene factor (Herzberg et al. 1959); that rich people adapt to high incomes (that is SWB is also relative to me as I was yesterday) or that higher income is offset by harder work or other disadvantages (Di Tella & MacCulloch 2008). The inference might be that if societal well-being is the aim of government, then growth in national income is not a valid policy goal above a certain level; that rise in national income in developed economies is only of value if it gives rise to more meaningful goals such as improving relationships or the quality of working life (Diener & Oishi 2000) or indeed more meaningful work; or if national policy focused on changing the population's reference groups for income comparison or focus of SWB evaluation, which is arguably one effect of the Bhutan Happiness initiative (Biswas-Diener et al. 2015).

There is a strong relationship between GDP (and individual wealth) and well-being until a certain level is reached, with similar results for measures such as positive affect/happiness. There is general agreement that the relationship between income and well-being is logarithmic, that is to say that a \$1,000 increase has more effect on the SWB of someone earning \$1,000 pa than on someone earning \$1,000,000 pa. At country and individual level, higher incomes equate to higher well-being until a certain level is reached, after which the effect reduces to nil. This is explained by a diminishing returns view as above. It is also noted that other factors, such as social capital, seem to become more important and moderate the effect of income reductions. Another explanation is that measures of well-being are bounded by the usual Likert scales of 1–7, so that as higher levels of well-being are achieved the chances of ever higher scores become nil, whereas, for income for example, there is no upper boundary. Well-being levels in the US and Germany, for example, seem to have risen very little over the past 30 years, having achieved a certain level. It is also problematic to consider causal variables in isolation of course, and various studies have found that the effect of income changes is reduced if other factors such as quality of government, social capital, health and other factors are included (Abdallah et al. 2012. Again, it is likely that national income is also impacting some of these other variables (like health) and quality of government may impact GDP, so there are complex possible causal interrelationships. At an individual level, the relationship between income and SWB seems greater in middle-aged groups than the younger or older (Cummins 2003), which could be due to the relatively fixed income potentials of the younger and older cohort compared to the middle-aged, where there may be a stronger perception that effort, attention and competence could influence income. If so, then this might suggest that satisfaction in various domains might also be effected by some perception of salience, for example 'My income/ health is how it is, I can't change it so I won't worry about it'. A 'passive' acceptance rather than active enthusiasm or flourishing.

An important finding is that well-being does appear to be highly related to relative income, compared, for example, against one's neighbours (see below). Similarly, a level of 'sufficient income' was determined by relative economic situation rather than any absolute calculation (Stutzer & Frey 2012). Income is also more strongly related to life satisfaction and Cantril's (1965) ladder than to happiness measures (Kahneman et al. 2004). Perhaps this again is to do with relativities - Cantril's ladder implies some kind of relative progress, for example.

Veenhoven & Vergunst (2014,) in an analysis of the World Database of Happiness over time periods from 10 to 40 years in 67 nations, found a positive correlation between GDP and happiness where happiness had risen more in nations where the economy had grown the most. They dismiss the Easterlin Paradox (that economic growth does not buy greater happiness) as a function of inadequate data in the 1970s when it was developed. However, Easterlin et al. (2012), in a study of China from 1990 to 2010, found that as GDP increased, the life satisfaction of lowest socioeconomic groups decreased whereas the top third showed increased life satisfaction – indicative of growing income inequality rather than a relationship with simple income increase. Beja (2014) points out that the more recent finding (Easterlin et al. 2012), suggests that, in the short run, income may increase happiness but in the long-run happiness returns to a norm, which may have more to do with the issue that happiness scores tend to revert to a norm after any kinds of event. This could be due to structural psychological factors in human happiness (hedonic adaption) or because of the bounded scale issue, where scores cannot rise above the upper bounds of the various scales and so that a long-term continuous increase in happiness cannot be reflected or that social comparison is the factor, rather than income per se.

Behind the statistical debate, the practical implications are that increases in national GDP do not necessarily increase the well-being of the citizens, but this is probably highly dependent on how such GDP increase is translated into factors directly affecting the citizens, for example, health care, infrastructure, employment, pensions, government excellence and income inequality. Beja (2014), finding no substantive evidence of a long-run relationship between income growth and happiness, points out that any such debate should not focus on statistics or statistical method but should consider economic significance that is what does this debate tell us about something substantive and meaningful. There is no guarantee that national income growth will translate as individual happiness so the key question is 'what is done with the income?' rather than 'what is the income?' Factors like quality of government mediate between national income and individual happiness. So it would be envisaged that income growth in, for example, wellgoverned, equitable societies would have more of a positive effect on SWB than in badly governed, inequitable societies. On the other hand, a well-governed, equitable society with very low GDP may not be able to realize the benefits of good government and equality. So, as we know, SWB is an outcome of a complex structure of causes, and it is difficult to isolate the impact of any single factor.

The most significant implication of the Easterlin Paradox and the 'Unhappy Growth' paradox is that if an increase in national income does not result in an increase in national happiness, then the pursuit of income might be the wrong goal for government. Indeed, the nation of Bhutan has become known as the primary advocate of Gross National Happiness as the primary goal and measure of government success (Biswas-Diener et al. 2015).

2.7.1.3 Income inequality

Income inequality generally seems to have a significant impact on SWB (Jorm & Ryan 2014), except, for example, in the post-Soviet countries, with a relatively low level of inequality and low SWB, and Latin America, with high inequality and high SWB. In both cases, an explanation could be that other factors are more significant, for example, 'freedom in how the day is spent' is a significant factor in Latin American countries while in Russia, for example, explanations range from a (probably misconceived) impression of innate Russian melancholy, through to an effect of the overall low income level, especially in terms of household wealth (Zavisca & Hout 2005).

It seems likely that income inequality is one area where comparison (with my past and with my relevant persons) is a key factor in SWB.

Some studies have found either no relationship or even a positive relationship between greater income inequality and greater SWB (Veenhoven 2014), explained by a balancing out of positive and negative effects. This suggests that the relationship between income inequality and SWB is not simple and is probably once again mediated by numerous intervening factors. For example, Alesina et al. (2004) found a negative relationship (that is higher inequality = lower SWB) amongst poor and left-leaning people in Europe. Oishi et al. (2011) found that the effects of income inequality were mitigated by perceptions of fairness and general trust.

At an individual level, income inequality may have more impact if perceived in an immediate context. That is I may feel worse if a close friend or neighbour has a higher income than if a famous musician or

business person has a higher income. In this case, the relationship at a national level might also reflect homogeneity or visibility of inequality rather than just inequality itself. For a government, the key action might be to promote the facts of income equality amongst various key groups, rather than reducing income inequality itself.

2.7.1.4 Debt

Large, ongoing debts such as mortgages, do not have a negative impact on SWB, whereas credit card, emergency or other symptoms of unmanageable debt have a strong negative association with SWB (Tsai et al. 2014). Unmanageable debt is of course a symptom of other major issues which could impact well-being.

2.7.1.5 Social welfare and taxation regimes

Although one study found no relationship between national expenditure on social security and SWB (Di Tella et al. 2003), others have found that, for example, unemployment benefits mitigated the impact of unemployment on SWB and welfare generosity (which, based on what is received, may be different to expenditure) had a positive effect on SWB, in particular life satisfaction as opposed to positive affect or happiness (Haller & Hadler 2006). Similarly, progressive taxation had a positive association but mediated with the level of satisfaction with state-provided services.

In general, higher public spending and benefits entitlement seem to be associated with higher SWB. Associations have been found in various aspects of state spending, including state intervention in markets in advanced industrial countries (Flavin et al. 2011) and welfare spending – but more especially for middle-income individuals (Kotakorpi & Laamanen 2010). Others have found no relationships but do suggest that a whole range of factors common to developed nations, which Veenhoven (2014) describes as 'modernity', together associate well with life satisfaction and SWB.

2.7.1.6 Unemployment

Unemployment seems to be associated with negative SWB at individual level but not at a national level, perhaps because unemployment at a national statistical level takes little account of any informal, 'black' economy or people's actual, and possibly productive, use of time.

A meta-analysis (Di Tella et al. 2003) suggests that unemployed people have 5-15% lower life satisfaction scores, on average, than employed people. Unsurprisingly, these effects vary somewhat across age, gender and nationality - for example, Australian males seemed to suffer less effect on SWB than German, British or North American males or indeed Australian females (Helliwell & Huang 2014). Also, the effect seems greater in high-income countries (possibly due to relativity effects or difficulties in applying a strict definition of 'employed' in subsistence economies). The association was stronger amongst the highly educated in Britain (again likely due to comparability). It may be, of course, that people with low SWB are more likely to be unemployed (Milner et al. 2014) but, as with many aspects of well-being, there seems to be a circular interrelationship. Although SWB seems to return to a mean after an individual becomes unemployed, the effects seem to linger and to be greater than would be predicted just through loss of income. Many studies (for example, Fryer & Payne 1984) suggest that the unemployed suffer a range of negative well-being effects including inferiority, hopelessness (including hopelessness about future income), distrust, apathy and so on. In which unemployment per se is not the causal factor but the conditions it creates. Others (for example, Feather 2012) point out the lasting impact of unemployment on attribution style and general optimism. There may, of course, be a difference in the immediate impact of being made unemployed and the long-term process of being unemployed. Government or organizational policy might be that, as well as minimizing unemployment, some of its consequences in terms of esteem, meaningfulness and so on could be obviated by other types of organization sponsored activity. Some outplacement programmes, for example, aim to mitigate the collateral effects of unemployment on SWB (Challenger 2005).

2.7.1.7 Unemployment rate

On the one hand, the SWB of even employed people is lower in areas with low employment rates (Helliwell & Huang 2014), on the other hand, the SWB of unemployed people seems higher in areas with high unemployment rates, that is where everyone else is unemployed. Similarly, having an unemployed partner is beneficial in SWB terms for the unemployed but detrimental for the employed (Clark 2003). This confirms the importance of comparability and equity in perceptions of SWB.

2.7.1.8 Political system/governance

There is strong data to suggest that good governance has a positive association with SWB. Although this is often described as 'democracy' by researchers from countries with strong democratic traditions, several researchers (for example, Abdallah et al. 2012) have found that the

features of good governance, including 'voice', accountability, political stability, government effectiveness, regulatory quality, rule of law and control of corruption have strong independent associations with SWB. These features are not exclusive to politically democratic governments and would be claimed by countries with different political structures. In fact, some countries, such as Russia, show a decline in SWB since adopting more formally democratic structures (Pang et al. 2015).

Several studies have attempted to demonstrate a relationship between democracy as such and SWB with limited results. However, a closer relationship occurs when political factors are viewed over time with the relationship varying in times of change. This has led some to suggest that a lowering of national SWB may cause political change, rather than vice versa (Inglehart & Klingemann 2000). SWB has been found to increase over time in association with increases in free choice in societies (Inglehart et al. 2008). Veenhoven (2014), from a major review of research, identified that the correlation is not so much with democracy in the formal political sense but with institutional and government effectiveness factors such as rule of law and low levels of corruption. Veenhoven (2014) suggests that the correlation with institutional quality is that it provides a predictable [and secure] environment. Frey & Stutzer (2005) also note a phenomena described as 'procedural utility' which is a seeming preference for clear rules and processes – even if they are not entirely to the individual's benefit. Fair queuing systems, for example, appear to meet a basic human preference, at least in the US and UK (Sulek & Hensley 2004). Andrada (2015) also found that good governance, based on the World Bank indicators of political stability, government effectiveness, regulatory quality, rule of law and control of corruption, had a positive impact on SWB.

2.7.2 Work-related factors

As we will see, well-being in an occupational context (here described as work-related well-being) is usually defined fairly narrowly in the sense of physical and mental health of employees, possibly to avoid confusion with the concept of engagement, which is discussed later but is also usually researched in organizational settings.

In the context of this book, we are primarily focused on mental well-being, as this has an affinity to SWB as defined in the national context and the PACE framework suggests that physical health is a causal factor for SWB. Outcomes of physical well-being (health), however, could include increased productivity, less absenteeism and alertness. Work-related well-being, in practice, stems from concerns

about worker's health (physical and mental) and has generally taken a welfare perspective with some attention to performance or business outcomes. Well-being can be seen as a desirable outcome in its own right but also has implications for these outcomes. Recently, Karlsson (2015), for example, has considered more directly the business outcomes of work-related well-being, in terms of customer service and value co-creation through employee/customer interactions. In the specific realm of customer service, work by Anderson et al. (2013) in defining 'transformative service research' has identified the reverse causality where customer behaviour impacts employee well-being and the service process can impact the well-being of both. All of which reinforces the notion that well-being, in a work and every other setting, can be viewed as a component in a process with outcomes as well as causes and that these outcomes can be valuable objectives for organizations from teams through to nations, leading to goal-driven well-being, which is an active state, with similarities to engagement. Outcomes of eudemonic well-being (or self-actualization, which associates with the life satisfaction component of SWB) include better health, productivity, effectiveness, decision-making, respect, harmony and social networks (Karlsson 2015) and outcomes of hedonic wellbeing (or gratification, which associates with positive affect component of SWB) could include productivity, engagement, better customer relations and so on. Karlsson (2015) through qualitative focus group research identified a range of antecedents to work-related well-being (Table 2.9) in customer facing employees, many of which would be also found in an engagement-focused study.

This conflation of well-being and engagement is reflected in, for example, Schaufeli et al. (2008), and Hu et al. (2014) where 'workaholism', burnout and work engagement are described as 'these three kinds of employee well-being'. The same paper reports 'positive relationships between burnout and various mental and physical health problems' (Hu et al. 2008: 180). This slight confusion of components and causal relationships is similar to the descriptions of well-being as comprising factors such as 'quality of housing' – a cause rather than a component. Much of the research into work-related well-being stems from concerns about negative states of burnout, emotional exhaustion, depersonalization and so on. In this sense, work-related well-being is the absence of these negative states. From a positive perspective, Fredrickson (2013) suggests that positive emotions increase affective and cognitive resources thereby releasing various capabilities such as flexibility, analytical thinking and effort. This enables active consideration and

Table 2.9 Causal factors for eudemonic well-being

Employee competence	Specifically, knowledge about customers and their needs
Workgroup factors	Communication within and between teams and 'team spirit'
Processes	Effective IT and systems to help do the job
Feedback from customers	Positive recognition and feedback
Feedback from managers	Positive recognition and constructive feedback to improve performance
Giving good service	Satisfaction of having done a good job
Feelings	Feeling in yourself of having done well
Abilities	Relevant personal and professional abilities – including ability to let go
Management qualifications	Competence and clarity
Organization structure	Clear roles, priorities and rules
Employee's adaption to organization	Understanding the informal processes and networks
Information	From managers about the job requirements and context
Personal customers	Treating customers as personal relationships and vice versa
Physical environment	Pleasant, comfortable, safe
Problem-free work	If the work 'flows' then we feel good
Social factors – in customers	Pleasant customers
Social factors – in the workgroup	Supportive, pleasant, likeable colleagues
The task itself	Tasks I enjoy
Working conditions	Hours, stress, holidays and so on plus (Karlsson suggests) higher salaries

Source: After Karlsson (2015: 29).

involvement in a wider range of options than negative emotions (described as 'broaden') and creates psychological resources such as resilience (described as 'build'). So feeling positive enables a broadening and building of psychological resources which has implications for engagement. Fredrickson (2013) also notes that positive emotions do not arise in negative circumstances. Negative or positive circumstances have been described as workplace climate and this, in turn, has been shown to influence levels of engagement (Schaufeli 2013) and workrelated well-being (O'Neill & Arendt 2008).

Work-related well-being has also been defined as comprising three domains: levels of exhaustion, depersonalization (both) and personal accomplishment (Shuck & Reio 2014) all impacted by psychological climate and engagement. In a positive climate, people would experience positive affect which in turn would reduce exhaustion and depersonalization and increase personal accomplishment and people's work-related psychological well-being. Arguably, these three domains are causes of psychological well-being whereas Shuck & Reio (2014) show well-being as a further direct outcome of engagement (Figure 2.5). Psychological well-being was measured by the Schwartz Outcome Scale (Blais et al. 1999), which was originally developed to measure the outcomes of psychiatric treatments (so its applicability could be questioned).

As derived from the scale, Blais et al. (1999) define psychological wellbeing as (0–10 from 'never' to 'all of the time'):

- Given my current physical condition, I am satisfied with what I can do.
- I have confidence in my ability to sustain important relationships.
- I feel hopeful about my future.
- I am often interested and excited about things in my life.
- I am able to have fun.
- I am generally satisfied with my psychological health.
- I am able to forgive myself for my failures.
- My life is progressing according to my expectations.
- I am able to handle conflicts with others.

Shuck & Reio (2014) suggest that improvement in workplace climate (which is itself largely created by leaders) would lead to improvement

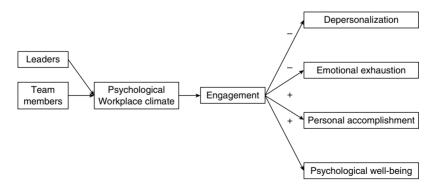


Figure 2.5 Conceptual relationship between workplace climate and well-being Source: Developed from Shuck & Reio (2014: 46)

in engagement and psychological work-related well-being. 'Employers can significantly affect employee well-being by focusing on psychological workplace climate and engagement as antecedents' Shuck & Reio (2014:55).

Veenhoven (2014), in a major review of the research literature (see world happiness database), found two major correlations for work-based SWB:

Autonomy seems to be a strong work-related predictor of life satisfaction. Veenhoven (2014) notes that this also fits well with the correlation of freedom, in a national setting, with life satisfaction. Perhaps freedom and autonomy are important in all domains?

Veenhoven (2014) found that some data suggests that size of organization predicts life satisfaction, but one might suggest this is due to the fact that larger organizations can provide many facilities and support which smaller organizations cannot.

Jeffrey et al. (2014) from the National Economic Forum have a more rounded definition of work-related well-being with very close relationships to constructs of national well-being. They describe work-related well-being as individuals feeling happy, competent and satisfied in their roles and suggest that people who achieve good standards of wellbeing are likely to be more creative, loyal and productive and to provide better customer satisfaction. They also specifically place workplace wellbeing in the context of engagement strategies, where essentially wellbeing and engagement are part of an overall rounded approach to help employees:

- Strengthen their personal resources
- Flourish and take pride in their roles
- Function to the best of their abilities (as individuals and with colleagues)
- Have a positive experience of work.

These objectives bear great similarities to those of engagement and it is quite difficult to differentiate the two concepts as described (see below).

In a review of research into causal factors for work-related well-being (although utilizing mostly national survey data on well-being), Jeffrey et al. (2014) conclude that the main causal factors were as shown in Table 2.10 (with additions by the current authors).

Table 2.10 Main casual factors for work-based well-being

Causal factor	Possible employer actions
Health (including sleep and vitality)	Provide health facilities, sponsor activities, allow exercise breaks, healthy canteen, avoid overwork and long hours.
Work-life balance (well-being peaks at 55 hours per week then drops rapidly)	Identify and facilitate employees' working preferences (hours, place and so on).
Equitable pay (Income affects well-being but mostly though comparison to others)	Set high minimums for pay levels (absolute pay affects well-being more for the lower paid). Institute fair, visible pay levels.
Job security	Avoid redundancies or at least manage fairly and supportively.
Feedback on one's performance (but not too much)	Encourage two-way feedback, for example, on manager's style and an open atmosphere, rather than formal.
Achievable, if challenging, jobs	Clarity, challenge, commitment, feedback and task complexity with self-determined goals.
Leadership behaviour (listening, support, respect, care)	Select, develop and encourage transformational rather than transactional leadership.
Working conditions	Need to be physically safe, comfortable and attractive.
Perceived social value of the organization's work and the job (meaningfulness)	Define and communicate the social contribution of the organization and the jobs within it. Institute social programmes, especially in the local area.
Match job to skills – do what you do best every day	Recruit, develop and allocate people to roles that utilize and develop their strengths.
Autonomy – control my work and the organization of my day	Create management ethos of trust and delegation. Provide good support and allow mistakes if possible.
Relations with colleagues	Create opportunities for social connection.
Relations with manager	Ensure managers are personable and approachable.
Experience positive feelings	Emphasize the positive, display optimism, recognize contributions.
Occupation level	People at higher levels have higher SWB (which could be a reverse causality) but impacted by more meaningful work self-esteem and status. Create opportunities for everyone for meaningful work, status and self-esteem.
Self-employment (in rich countries)	This seems to be related to autonomy (see above).
Commuting	Reduce unnecessary travel through remote working.

Source: Based on meta-analysis by Jeffrey et al. (2014).

2.7.3 **Environmental factors**

Many environmental factors can be impacted by government and organizations and these have been a major focus of, for example, measurement of objective factors. They also, of course, may well be included in more general measures of government/department/organizational effectiveness, outside the specific considerations of PACE. As with many objective or material factors, an increase above a certain, reasonably high level, appears to have diminishing impact on SWB so, for government or employers, there is no particular PACE benefit in providing more than a good global standard. As noted, the point beyond which increases in objective factors cease to impact SWB appears to be adjusted to a comparative norm as perceived by the individual, so this norm may contextual, for example, be different in a poorer country than in a richer country, and may change over time. The UN identifies this phenomena in describing how a gap between expectations of public service and actuality can damage Civic Engagement (Hoffman et al. 2008). For example, James (2009) found that the varied expectations of citizens about the quality of household waste removal services were far more strongly associated with satisfaction than the actual quality and level of performance. So, if an individual's expectations (most likely based on comparability) are low then they will be satisfied if those expectations are met, even if quality and performance are factually low. Similarly, an individual with high expectations will not be satisfied until those expectations are met even if objectively, performance and quality are high.

2.7.3.1 Physical environment

The local environment has an association with SWB, in that living in an area perceived as deprived reduces SWB (Abraham et al. 2010) and a positive perception of the local landscape has a positive effect, where natural rural environments have a stronger positive effect than urban environments, although Easterlin et al. (2011) found that other benefits of urban life outweighed the landscape effects. Areas that enable walking (rather than just driving) seem to be beneficial and evidence suggests that cul-de-sacs have a positive effect on SWB compared to through roads (Halpern 2008). These factors can be influenced by organizations (in their choices of location) and governments, in their choices of housing locations and infrastructure.

2.7.3.2 Housing

The quality of housing (covering a wide range of structural and maintenance factors) is positively associated with SWB, and poor quality

housing (as perceived) increases stress and lowers life satisfaction, as does living in high-rise or overcrowded housing (Bond et al. 2012). On the other hand, living alone is also negative for SWB (Evans et al. 2003), and home ownership is positive (Tennant et al. 2007).

2.7.3.3 Pollution

Atmospheric and noise pollution both had a negative effect on SWB with atmospheric pollution being based on perception whereas noise pollution, especially from traffic, had a direct objective effect. But some actions to reduce pollution might, of course, reduce some people's wellbeing in terms of, for example, convenient land and air transport or freedom to smoke (Croxford 2014).

2.7.3.4 Crime

Being the victim of crime and/or feeling unsafe in the area where you live are both negatively associated with SWB (Lorenc et al. 2012), but general levels of crime do not seem to have specific impact on SWB.

2.7.3.5 *Transport*

Public transport obviously improves the convenience of accessing various amenities and there is some evidence that it may enable some social communication. On the other hand, commuting has been shown to have a negative effect whereas journeying by car may positively associate with self-esteem and mastery aspects of well-being (Tyler 2014).

2.7.3.6 Climate

Extremes of weather (especially temperature) have a negative effect on SWB (Van Praag & Ferrer-i-Carbonell 2008.

2.7.4 Social factors

Social factors can be facilitated by governments and organizations through 'nudge' policies (where citizens are encouraged toward certain behaviours rather than legislated or given no choice) through provision of community facilities (such as clubs), events and infrastructure, such as sporting and meeting facilities.

2.7.4.1 Social capital

Social capital (social networks, support and trust) is usually measured by membership in voluntary bodies. There are two issues with this. Firstly, in collective societies, there may be a very strong network of trusted reciprocal relationships which are completely unrepresented by

formal membership of voluntary bodies, and secondly, membership of voluntary bodies may have an impact on SWB due to a feeling of taking part in worthy, meaningful activity (rather than the social capital effect itself). Nevertheless, a correlation is often noted (Bartolini & Sarracino 2014). A more recent study by Sarracino & Bartolini (2015), in a study of China's rapid growth between 1990 and 2007, used a more nuanced assessment, taking into account answers in the World Values Survey on how much people can be trusted, citizenship (represented by answers to questions such as whether 'cheating on taxes' is acceptable) as well as the more traditional, but we would argue, flawed, membership of associations. The study found a high correlation between a reduction in social capital as measured and lowering of SWB, despite the rapid rise in GDP in China. This does leave the puzzle as to why individualism seems to correlate with higher SWB when one might assume that collective societies imply greater social capital. Perhaps the social capital aspect of collectivism is outweighed by some other characteristic, such as less degree of freedom to act as 'I want' or, as above, the other correlating variables such as income are having a greater effect. In fact, several studies have suggested that social capital seems greater in individualistic societies perhaps because 'when individuals become more autonomous and seemingly liberated from social bonds, they actually become even more dependent on society' Allik & Realo (2004). This is less counterintuitive than it might seem as the construct of 'collectivism' has no real relationship to social capital questions such as 'is it Ok to cheat on tax'. Well-being as related to cultural differences such as collective-individualistic seems, in any case, to be significantly mitigated by how much the individual's life is consistent with underlying collective/individualistic values (Chebotareva 2015).

Although Shantz et al. (2013b) found a relationship between individualistic countries and references to engagement from respective HR professional bodies, this could be more related to the same countries having high social capital and therefore seeing engagement at work as important.

Individualistic components of autonomy and mutual dependence may facilitate social capital. Beilmann & Realo (2012) describe collectivism in terms of family (kinship), peers (companionship) and nation/society (patriotism) where individuals could vary between these types. Individualism is a mix of autonomy, mature self-responsibility and [perception of] uniqueness. Using a much more nuanced measure of social capital, Beilmann & Realo (2012) found that only three items (trust, honesty and interest in politics) appeared to be meaningfully related to each other. They measured collectivism using the ESTCOL Scale looking at family, peers and society (which arguably are very similar to the items rejected from the social capital scale). For example, on relations with colleagues, they asked: 'How often do you do something together with your colleagues (outside the working time)?' (1 = 'Never' ... 6 = 'Almost every day'). For individualism, they tested autonomy, mature responsibility and uniqueness of which only 'mature responsibility' correlated with social capital, whereas all the collective items correlated. 'Neither autonomy (defined as the capacity for independent thinking and judgement) nor uniqueness (defined as a person's awareness of being unique) is likely to create more social capital in society' Beilmann & Realo (2012: 213).

We suggest that the measurement of social capital as reported above is not really representing the underlying construct, particularly as represented in the informal but strong connections existing in collective societies. Unfortunately, correlations between collectivism/individualism and SWB also obscure reality as the positive association of individualism may well are due to the correlation of individualism with wealth, development and other factors common to developed nations. The following section looks at the associations between particular facets of social capital and SWB.

2.7.4.2 Social activity

Frequent contact with supportive social networks has strong positive relationship with SWB but the size of the networks seem to have less impact, where, for example, older people seem to selectively prune their networks, focusing time and energy on close emotional contacts (Siedlecki et al. 2014). At a country level, nations with higher social activity have higher SWB. Within that, both trust and social connections have strong positive associations. In fact, Sarracino & Bartolini (2015) explain the absence of a rise in well-being in both China and the US, despite improvement in economic conditions, to a common decline in social activity. Huppert (2014) also found that social activity mitigated the impact of stress on SWB.

2.7.4.3 Altruism

Although there appears to be a relationship between frequency and scale of altruistic behaviour (such as volunteering) and SWB, the causal direction is unclear (Helliwell & Huang 2014); that is, does high SWB cause or facilitate altruism, does altruism lead to higher SWB or is some other factor, such as high relative income, affecting both variables?

2.7.4.4 Organizational membership

Membership of organizations appears to associate with SWB (with again a caution about causal relations), but membership of trade unions, for example, (Kahneman et al. 2004) appears to decrease SWB (perhaps because joining is seen as defensive response to threat of insecurity rather than for social or pleasure reasons). There are also strong associations between various aspects of religiousness and SWB, including attendance at religious services (Helliwell & Huang 2014).

2.7.4.5 Trust

Trust in institutions (for example, government or police) and trust in other people are both positively associated with SWB (Helliwell & Huang 2014). Of course, trust itself could be the result of the external situation or body being trustworthy and/or the individual being inherently trusting.

2.7.4.6 Personal relationships

Being single is associated with lower SWB, and being in a partnership such as marriage can mitigate negative effects of some other negative factors, especially if the relationship is perceived to be stable. This relationship increases still further in later life (Carr et al. 2014). Separation has been found to have an association with reduced SWB (Ryff 2014) but mitigated by factors such as having a meaningful occupation.

2.7.4.7 Family relationships

Family conflict is negatively associated with children's SWB as well as the SWB of the involved family members themselves (Carr et al. 2014).

2.7.4.8 Work-family conflict

Work-family conflict (Winefield et al. 2014) is associated with lower SWB but not, interestingly enough, with lower organizational commitment/ engagement.

2.7.4.9 Social status

Veenhoven (2014) reports that several studies found a correlation between advantaged social status and satisfaction with life. Of course, this could be mitigated by additional responsibilities and other factors (Pinguart & Sörensen 2000).

2.7.5 Health factors

Governments and organizations have a recognized responsibility for the health of their citizens/staff, irrespective of the role of health in the PACE framework. But this is an area where circular causality can create a virtuous circle, where better health promotes higher SWB which in turn leads to better health.

2.7.5.1 Physical health

Poor self-rated health is negatively associated with SWB (but reverse causality could apply of course) and high self-rated health is positively associated with SWB (Helliwell et al. 2009). Longitudinal studies show that although there is a reverse causal effect, worsening of health results in lower SWB. Objective health measures also show a similar relationship, though not as strong, and disability is negatively associated with happiness and life satisfaction. Recent changes in perception of disability in the UK, for example, due largely to media coverage of the 2012 Paralympics, appear to have improved SWB of some disabled people, which once again demonstrates the key role of perceptions in SWB (Wood 2013). There is some suggestion that people adapt, psychologically, to long-term conditions, but this has not been proven. There is also strong evidence that SWB may itself be a factor in better health and reduction in serious illnesses (Steptoe et al. 2015).

2.7.5.2 Longevity

Health, as measured by life expectancy, is correlated with life satisfaction but not with affect. Does this suggest satisfaction with having a comparably long life combined with less happiness at living it? Do people experience less extremes of affect as they age? An elderly individual is more likely to suffer the death of a spouse, age-related illness and so on, which could, of course, have associations with increased transient negative affect. Veenhoven (2014) has suggested an index of 'happy life-expectancy' which combines life satisfaction and longevity measures at country level. Of course, this does not necessarily mean that individuals are living long and happy lives, but that overall, a proportion of the population are happy and a proportion live long – but they might not be the same proportion.

2.7.5.3 Physical activity

The frequency of physical activity is positively associated with SWB, reduced anxiety, lower incidence of depression, improved mood and greater psychological resilience (Malcolm et al. 2013).

2.7.5.4 Psychological health

Well-being and psychological health are very strongly associated and mental disorders almost always result in lower SWB (Diener & Seligman

2004). As discussed, it could be considered that mental disorder and low SWB are equivalent but some research suggests they are related but independent constructs (Keyes 2002).

2.7.5.5 Smoking

Several studies have demonstrated a negative association between smoking and SWB, although again the causal direction is probably two-way (Lawrence et al. 2013). On the other hand, Tan (2013) found that provision of smoking places promoted well-being through their function as social meeting places!

2.7.5.6 Sleep

Poor sleep has an association with reduced SWB (Kahneman et al. 2004), but the causal direction is not entirely clear.

2.7.5.7 Education

There is evidence of a positive association between years of education and SWB, both within countries (for example, Stutzer & Frey 2012) and between countries (for example, Mellander et al. 2012). Studies showing non-linear or negative associations can perhaps be explained by the mitigating effects of other variables such as social mobility which mitigate between educational longevity or level and SWB (Tov& Diener 2013). Veenhoven (2014) points out that correlation between education and life satisfaction are lower in rich nations so that educational effects are indirect and with different effects at an individual and national population level.

2.7.5.8 Caring for others

The amount of time spent caring for others is negatively associated with SWB, although Ratcliffe et al. (2013) found some positives, especially when carers were caring for spouses, and caring for children was more positive than negative.

2.7.6 Individual factors

Individual factors are the least amenable to government or organizational influence as age, for example, is not modifiable. However, as will be argued in more detail, it is possible and legitimate for governments and organizations to facilitate the development of positive propensities in their citizens/staff, which, as we have seen, is a major factor in how all causal factors, are perceived.

2.7.6.1 Age

The lowest age-related SWB appears to associate with middle age, between about 35 and 50 (Van Praag & Ferrer-i-Carbonell 2008).

2.7.6.2 Gender

Although Andrada (2015) found significant gender differences, with women being less satisfied with their lives than men, the impact of gender on SWB is still unclear as studies tend to find different variations in different countries, implying that national culture and practices are a major mitigating factor (Van Praag & Ferrer-i-Carbonell 2008). It is not so much that an individual's gender has an impact as that other people's, or society's, response to that individual's gender has an impact. The same may be found for ethnicity and perhaps sexual orientation.

2.7.6.3 *Ethnicity*

Here, effects such as lower SWB for African Americans are not generalizable and are most likely to do with country-specific factors. Once again, it is not so much that an individual's ethnicity has an impact as that other people's, or society's, response to that individual's ethnicity has an impact.

2.7.6.4 Materialism

Many studies reveal a negative association between materialist values and SWB and also between extrinsic (vs intrinsic) motivations and SWB (Dittmar et al. 2014).

2.7.6.5 Personality

Schotanus-Dijkstra et al. (2015) using the MHC-SF (Keyes 2002) Found that 37% of their sample were 'flourishing', that flourishing was more associated with eudemonic than hedonic results, that flourishing people had high levels of conscientiousness and extraversion but low levels of neuroticism and that flourishing was significantly related to positive life events and social support.

Various studies have found very strong links between extraversion, agreeableness, conscientiousness and openness to experience as correlated positively with SWB. However, neuroticism has a negative association (Rietveld et al. 2013).

As noted previously, the discipline of positive psychology postulates that positivism has a beneficial effect on SWB, and that this positivism can be facilitated and developed in normal people.

If, as we know, SWB is perceptual, then the individual's propensity for positivism has a large influence as a 'filter' in perceiving antecedent causal factors and, as will be seen below, it is a practical and legitimate goal for governments and organizations to help their citizens/staff to improve their positivism and therefore their SWB and engagement, in the same way that it is practical and legitimate to help improve constituent's physical health and well-being.

Headey and Wearing (1989) proposed a 'dynamic equilibrium' model where, although events and changes in circumstances can influence that individual's SWB, eventually the individual will adapt and return to a biologically determined 'set point' or level of adaption. More recent work suggests that this 'set point' is not entirely biologically determined (also see next section), with as much as 50% due to either extrinsic circumstances (objective factors) or non-genetic predispositions toward, for example, optimism. Even genetically predisposed tendencies such as extraversion (which correlates with positive affect) and neuroticism (which correlates with negative affect) can be modified by, for example, increasing optimism through modifying explanatory thinking style (see Attribution Theory below). Diener et al. (1999) found that optimism, internal locus of control (the belief that one has control over his or her life) and self-esteem all correlated significantly with SWB and are all modifiable traits.

2.7.6.6 Genetic heritability

Heritability is an extremely important causal factor as it is not amenable to modification or facilitation by governments or organizations. So, for example, if a person's propensity for positivism explained a large part of SWB and if personality traits explained a large part of those propensities and heritable/genetic factors explained a large part of relevant personality factors, then there would be little room for governments and organizations to intervene. This section therefore deals with related research in some detail.

Heritability estimates for effect on satisfaction with life and positive affect range from 36% to 56% (Keyes et al. 2010) with little evidence of strong mitigating effects of family environment. Keyes et al. (2010) in a study of over 300 US twins investigated measures of the three types of subjective well-being, the hedonic emotional well-being and the eudemonic psychological and social well-being. For emotional well-being, the measure included positive affect frequencies (how often in the last 30 days have you felt calm and peaceful/cheerful/extremely happy/in

good spirits/satisfied/full of life) as well as a global 'rate your life overall' 0-10. The scales were simply added together.

For psychological well-being, the scales (again simply added) included:

- Self-acceptance: 'I like most parts of my personality'.
- Positive relations: 'maintaining close relationships has been difficult for me'.
- Personal growth: 'for me, life has been a continual process of learning, changing and growth'.
- Purpose: 'when I look at the story of my life, I am pleased with how things have turned out so far'.
- Mastery: 'I am good at managing the responsibilities of daily life'.
- Autonomy: 'I have confidence in my own opinions, even if they are different to the way other people think'.

Social well-being was assessed as:

- Social acceptance: 'I believe that people are kind'.
- Social growth: Society is becoming a better place for everyone'.
- Social contribution: 'I have something valuable to give to the world'.
- Social coherence: I try to think about and understand what could happen next in our country.
- Social integration 'I feel close to other people in my community'.

Keyes et al. (2010) found a 72% heritable latent propensity toward mental well-being overall and over 50% heritable for each of emotional, psychological and social components, with no evidence for environmental (familial) influence overall but substantial environmental influence on emotional and social well-being. Keyes stresses the interaction between heritability and environment suggesting that the traits associated with social and emotional well-being (for example, compassion, altruism and extraversion) and the environmental qualities conducive to well-being (for example, openness and trust) could be investigated to help those with low innate propensity for well-being.

A possible explanation of this genetic propensity is a serotonin transporter gene, SLC6A4, one version of which is more efficient and could have links to inmate optimism and ability to deal with stress.

Other studies, though, have suggested that the genetic effect is entirely due to indirect genetic influence on personality factors, which in turn affect SWB.

As if genetics wasn't enough, recent review of the evidence to date found that 'our emotions, cognition, behaviour, and mental health are influenced by a large number of entities that reside in our bodies while pursuing their own interests, which need not coincide with ours. Such 'selfish' entities include microbes, viruses, foreign human cells, and imprinted genes regulated by virus-like elements' (Kramer & Bressan 2015: 3). Their conclusions were that:

- 1. Gut and brain microbes can alter behaviour.
- 2. Ancient viral DNA is implicated in mental disorders.
- 3. Virus-like elements interfere with maternal and paternal inherited genes to cause opposite physical and behavioural effects.

These 'selfish entities' (Kramer & Bressan 2015) impact behaviour as shown in Table 2.11.

Table 2.11 'Selfish entities' interaction with humans and illustrative examples of behavioural changes

	Associated behavioural changes
Brain microbes	Reckless behaviour (associated with workplace and traffic accidents – possibly because it renders one less careful and slows down reaction time), depression, suicides, changes in personality, and various mental and neurological diseases, including bipolar and obsessive-compulsive disorders. Largest risk factor for schizophrenia.
Gut microbes	Some strains (for example, probiotics): improvement in mood, reduction in depression and anxiety symptoms, possible memory improvement.
Exogenous viruses	Maternal cytomegalovirus: schizophrenia in carriers of common gene variant.
Endogenous viruses	If reactivated by common pathogens: bipolar disorder, schizophrenia.
Foreign human cells (for example, from mother)	Maternal antibodies: neurodevelopmental disorders (for example, autism, dyslexia).
Imprinted genes	Dis-regulation: autism (repetitive behaviours, and reduced social and communication skills and interests) or psychosis-spectrum disorders (reduced emotional expression, lack of motivation, and social withdrawal), and disorganization).

Source: After Kramer and Bressan (2015: 5).

In the context of this book, these areas of genetic causality are of interest if they enable some kind of action. A major issue in this regard is that many genes appear to have small additive effects, rather than a few genes having large effects (Pluess 2015). This makes it difficult to devise psychological interventions based on an understanding of the interactions between heritable and environmental factors and/or how to mitigate heritable effects. Pluess (2015) suggests that a greater understanding of the biological mechanisms involved will allow 'The development of psychological as well as pharmaceutical treatments aimed at promoting well-being, personalized suggestions aimed at maximizing well-being...based on an individual's genotype as well as...taking an individual's genetic sensitivity to specific environmental influences or particular forms of psychological intervention into account' Pluess (2015: 272). Although medical practice tends to focus on treatment of disorders (including mental), rather than improving 'normal' function, it may be that as understanding grows, the standard of 'normal' wellbeing will gradually raise so that what today would be seen as a normal level of SWB, will be seen in the future as dysfunctional and a valid target for treatment, even pharmaceutical.

2.8 Homeostasis

Interestingly, most people rate themselves fairly positively on life satisfaction. In highly developed countries, the mean score is around 75 (out of 100) and even the lowest countries rate themselves above 50 (Cummins 2003). Is self-rated life satisfaction subject to a homeostatic process where, much like happiness, even after extreme positive or negative events, SWB returns to a somewhat positive level? As early as 1971, Brickman & Campbell (1971), proposed that individuals adapt quickly to changes in their lives and return to their baseline levels of happiness on a 'hedonic treadmill'. Headey & Wearing (1989) proposed a theory of dynamic equilibrium where SWB is impacted by events but quickly returns to a biologically determined norm. Similarly, the theory of chronic happiness (Lyubomirsky et al. 2005) suggests that happiness levels tend to return to a predetermined norm. In terms of positive affect, there are two potential reasons, first because humans have an underlying propensity to oscillate around a mean of happiness or second because the scales used to assess happiness and life satisfaction are bounded Likert scales and the construct is somewhat related to expectations. So, if today, I were objectively at a happiness level of say 7 (high), then I would expect to be similarly high tomorrow – so my reference point or norm is today's

level of happiness. If I felt more happy the next day then (1) I can't score any higher than 7 and (2) my expectations might mean that I might rate this higher level of happiness as, say, a 5 compared to my new norm. Allin and Hand (2014:15) suggest that well-being and happiness follow this kind of homeostatic process.

Measuring well-being 2.9

2.9.1 Measures of objective well-being

Objective measures (such as quality of housing or national income) do not directly measure well-being, they measure causal factors, which have been demonstrated statistically to have an association with some measure of SWB or are sometimes assumed to have a relationship. Despite this, these kinds of measures have two potential values. Firstly, the factor may reflect the delivery of some kind of government or organizational service or provision, so it is a useful feedback to the provider or manager of that service, irrespective of its proven or assumed contribution to well-being per se. So, for example, a measure of national or organizational health is of value to those charged with managing and delivering health services for the country or the organization, so the measure is useful in its own right. Secondly, if there is a proven causal link with demonstrable weighting, compared to other factors, then the indirect measure may well also tell us something about the resulting levels of well-being and, more importantly suggest what to do about it.

2.9.2 Measures of subjective well-being (SWB)

One of the earliest and still used (for example, in the Gallup World Poll) measures of well-being is the Cantril (1965) Ladder of Life Scale which simply asks the individual to place themselves on an imaginary ladder of ten steps, where the top represents the best possible life for the individual and bottom represents the worst possible life at this time. Interestingly, given that perceptions about one's own well-being are unlikely to be based on evidence, analysis or structural models, it may be that these single-item scales may actually reflect a person's true perceptions of their own SWB better than some multi-item instruments based on complex structural models of well-being, its components and its antecedents. On the other hand, given an objective to improve SWB, then the single-item scales cannot easily be used to drive actions but do provide comparisons with other demographics (nations, organizations, cultures and individuals).

The World Values Survey (www.worldvaluessurvey.com), for example, contains the question 'All things considered, how satisfied are you with vour life as a whole these days?' This has been criticized as being heavily impacted by current mood, thereby reflecting short-term affect rather than any kind of stable SWB. Anusic et al. (2012) found that measures of life satisfaction were influenced by mood or event changes over a single week, with changes in effect being even more variable, but personality traits being relatively stable. They suggest that personality measures seem to be trait-like over two months whereas a retest interval of one week would be appropriate for measures of life satisfaction and affect. Another criticism levelled by Huppert (2014) is that life satisfaction scores are relatively stable, and trait-like but reflect the individual's self-image or aspiration, rather than their real feelings, where, for example, 'few people like to think they are the sort of person who is generally dissatisfied' Huppert (2014: 9). This stable trait argument is challenged by Anusic et al's (2012) findings of course. Huppert (2014) notes three further issues with comprehensibility, complexity and congruence. In terms of comprehensibility, when tested many respondents didn't understand what was meant by 'satisfied' raised questions around comparativeness, in particular, compared to who? So, for example, some may judge that they are very satisfied with their life compared to people suffering real horrors or compared to people in a similar situation to themselves. Once again though, the ambiguity of the question allows the respondent to reflect whatever comparator s/he uses in their personal evaluation – so it may be an accurate representation of their ambiguous perception. The issue of complexity is that, to evaluate satisfaction with any accuracy requires an evaluation of all aspects of one's life as well as some kind of weighting of all these different factors and the rating will encapsulate some kind of rating of perceived reality vs expectation. Huppert (2014) gives the example of a highly beneficial government intervention which results in no change in satisfaction because expectations change in line with the intervention. For example, if ambulance response times improve, then people's expectations will also quickly change. However, if we are interested in the respondent's self-perception of life satisfaction then the answer is correct and accurate - my life satisfaction is indeed the same, even though conditions have improved, because my expectations have also changed. Although if we were trying to measure some kind of reality or credible evaluation, then we wouldn't use such a question. More concerning is the claim that life satisfaction results do not correlate with other factors which we know matter a great deal in terms of well-being. On the one hand, Huppert & So (2013) found low

correlations between items such as 'having a sense of meaning in one's life' and 'good relationships' with life satisfaction. On the other hand, these low correlations were all positive (the right direction) with the most significant correlation being positive emotion. They also found some, but not complete, overlap between life satisfaction and 'flourishing', suggesting they were related but not identical constructs. Even so, 'measures of life satisfaction may be useful in their own right as an overall evaluation' Huppert & So (2013).

Diener et al. (2013) found that single-item life satisfaction scales validly reflected:

- Differences between nations with different objective conditions,
- Differences between groups in different circumstances,
- Correlations with other non-self-report measures,
- Genetic and psychological associations,
- · Changes in significant life events, and
- Predictions of future actions, such as suicide.

They acknowledge that life satisfaction scales can be influenced by mood, question order and so on but suggest these influences can be controlled. Life satisfaction scores can be used to assess specific policy decisions, for example, investing in transport or local office provision where life satisfaction has been shown to be lowered where people have to commute long distances (Diener et al. 2013).

The measurement approach to well-being depends entirely on the purpose. So, for example, if the purpose is to compare countries at a coarse level and perhaps to correlate many different variables (for example, the World Values Survey), then a single-item life satisfaction measure may be appropriate. If the objective is to help individuals to improve their own SWB then a different measure will be appropriate. If the objective is to carry out academic research into precise formal relationships between hypothesized antecedents and outcomes, then yet another kind of instrument may be required. A recent innovative example is Hills et al. (2015) who used 'big data' and sentiment analysis techniques to analyse millions of books from the 18th century to the 20th century in order to establish relationships between wars, unrests and GDP changes with reflections of subjective well-being in texts.

There are, as Huppert (2014) notes, numerous potential instruments all developed by different researchers and all predicated on different underlying conceptualizations of SWB or 'flourishing'. Huppert (2014) claims that one solution to this is to develop an objective method to

define the key components and cites Huppert & So (2013) as just such an attempt. But it is clear that all the alternative models would claim equally rigorous theoretical foundations (and the main models have identified broadly similar components). Secondly, Huppert (2014) suggests gaining an expert consensus and cites the New Economic Foundation as being a possible facilitator of such a consensus. However, the history of academic theorists and researchers achieving a consensus is not encouraging and, of course, any institution, including the New Economic Foundation, is not free from a specific political or social agenda as well as a particular theoretical perspective. The New Economics Foundation publishes the Happy Planet Index (Abdallah et al. 2012), for example, which combines life satisfaction with life expectancy and a calculation of ecological footprint to produce 'Happy Life Years' as a key measure of well-being at national level. This particular set of assumptions about what causes well-being can result in countries with the most inequality and inward worker remittances having the highest Happy Planet scores, while those with low inequality, low worker remittances and high military expenditure have the lowest scores (Tausch 2011). This is a good example of a score being entirely suitable in stressing factors that one entity considers of interest, while not meeting the needs and indeed assumptions of others. Bhutan, for example, does not measure 'happiness' itself but the assumed causes of happiness, described as the four pillars: sustainable development, cultural values, the natural environment and good governance.

Other instruments, such as Seligman's (2012) PERMA scale, provide a 'dashboard' of individual measures for specific components of SWB arguing that there is no value in providing a composite scale as it would not provide actionable information or have any explanatory value, would depend on arbitrary (probably equal) weighting and would conflate variables which are independent (a bit like adding speed to number of wheels to describe a vehicle in one composite number). A widely accepted, if criticized, composite number is GDP, which is of no help in guiding interventions and whose composition is widely argued, but at least has the merit of being composed of variables of the same unit of measurement that is money. Combining well-being variables with no common unit of measurement cannot be valid whereas, of course, a single factor measure, such as life satisfaction, does not suffer from the aggregation issue.

A third recommendation (Huppert 2014) is to carry out factor analysis and other statistical tests such as item response theory (IRT) on very large population samples to establish a robust factorial structure and demonstrable reliability for the smallest sensible number of differentiating

items. This approach would assume some consistency of factor influence across populations whereas research shows that the strength and composition of key factors varies between individuals and over time, never mind across a whole population.

The issue of explanatory value is illustrated by Huppert & So (2013) who compare the ten components of flourishing across 22 European Nations. France has tended to score low on life satisfaction indexes despite its relative prosperity. However, at a component level, it scores very high on engagement but very low on self-esteem, optimism and positive relationships. Spain, on the other hand, scored high on selfesteem but low on competence and vitality. The UK, with similar life satisfaction scores to Spain, scored high on positive relationships but lower on engagement. In these cases, the composite 'dashboard' results are far more informative than the single-item life satisfaction score. Simply adding the scores to create a composite would make no real sense as there is no way of knowing whether a 5 for emotional stability (essentially an ordinal estimate in 'units' of emotional stability) has any relationship to a 5 for competence (an ordinal estimate in 'units' of competence). Social scientists have long accepted the pragmatic, but not strictly correct, treatment of Likert type scales as if they were interval numbers, amenable to statistical calculation (and in that context able to be validated using Cronbach's alpha).

2.9.3 Issues with measurement

However, careful treatment is merited (as discussed in more detail below), considering that:

- In a Likert Scale an individual's score of 4 may not represent twice the magnitude as the same individual's score of 2.
- One individual's score of 4 may not be equivalent, mathematically, to another individual's score of 4. On a Likert scale, respondents will score the same level of intensity differently to each other.
- Although a set of Likert scales use the same numbers (for example, 0-7), the actual units they are measuring are ill-defined and different to each other. For example, the level of agreement that 'my company looks after people' (an ordinal estimate of 'looking after') vs the level of agreement that 'life is good these days' (an ordinal estimate of 'life's goodness'). The different scales with their different units of interest should only be manipulated or formulated with great care, in the same way that it would not generally be appropriate to add a figure in miles to a figure in tons and express the answer as height.

2.9.4 Common measures of subjective well-being

Some of the common single-item SWB questions are given below.

2.9.4.1 Single-item measures

2.9.4.1.1 Life satisfaction

'All things considered, how satisfied are you with your life as a whole nowadays'. (Scale from 1 dissatisfied to 10 satisfied)

2.9.4.1.2 Overall happiness

'Taking all things together would you say you are?' (1 very happy through to 4 not at all happy).

2.9.4.1.3 Happiness in the past

'How much of the time during the past week were you happy?' (On a scale of 1–4).

2.9.4.1.4 Cantril's ladder

'Please imagine a ladder, with steps numbered from 0 at the bottom to 10 at the top. The top of the ladder represents the best possible life for you and the bottom of the ladder represents the worst possible life for you. On which step of the ladder would you say you personally feel you stand at this time?' This is an interesting question as it implies some kind of progression to an ultimate happiness.

2.9.4.2 Multi-item measures

2.9.4.2.1 Satisfaction with Life Scale

Developed by Diener et al. (1985) comprising five questions, rated from 1 strongly disagree to 7 highly agree:

- In most ways my life is close to my ideal.
- The conditions of my life are excellent.
- I am satisfied with my life.
- So far I have gotten the important things I want in life.
- If I could live my life over, I would change almost nothing.

2.9.4.2.2 Domain specific well-being

In these instruments, overall life satisfaction is deconstructed into satisfaction in various specific domains, for example, from the United States General Social Survey:

Overall happiness – Taken all together, how would you say things are these days – would you say that you are very happy, pretty happy, or not too happy?

Financial: We are interested in how people are getting along financially these days. So far as you and your family are concerned, would you say that you are pretty well satisfied with your present financial situation, more or less satisfied, or not satisfied at all?

Employment: Asked of persons currently working, temporarily not at work, or keeping house. On the whole, how satisfied are you with the work you do - would you say you are very satisfied, moderately satisfied, a little dissatisfied, or very dissatisfied?

Family life: Tell me the number that shows how much satisfaction you get from that your family life (ranging from 1 a very great deal, through to 7 none)

Health: Tell me the number that shows how much satisfaction you get from that your health and physical condition (ranging from 1 a very great deal, through to 7 none)

2.9.4.2.3 Day Reconstruction Method (DRM)

The DRM asks respondents to keep a diary about yesterday describing episodes of about one hour duration (Kahneman et al. 2004). The DRM starts with general questions including overall and domain specific life satisfaction questions:

- Taking all things together, how satisfied are you with your life as a whole these days?
- Overall, how satisfied are you with your life at home?
- Overall, how satisfied are you with your present job?
- When you are at home, what percentage of the time are you: in a bad mood, a little low or irritable, in a mildly pleasant mood, in a very good mood?
- When you are at work, what percentage of the time are you: in a bad mood, a little low or irritable, in a mildly pleasant mood, in a very good mood?

Then the diary episodes are reviewed by the respondent to describe how they felt during each episode (on a scale from 1 not at all to 6 very much)

2.9.4.2.4 Scale of Positive and Negative Experience (SPANE)

SPANE is a similar event recall method. Developed to measure the balance between experienced positive and negative affect (Diener et al. 2010). SPANE is a 12-item Likert scale with six items assessing positive experiences and six items assessing negative experiences over the

Table 2.12	Feelings about of	diarized o	episodes
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For each episode:	Not at all	Very much
Impatient for it to end	0	6
Нарру	0	6
Frustrated/annoyed	0	6
Depressed/blue	0	6
Competent/capable	0	6
Hassled/pushed around	0	6
Warm/friendly	0	6
Angry/hostile	0	6
Worried/anxious	0	6
Enjoying myself	0	6
Criticized/put down	0	6
Tired	0	6

Source: After Kahneman et al. (2004).

previous four weeks, including three general and three specific items per sub-scale.

Please think about what you have been doing and experiencing during the past four weeks.

Then report how much you experienced each of the following feelings

- Positive
- Negative
- Good
- Bad
- Pleasant
- Unpleasant
- Happy
- Sad
- Afraid
- Joyful
- Angry
- Contented

2.9.4.2.5 Pemberton Happiness Index (PHI)

A 21-item scale evaluating remembered and experienced well-being in various life domains, including hedonic, eudemonic, social and general well-being, as well as positive and negative affect (Hervás & Vázquez 2013).

Table 2.13 Pemberton happiness index items

Domains and subdomains	Item content	
Remembered well-being		
General well-being	I am very satisfied with my life I have the energy to accomplish my daily tasks	
Eudemonic well-being	r y wy y	
Life meaning	I think my life is useful and worthwhile	
Self-acceptance	I am satisfied with myself	
Personal growth	My life is full of learning experiences and	
C	challenges that make me grow	
Relatedness	I feel very connected to the people around me	
Perceived control	I feel able to solve the majority of my daily problems	
Autonomy	I think that I can be myself on the important things	
Hedonic well-being	, , ,	
Positive affect	I enjoy a lot of little things every day	
Negative affect	I have a lot of bad moments in my daily life	
Social well-being	I think that I live in a society that lets me fully realize my potential	
Experienced well-being	• •	
Positive experiences	Something I did made me proud	
	I did something fun with someone	
	I did something I really enjoy doing	
	I learned something interesting	
	I gave myself a treat	
Negative experiences	At times, I felt overwhelmed	
	I was bored for a lot of the time	
	I was worried about personal matters	
	Things happened that made me really angry	
	I felt disrespected by someone	

Source: After Hervás & Vázquez (2013: 9).

2.9.4.2.6 Warwick-Edinburgh Mental Well-Being Scale (WEMWBS) Asks, over the past two weeks:

- I've been feeling optimistic about the future (1 none of the time 5 all of the time)
- 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

2.9.4.2.7 The General Health Questionnaire (GHQ)

Was developed to help detect psychiatric disorders in community and clinical settings. For well-being the scores are inverted so that it is treated as a measure of well-being, assuming it is the opposite end of a continuum from mental disorder, and specifically depression. The scoring is along a scale from 'better/healthier than normal', 'same as usual', 'worse/more than usual' to 'much worse/more than usual' on the following dimensions:

- · Feeling unhappy
- Thinking of self as worthless
- Losing confidence
- · Feeling unhappy and depressed
- Could not overcome difficulties
- Capable making decision
- Face up problems
- Able to concentrate
- Enjoy normal activities
- Play useful part in things
- Under strain
- Lost much sleep

2.9.4.2.8 Centre for epidemiological studies depression (CES-D) scale Measures levels of depression including positive and negative questions on affective state in the following symptom groups:

- Sadness(Dysphoria): Question numbers 2,4, 6
- Loss of Interest(Anhedonia): Question numbers 8, 10
- Appetite: Question numbers 1, 18
- Sleep: Question numbers 5, 11, 19
- Thinking/concentration: Question numbers 3, 20
- Guilt(Worthlessness): Question numbers 9, 17
- Tired(fatigue): Question numbers 7, 16
- Movement(Agitation): Question numbers 12, 13
- Suicidal ideation: Question numbers 14, 15

2.9.5 Pan-national comparative surveys of well-being

2.9.5.1 The World Values Survey (WVS)

The WVS is taken every five years across 40 countries. Amongst a large number of items covering everything from religious affinity to family circumstances, it asks 'all things considered, how satisfied are you with

your life as a whole nowadays?' (Scale from 1 dissatisfied to 10 satisfied) and 'Taking all things together would you say you are?' (1 very happy through to 4 not at all happy). It is widely referenced and analysed due to its coverage and large number of comparable items.

2.9.5.2 OECD Better Life Initiative

The Better Life Initiative is a very interesting new interactive web-based tool which allows individuals to set their own weights on 11 dimensions of OECD well-being indicators and 'to see how countries' average achievements compare based on one's own personal priorities in life, and to share one's index and choices of weights with other people in their networks' OECD (2013b). The OECD bases its method on a capabilities view (Sen 1993; Scott-Jackson et al. 2011) where what people can do (their capabilities) is combined with the degree to which they can choose which capabilities matter. This approach recognizes the importance of the weightings applied to variables in calculating any aggregated measure of SWB and also recognizes the SWB effects of allowing people to engage. Forty-four thousand indexes had been shared by 2013, and these showed that overall, life satisfaction, health and education were the most important dimensions of life. It could be argued that this overall finding is much less interesting than the details for individual countries and demographics. The OECD Better Life Initiative does include many objective factors, but these are assessed as outcomes (for example, satisfaction with water) rather than inputs (for example, how many miles of water pipe were laid). The 11 dimensions included in the OECD Better Life Index are:

- 1. income and wealth:
- 2. jobs and earnings;
- 3. housing;
- 4. health status;
- 5. work-life balance;
- 6. education and skills;
- 7. social connections:
- 8. civic engagement and governance;
- 9. environmental quality;
- 10. personal security;
- 11. subjective well-being.

The OECD also enables countries to modify the dimensions to suit their own needs, where, for example, Italy includes a 12th dimension of 'culture'.

The ability of individuals to enter their own data provides an everincreasing databank but needs to be used with caution as, for example, 'jobs' is the most important dimension in Oman and Saudi Arabia but with only 12 and 78 responses respectively.

Overall, an extremely powerful methodology using modern data collection, big data, techniques and providing an ever more useful body of data as well as a good model for local national and organizational well-being measures.

2.9.5.3 European values survey (EVS)

The EVS is taken every nine years and covers over 20 European countries (the version used by Huppert & So 2013 comprised 22 countries). Similar to the WVS, amongst a large number of items covering everything from religious affinity to family circumstances, it asks 'all things considered, how satisfied are you with your life as a whole nowadays?' (Scale from 1 dissatisfied to 10 satisfied) and 'Taking all things together would you say you are?' (1 very happy through to 4 not at all happy).

2.9.5.4 The Eurobarometer

A survey of 300,000 people in 12 European countries based on home-interviews and including the question 'On the whole, are you very satisfied, fairly satisfied, not very satisfied or not at all satisfied with the life you lead?'

2.9.5.5 The Gallup World Poll

A worldwide survey, including Cantril's ladder: 'Please imagine a ladder, with steps numbered from 0 at the bottom to 10 at the top. The top of the ladder represents the best possible life for you and the bottom of the ladder represents the worst possible life for you. On which step of the ladder would you say you personally feel you stand at this time?'

2.9.5.6 The international social survey program (ISSP)

The ISSP is an annual set of national surveys covering 41 countries and focused on social science research questions. It includes 'If you were to consider your life in general these days, how happy or unhappy would you say you are, on the whole?' (On the scale: 4 very happy, 3 fairly happy, 2 not very happy and 1 not at all happy).

2.9.5.7 The US general social survey (GSS)

The GSS samples around 30,000 United States residents annually, including the question 'Taken all together, how would you say things

are these days? Would you say you are ...?' (Very happy=3, Pretty happy = 2, Not too happy = 1).

2.9.5.8 The European Social Survey (ESS)

The ESS covers 20 countries by interview. It includes the question: All things considered, how satisfied are you with your life as a whole nowadays? (0 means extremely dissatisfied and 10 means extremely satisfied). It also includes 'Taking all things together, how happy would you say you are?' (On a scale of 0-10).

In 2006/2007, it included a well-being module where it asked over 50 detailed questions about components of well-being, including 'How much of the time during the past week were you happy?' (On a scale of 1–4).

In 2012 (ESS6), it also included a set of well-being measures such as 'How much of the time in the last week did you feel depressed?' (1 none of the time to 4 all of the time)

2.9.5.9 The German socio-economic panel (GSOEP)

The GSOEP covers 24000 members of 11,000 households by interview. Variables include household composition, employment, occupations, earnings, and health and satisfaction indicators. It includes a wideranging question 'how satisfied are you with the following areas of your life?' including health, sleep, job and so on. Also 'how often have you felt... (angry, worried, happy, sad) in the past four weeks?'

2.9.5.10 The British Household Panel Survey (BHPS) – now called 'understanding society'

Follows the same sample over time and is therefore suitable for longitudinal causal analysis, interviewing all members of households. Includes: 'How satisfied are you with your life overall?' (using a response scale of 1 'not satisfied at all', to '7 completely satisfied') and 'Would you say that you are more satisfied with life, less satisfied, or feel about the same you did a year ago?'.

There are many more measures in use at national, pan-national and global levels, in addition to well-being questions included in many organizational annual surveys (which often also include engagement assessment and will be discussed below). There is a huge amount of data available for analysis and mostly freely available from the providers.