

# 25 Life satisfaction and emotional well-being: psychological, economic and social factors

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TOMMY GÄRLING AND AMELIE GAMBLE

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### LEARNING OUTCOMES

#### BY THE END OF THIS CHAPTER YOU SHOULD BE ABLE TO:

1. Distinguish subjective well-being from material wealth and national social indicators.
2. Explain the advantages and disadvantages of different methods of measuring subjective well-being.
3. Understand how subjective well-being interacts with individual factors (personality, goal pursuit), economic factors (income, consumption), and social factors (relationships with family, friends, and romantic partners).

## 25.1 INTRODUCTION

An impression conveyed by the mass media is that people in affluent societies are not as happy and satisfied with their lives as one would expect them to be. Scientific research both supports and does not support this impression. It also disentangles many of the factors explaining why people are satisfied or dissatisfied. But why is it important to do this? An answer is that most people desire to be satisfied with their lives and want to know what makes them satisfied. Being satisfied with one's life has also important consequences for health, longevity, and success in life. Public health policies should therefore also be informed by scientific knowledge about life satisfaction.

In public health disciplines and politics, the broad term *well-being* is used. In Section 25.2, this chapter first contrasts the conventional well-being construct in economics to the chapter's main topic: the constructs of life satisfaction and emotional well-being developed in psychology. An umbrella term used in psychology is *subjective well-being*. In economics, the term *happiness* is currently used to refer to essentially the same construct.

All scientific research needs to develop methods for measuring the phenomena it aims to study. Measuring life satisfaction and the complementary construct of emotional well-being may appear insurmountable, however, the scientific evidence is that it is feasible. In Section 25.3, the different methods for measuring subjective well-being are described. The chapter ends with one section reviewing factors that influence subjective well-being and another reviewing what is known about its different consequences.

## 25.2 VIEWS OF WELL-BEING IN ECONOMICS AND PSYCHOLOGY

In economics, material wealth is the dominant objective indicator of well-being (Perlman & Marietta, 2005). It is assumed to be positively related to utility which is the term traditionally used for well-being. Happiness has later become a more commonly used term (Frey, 2008). A positive relationship between material wealth and utility or well-being depends on markets offering goods and services that citizens are able to consume so that they maximize their utility (or happiness).

If material wealth has the important role that it is supposed to have at the citizen level, this justifies use of economic national indicators for assessing the state of well-being of a country. The Gross Domestic Product (GDP) per capita is one such indicator but many others have been developed (e.g., income, spending, assets), are standardized and used in many countries. A general criticism of GDP as summarized in Van den Berg (2009) is that it provides limited information about citizens' well-being. A similar reason noted by others (Diener & Seligman, 2004) is that economic indicators exclude many potentially important factors, for instance, social capital, environmental pollution, and fair and effective government. Another criticism is methodological (Angner, 2009). Obtaining the indicators requires data collected by means of surveys known to be susceptible to various errors.

Social national indicators are used to complement economic indicators. The rationale is that such indicators assess life circumstances that are important for citizens' well-being (Dolan & White, 2007). The selection of indicators would optimally be based on theory. One proposed theoretical framework implies that capabilities (e.g., education, health) need to be provided for people to achieve a good life (Nussbaum, 2011). Related to this framework the *Human Development Index* was developed by United Nations to be used in international comparisons. In many countries around the world, different systems of social national indicators have been proposed to make possible the monitoring of citizens' well-being. Diener et al. (2009, p. 25) give examples of proposed social indicators in seven different domains: (1) food, housing, income; (2) longevity; (3) work; (4) safety; (5) friends and family, education, neighborhood; (6) ability to help others; and (7) well-being from religion, spirituality or philosophy) based on the 'capabilities approach'. Subjective well-being (life satisfaction, happiness, domain satisfaction) can be added to these domains.

Economic and social indicators were developed to meet the need for objective measures. The argument (substantiated in Section 25.3) is that an objective measure of subjective well-being is feasible. What are the advantages of such a measure? Subjective well-being as measured in populations of citizens tends to correlate with economic and social indicators, but also captures something beyond these indicators (Diener, Lucas, Schimmack, & Helliwell, 2009). Subjective well-being measures may thus provide information about what the objective indicators miss. They may also inform improvements of public goods and services. For instance, if such improvements involve tradeoffs, subjective well-being measures would help to determine the relative importance of different indicators. Finally, subjective well-being is in itself a goal both at the societal and citizen level.

## 25.3 MEASUREMENT OF SUBJECTIVE WELL-BEING

It seems simplistic to directly ask people themselves to report how satisfied they are with their lives. Yet, with minor modifications, self-report measures have in research proved to be of value. A distinction was made early on between a cognitive judgement of life satisfaction and recall from memory of positive and negative affect experienced in the past (Busseri & Sadava, 2011). The former is referred to as *life satisfaction* and the latter as *emotional well-being* or *affect balance*. Box 25.1 describes how life satisfaction is measured in questionnaires.

A measure of the affect balance is similarly obtained by means of self-report questionnaires (see the example in Pavot, 2008) in which people are asked to think of what they have been doing and experienced during the past four weeks (or any other specified past period or simply 'recently') and then to rate on a graded scale how frequently they have felt positive and negative evaluations or emotion states described by, for instance, the adjectives good, bad, glad, sad, agitated or relaxed. Duration may be rated instead of frequency. Sometimes ratings of intensity are combined with the ratings of frequency or duration but are usually omitted because the variation in intensity tends to be low (Diener, Larsen, Levine, & Emmons, 1985). The affect balance is

### Box 25.1 Are you happy? measurement of life satisfaction

Several methods of measurement that have been developed all converge on defining life satisfaction as a cognitive evaluation or judgement of how satisfying one's life is. They differ in whether participants answer a single question or several questions. They also differ in how participants are requested to answer the question(s). Frequently used methods include the *Ladder of Life Scale* used in the Gallup World Poll ([www.gallup.com/services/170945/world-poll.aspx](http://www.gallup.com/services/170945/world-poll.aspx)). In this method, participants are requested to say where they currently stand on 11 steps of an imaginary ladder with the lowest step representing the worst possible life for oneself and the highest step representing the best possible life for oneself.

In the *World Values Survey* ([www.worldvaluessurvey.org](http://www.worldvaluessurvey.org)) repeatedly conducted in over 100 countries, two separate questions are asked: 'All things considered, how satisfied

are you with your life as a whole these days?' requesting a rating on a 10-point scale ranging from 1 (feeling completely dissatisfied) to 10 (feeling completely satisfied) and 'Taking all things together, would you say you are. . .' requesting that participants answer 'Very unhappy', 'Somewhat unhappy', 'Somewhat happy' or 'Very happy'.

Diener, Emmons, Larsen and Griffin (1985) developed the five-item *Satisfaction with Life Scale (SWLS)* which subsequently has been used in a large number of research studies. Participants are asked to rate on seven-point scales the degree to which they agree with the five statements, 'In most ways my life is close to my ideal', 'So far I have achieved the important things I want in life', 'The conditions of my life are excellent', 'I am satisfied with my life', and 'If I could live my life over again, I would change almost nothing'. A life satisfaction score is obtained by summation.

obtained after summation of the positive evaluations or emotion states with a positive sign and the negative evaluations or emotion states with a negative sign.

An alternative way of measuring emotional well-being during a past time interval is to aggregate recurrent reports of how positive or negative one feels at the moment (Kahneman, 1999). This method minimizes forgetting to which life-satisfaction judgements and recall of affect are susceptible. It is as yet a method that has been used infrequently. This may change since currently large-scale studies are under way (e.g., Killingsworth & Gilbert, 2010) that use smartphones to ask people questions about how they feel at the moment and what may be causing this feeling.

A criticism of the affect balance is that it only taps hedonic aspects of emotional well-being, whereas aspects such as purpose of and meaning in life should also be important. These latter aspects are referred to as *psychological flourishing*. The point of departure for Diener et al. (2010b) in developing a new self-report scale that assesses psychological flourishing (see Table 25.1) was that universal psychological needs for self-determination, competence, and relatedness must be fulfilled for people to be satisfied with their lives (Ryan & Deci, 2000).

It is assumed that life-satisfaction judgements are primarily related to stable life circumstances (see Section 25.4). As one should expect, life-satisfaction judgements have therefore been found to be relatively stable over time (Eid & Diener, 2004). It has also been found that life-satisfaction judgements are related to satisfaction with different

**Table 25.1** *Statements in the Flourishing Scale*

I lead a purposeful and meaningful life
My social relationships are supportive and rewarding
I am engaged and interested in my daily activities
I actively contribute to the happiness and well-being of others
I am competent and capable in the activities that are important to me
I am a good person and live a good life
People respect me
I am optimistic about my future

*Note:* Each statement is rated on a scale from 'strongly disagree' (1) to 'strongly agree' (7) and then summed to a total score.

*Source:* Adapted from Diener et al., 2010b, pp. 154–155.

domains of life such as family life, social life, work, and recreation (Schimmack, 2008). An additional issue that has been raised is how life-satisfaction judgements are related to the affect balance (Kim-Prieto, Diener, Tamir, Scollon, & Diener, 2005). A modest positive correlation is usually found in empirical studies. Situational factors, such as, for instance, the current weather are expected to influence and have been shown to influence positive or negative affect but not to the same extent life-satisfaction judgements (Eid & Diener, 2004). A way of accounting for the positive correlation between life-satisfaction judgements and the affect balance is that the possession of material resources, which is a primary basis of life-satisfaction judgements, buffers the frequency of negative affect (e.g., worries) in everyday life (Kahneman & Deaton, 2010). Alternatively, thinking of material (as well as less tangible) possessions may increase positive affect (Gärling & Gamble, 2012). Both the measures of life satisfaction and affect balance have been found to have acceptable reliability (Diener et al., 2009). Reliability of a measurement method is, however, a necessary but not a sufficient prerequisite. It also needs to be shown that the method validly measure what it should measure and nothing else. Comparing different methods is one way to determine this, and different self-report measures have thus been shown to correlate as expected. This is not due to the influence of a specific method since self-reports have also been shown to correlate as expected with other methods such as informant ratings and psychophysiological measures (Diener et al., 2009).

## 25.4 FACTORS INFLUENCING SUBJECTIVE WELL-BEING

What makes people happy and satisfied with their lives? One common belief is that some lucky people are disposed to be happy and satisfied with their lives literally from birth to death. Another belief is that some fortunate people are happy and satisfied

with their lives because they have a high income and money saved in the bank. Still another belief is that people are happy and satisfied with their lives because they have a loving family and close friends.

Diener (1984) distinguished between top-down and bottom-up theoretical explanations of subjective well-being. As we shall see in this section, both personality (a top-down explanation), available material resources (a bottom-up explanation), and social relationships (another bottom-up explanation) contribute to an explanation of why people differ in how satisfied or dissatisfied they are with their lives. No single top-down or bottom-up explanation is sufficient.

### 25.4.1 Individual Factors

At the individual level, stable personality traits such as extraversion and emotional stability account for a large proportion of individual differences in subjective well-being (Lucas, 2008). A smaller proportion is accounted for by stable life circumstances including wealth, health, life-cycle stage, marital status, employment, and education (Diener, Suh, Lucas, & Smith, 1999). Yet, changes in life circumstances such as getting or losing a job, birth or death of a child, marriage, death of or divorce from a spouse, and injuries, illness or recovery from such conditions have large impacts. Although the time course is not known with certainty, changes in life circumstances (e.g., marriage) that increase subjective well-being tend to revert back to a set point which is roughly invariant for an individual but different for different individuals (Diener, Lucas, & Scollon, 2006). Full reversion from decreases in subjective well-being (e.g., divorce) may, however, never occur or will take a longer time.

If stable (and possibly genetically determined) personality traits are important determinants of subjective well-being, is it futile to implement public health policies to increase people's life satisfaction and emotional well-being? Even if it were true that, as approximately estimated, 50% of individual differences in subjective well-being are accounted for by personality traits, there is still a large part of the variation that can be influenced. It also needs to be taken into account that personality traits have both direct (temperamental) effects and indirect (behavioural) effects on subjective well-being.

A temperamental explanation of the influence of personality traits on subjective well-being is that emotionally unstable people respond with both stronger positive and negative affect than emotionally stable people. Extraverts compared to introverts similarly respond with stronger positive but weaker negative affect. A complementary behavioural explanation is that personality traits influence choice of and effort invested in activities that lead to positive subjective well-being outcomes.

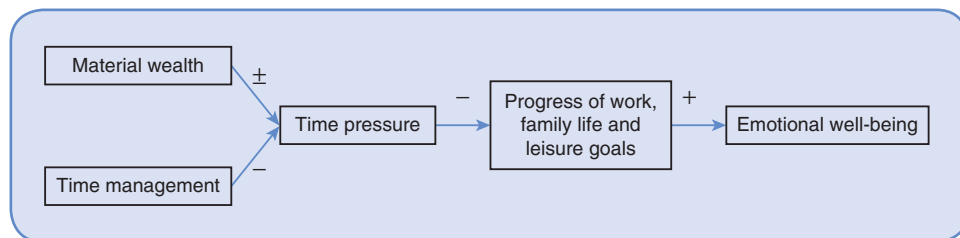
Engagement in intentional goal-directed activities has positive influences on subjective well-being (Lyubomirsky, Sheldon, & Schkade, 2005). Such activities include exercising regularly, devoting effort to meaningful causes, eschewing social comparisons and contingent self-evaluations, and practising certain virtues, for instance, kindness, gratitude, forgiveness, and thoughtful self-reflection. In a similar vein, it may be argued that daily hassles and uplifts are important for how satisfied people are with their lives. In a survey, Jakobsson Bergstad et al. (2012)

showed that affect associated with frequent routine out-of-home activities (e.g., chauffeuring children to school or day-care centre; participating in sports, exercise or outdoor activities; purchasing non-durables; visiting relatives and friends) had a substantial impact on the weekly affect balance and a smaller but still measurable impact on life-satisfaction judgements. The results highlight that it is important for subjective well-being that communities provide services that facilitate routine out-of-home activities.

Activities in everyday life are instrumental in achieving goals such as raising one's salary by performing well at work, leading a happy family life, and having a relaxing leisure time. If goal progress is as expected, people are in a positive mood. The affect balance would thus be positively influenced by goal progress (Klug & Maier, 2014). Only scant research has, however, documented the negative effects of impediments to goal progress.

Time pressure is something many people in affluent societies encounter (Strazdins et al., 2011). A common complaint is having too many things to do in too short a time. Another common complaint is having too little free time. How does time pressure affect satisfaction with life and emotional well-being? Figure 25.1 presents the conceptual model proposed by Gärling, Krause, Gamble and Hartig (2014) to explain how time pressure reduces emotional well-being by interfering with goal progress in the life domains of work, family life, and leisure, as well as spilling over from one domain to another. An example of the latter is that, when a satisfactory work-leisure balance is threatened, this jeopardizes recovery from work stress that otherwise would have a positive effect on emotional well-being (Hartig, Johansson, & Kylin, 2003). Material wealth may increase time pressure since it makes available many competing free-time opportunities, thus paradoxically reducing emotional well-being. Less wealthy people who are denied these opportunities may also experience negative effects of time pressure when they have fewer resources to buy time, for instance, by hiring domestic services.

A market has emerged for courses in time management as well as technical time-management devices enhancing the functionality of the traditional calendar and clock, presumably in response to people's negative experience of time pressure in their everyday lives. Evaluations of time management courses in which participants



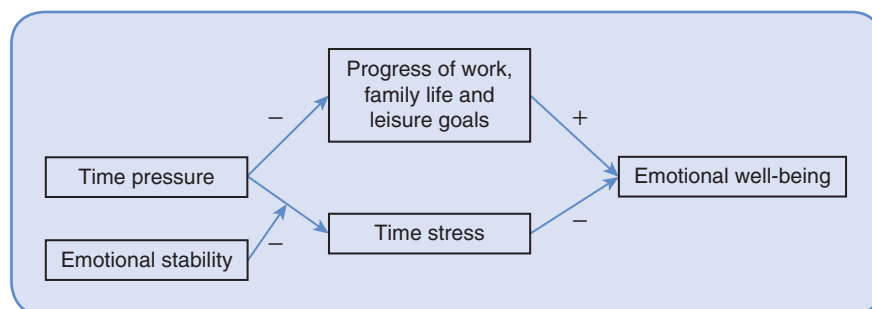
**FIGURE 25.1** Hypothesized conceptual model positing that progress of work, family life, and leisure goals increases emotional well-being, that time pressure negatively influencing performance of instrumental activities decreases goal progress and emotional well-being, that practising time management has indirect positive effects on emotional well-being by decreasing time pressure and its negative effects on goal progress, and that material wealth has indirect negative effects on emotional well-being by increasing and indirect positive effects by decreasing time pressure and its negative effects on goal progress.

practise goal setting and planning appear to show that the courses boost overall life satisfaction, positive feelings such as enthusiasm and engagement, and a strong belief in being able to attain set goals (MacLeod, Coates, & Hetherington, 2008).

If people face many tasks or activities in everyday life such that they experience time pressure, deadlines motivate people to make progress in achieving set goals (Locke & Latham, 2002). Yet, deadlines set too strictly may result in detrimental effects on performance, exactly as having too much time may do. Unsuccessful coping with time pressure causing time stress would have even larger negative performance effects. Time stress would also change the affect balance in a negative direction (Gärling, Gamble, Fors, & Hjerm, 2015; Ng, Diener, Arora, & Harter, 2009). In Figure 25.2, time stress that negatively influences emotional well-being is added to the conceptual model as a parallel mediator to goal progress. Figure 25.2 also illustrates that the personality trait emotional stability may reduce time stress (Vollrath, 2000). Thus, people who are emotionally stable are perhaps more apt to cope with time pressure than those who are emotionally less stable.

### 25.4.2 Economic Factors

Subjective well-being has been assessed at national levels in studies conducted worldwide ([www.worlddatabaseofhappiness.eur.nl](http://www.worlddatabaseofhappiness.eur.nl)) (Veenhoven, 2011). Analyses of such results (e.g., Ahuvia, 2008; Dolan, Peasgood, & White, 2008) demonstrate a substantial effect of material wealth (usually proxied by income) on differences in average life satisfaction between affluent and poor countries, whereas within already affluent countries, material wealth has a diminishing influence on citizens' life satisfaction. A paradoxical but controversial finding, first noted by Easterlin (1974), is that in some affluent countries average life satisfaction has over time increased less than GDP. One explanation is the relative income effect, implying that citizens compare themselves to others in evaluating their subjective well-being. Another is that people adapt to wealth increases by raised aspirations. A possible caveat in some studies is that the causal direction is not from material wealth to subjective well-being but the reverse (see Section 25.5).



**FIGURE 25.2** How the hypothesized conceptual model in Figure 25.1 is augmented by positing that individuals with a less emotional stable personality frequently may fail to cope with time pressure leading to time stress which exaggerates the negative effects of time pressure on emotional well-being



Why should material wealth be important for subjective well-being? An obvious answer is that people have basic needs (e.g., food, housing, security) that must be met to make their lives enjoyable. Psychosocial prosperity becomes more important when material wealth increases (Diener, Ng, Harter, & Arora, 2010a). Presumably for this reason, increases in material wealth are more strongly reflected in changes in the affect balance than in life-satisfaction judgements. Yet, in affluent societies, the affect balance appears to be less influenced by income than life satisfaction (Kahneman & Deaton, 2010). The increase with income is still not linear but diminishing.

Important ingredients of affluent societies are large markets for luxury goods and services. Yet, the diminishing increase that life satisfaction has with income appears to be consistent with luxury consumption having less than expected positive effects. It may even appear as if people in these societies are entering endless loops of consumption where nothing is sufficient and others always have something better. It is generally assumed that a positive relation between material wealth and utility or well-being depends on markets offering goods and services allowing citizens to maximize their well-being. Do markets then fail in doing this, and if so why? Some things that make people happy (see Section 25.4.3) are not for sale. Yet, Dunn, Gilbert, and Wilson (2011) question whether this is a sufficient explanation, arguing instead that people do not spend their money in the right way. The reason is that they do not know what makes them happy. An example is that, contrary to what people believe, purchases of experiences in which they engage tend to lead to more happiness than purchases of goods in which they quickly lose interest (Killingsworth & Gilbert, 2010).

The paradox that luxury consumption fails to increase subjective well-being appears to be that preferences change due to hedonic adaptation (Frederick & Loewenstein, 1999). Hedonic adaptation is a component of the 'hedonic treadmill' effect (Diener et al., 2006). Significant improvements are after some time perceived as normal (adaptation), thus a desire for further improvements is aroused, and so forth (the treadmill). Consumption loops may possibly be understood in this way. Wilson and Gilbert (2008) suggest that the degree of attention to change influences adaptation. As an example, the experience of driving a new car evokes emotions (e.g., fun to drive) by attention to certain attributes (e.g., better acceleration). However, over time, attention to these attributes is reduced. The emotional impact is then reduced. On the other hand, attention to negative events may be sustained longer. For instance, having more space in your apartment is not noticed after some time, whereas a lack of space is experienced every day as being annoying.

Inequality of income distributions in affluent consumer societies negatively affects subjective well-being, in particular, among low-income citizens perceiving inequality. Oshio and Urakawa (2014) thus showed that answers to the question 'Do you think the disparity between the rich and the poor has grown in the past 5 years?' correlated negatively with ratings of overall happiness. One possible determinant is that inequality has resulted in substantial increases in credit purchases (Kamleitner, Hoelzl, & Kirchler, 2012) causing indebtedness that negatively influences subjective well-being. At the same time as people are susceptible to the 'treadmill' effect boosting their desires for luxury consumption, many are economically denied the possibility of consuming luxury products unless taking up credit. A possible source of the negative effects on subjective well-being is that the pleasure of consumption does not buffer the burden of repayments (Kamleitner, Hoelzl, & Kirchler, 2010).

### 25.4.3 Social Factors

Human beings are, as Aristotle remarked, social animals. It is understandable then that so much pleasure in life is derived from various social interactions, with family members, friends, colleagues, and even strangers. A well-documented finding from an abundance of cross-sectional and longitudinal surveys is that marrying is accompanied by an uplift of subjective well-being, although later declining to the level before marrying (Myers, 1999). In asking directed questions in subjective well-being surveys, high ranks are generally given to close relationships with family, friends, and romantic partners. People who report having intimate friends are more satisfied with their lives than those who report having no intimate friends. Breaking up a close relationship is an extremely negative experience (Lucas, 2005), and much effort is invested in maintaining the relationship. Promises to keep in touch, sending postcards, making occasional telephone calls, and organizing reunions exemplify that effort is also made to maintain less close relationships.

Why do interpersonal relationships improve subjective well-being? Reversing the causality, a reason may be that happy people are attracted to each other. An emotional dividend from attachment and belongingness is another reason. A third reason is *social support* ranging from obtaining practical advice and assistance to sharing joys and sorrows, experiencing a partner's empathy, and being mentally supported and rewarded by the partner.

Subjective well-being is also increased if people contribute to an interpersonal relationship, that is, if they themselves provide social support. In experiments described in Lyubomirsky et al. (2005), participants were requested to practise kindness. They chose themselves to do five things beneficial to other people, either on a single day or spread out over a week. Examples of what participants did included helping a friend to solve a problem or to overcome some bad experience, buying something for a friend, lending out the car to a family member or visiting a hospice. Only if the kindness practice was concentrated in one day was an increase in subjective well-being observed. In another experiment, participants were requested to do different things or the same thing several times. After 10 weeks, a positive effect on subjective well-being was again observed but only for those who did different things. Several explanations are conceivable of why helping others increases subjective well-being. Probably the most important one is *reciprocation*. In any society, people are excluded if they do not help needy others and they also therefore expect that others would help them if they themselves were needy. Positive affect associated with helping others may have a long evolutionary history that accounts for the building of human societies. Small cohesive groups may be essential for this.

Charitable giving is an example at the societal level that may increase citizens' subjective well-being – both as givers and receivers. Box 25.2 describes a study showing how companies may contribute to this at the same time as they make a profit from selling demanded products. Other examples in societies are non-profit organizations that receive charitable donations from people to help those in need. That people donating may increase their emotional well-being should also be recognized.

### Box 25.2 Charitable giving increasing happiness

A. Gneezy, U. Gneezy, Nelson and Brown (2010) reported a study to investigate whether the happiness enhanced by charitable giving would increase if people were asked to 'pay what they want' (PWYW). In a US amusement park, photos were taken of people (N = 113,047) after the end of a ride on a roller-coaster-like attraction. People asked to purchase the photos were randomized to a 2 (either a regular US\$12.95 price or PWYW) by 2 (no charitable giving or 50% charitable giving) experimental design. The results showed that 4.49% more purchases were made in the PWYW condition than in the regular-price condition when charitable giving was asked to be made. Significantly more was paid per photo

(Mean = US\$5.33) in the PWYW condition with charitable giving compared to US\$0.92 with no charitable giving. Additional data did not show that spending more on purchasing the pictures crowded out additional spending in the amusement park. If the photo was considered of low value, few purchased it despite that they could decide on the price themselves. Neither was the company profit reduced by asking for charitable giving. The implication is that company profits ethics may not be in conflict with a society's well-being goals. It may thus be possible for companies to both increase selling desired goods and do good for society by increasing charitable giving to the benefits of both themselves and receivers.

## 25.5 CONSEQUENCES OF SUBJECTIVE WELL-BEING

It is undisputed that healthy people are more satisfied with their lives. But do people become healthier if they are satisfied with their lives? Do they live longer? Recent longitudinal evidence suggests qualified affirmative answers to both questions (Diener & Chan, 2011). In healthy populations, both morbidity and mortality are negatively related to life satisfaction. The most solid evidence is that the prevalence of cardiovascular diseases increases with prolonged negative affect states. In diseased populations, the evidence is, however, non-conclusive. Positive affective states do not seem to overcome illnesses despite being known to strengthen the immune system. It may also be questioned whether extreme degrees of positive affect foster over-optimism that disposes people to unhealthy life-styles. There is furthermore a risk of not seeking medical care when required.

High compared to low subjective well-being may add from four to 10 years to one's life. The additional years are also more enjoyable due to better health and a more active life. It is still too premature to specify which degree of subjective well-being is beneficial. This does not speak against public health policies to increase subjective well-being for people in whom it is low.

Living longer, being healthy, being satisfied with one's life, and experiencing predominantly positive affect (a positive affect balance) is for the majority of people a

desirable goal. But if facing the choice between a shorter more satisfying life and a longer less satisfying life, which would people prefer? In real life, few people make this choice, but participants in an experiment described in Box 25.3 were asked to do. The results have a bearing on policy decisions that are based on Quality-Adjusted Life Years (QALY), for instance, decisions about allocating resources to a new medical treatment. If a treatment only prolongs an unhappy life, should the cost of the treatment be allocated differently? QALY is calculated by adding 1 for each additional year in perfect health but less than 1 depending on how much worse than perfect health is.

From a societal and individual perspective, it is germane to ask if life satisfaction and emotional well-being lead to success in life. In comparing longitudinal to cross-sectional surveys to support their causal interpretation, Lyubomirski, King, and Diener (2005) reach the conclusion that people who are satisfied with their lives and report a positive affect balance become more successful in the life domains of work (e.g., income, job performance and satisfaction), social relationships (e.g., marital happiness, number of and satisfaction with friends, positive perceptions of self and others), and health (e.g., absence of pain, little need of medical care, few work absences). Some experimental studies point in the same direction, although their results should only with caution be generalized to real life.

### Box 25.3 A longer unhappy life may not be desirable: the James Dean effect

Diener, Wirtz and Oishi (2001) conducted a study of what lay people believe is a good life. They recruited as participants 115 undergraduates in their twenties and 55 parents and older friends aged from 34–63 years old with a mean of 46 years. Different vignettes presented in a questionnaire described the life of a fictitious character who was a never-married woman without children. All vignettes ended with the character's sudden and painless death in an automobile accident at the age of 30 or 60 years (50 years for the older participants). In a positive condition, the character's first part of life was extremely happy with enjoyable work, vacations, close friends, and pleasant leisure time. An extended positive condition added a slightly less positive extra five years before death. In a contrasting negative condition the character's first part of life was very depressed and angry with a monotonous job, no close friends, and leisure filled with solitary television viewing. In an

extended negative condition a slightly less negative five years before death were added. The participants answered two questions: (1) 'Taking the character's life as a whole, how desirable do you think it was?' and (2) 'How much total happiness or unhappiness would you say the character experienced in her life?' Ratings were made on scales from 1 (most undesirable or unhappy) to 9 (most desirable or happy). The results showed that a longer life (death at age 50 or 60 years rather than at age 25 years) and a happy life compared to an unhappy life were rated more positively. However, for both the younger and the older participants, adding five less happy years to a happy life or five less unhappy years to an unhappy life did not increase the ratings of desirability or happiness. The main point is thus that death at a younger age is preferred to death at an older age if the last years are less happy. Yet, looking ahead people would likely prefer a longer to a shorter life.

## 25.6 SUMMARY

In this chapter we have addressed three questions that are important in any society: Are citizens satisfied or dissatisfied with their lives?, what makes them satisfied or dissatisfied?, and what are the consequences of being satisfied or dissatisfied? How should such questions be answered to influence policies? First, several types of national indicators (economic, social, subjective well-being) were described that are or may be relevant. Next our main focus was subjective well-being, consisting of a cognitive judgement of life satisfaction and emotional well-being defined as the balance of experienced positive and negative affect. We reviewed how life satisfaction and emotional well-being are reliably and validly measured by means of self-report ratings in questionnaires. In such measurements, the cognitive judgements of life satisfaction mainly reflect stable possessions of material and other resources and are therefore only modestly correlated with the less stable balance of positive and negative affect experienced in everyday life. We reviewed research showing that individual factors (personality, life-cycle stage, engagement in goal-directed activities), economic factors (material wealth, income), and social factors (receiving and giving social support, kindness) influence subjective well-being. We also noted that these influences are frequently complex, such that causality is difficult to infer. Finally, we reviewed other strands of research showing that subjective well-being has positive consequences for health, longevity, and life success.

## REVIEW QUESTIONS

1. What is subjective well-being and how is it measured?
2. In which ways does economic wealth increase emotional well-being?
3. In which ways does economic wealth not increase emotional well-being?
4. What implications for public policy do measures of subjective well-being have?

## REFERENCES

- Ahuvia, A. (2008). Wealth, consumption and happiness. In A. Lewis (Ed.), *The Cambridge handbook of psychology and economic behavior* (pp. 199–226). Cambridge: Cambridge University Press.
- Angner, E. (2009). The politics of happiness: Subjective vs. economic measures as measures of social well-being. In L. Bortolotti (Ed.), *Philosophy and happiness* (pp. 149–166). New York: Palgrave.
- Busseri, M. A., & Sadava, S. W. (2011) A review of the tripartite structure of subjective well-being: Implications for conceptualization, operationalization, analysis, and synthesis. *Personality and Social Psychology Review*, 15, 290–314. DOI:10.1177/1088868310391271
- Diener, E. (1984). Subjective well-being. *Psychological Bulletin*, 95, 542–575. DOI:10.1037/0033-2909.125.2.276
- Diener, E., & Chan, M. Y. (2011). Happy people live longer: Subjective well-being contributes to health and longevity. *Applied Psychology: Health and Well-Being*, 3, 1–43. DOI:10.1111/j.1758-0854.2010.01045.x

- Diener, E., Emmons, R. A., Larsen, R. J., & Griffen, S. (1985). The satisfaction with life scale. *Journal of Personality Assessment*, 49, 71–75. DOI:10.1207/s15327752jpa4901\_13
- Diener, E., Larsen, R. J., Levine, S., & Emmons, R. A. (1985). Intensity and frequency: Dimensions underlying positive and negative affect. *Journal of Personality and Social Psychology*, 48, 1253–1265. DOI: 10.1037/0022-3514.48.5.1253
- Diener, E., Lucas, R. E., Schimmack, U., & Helliwell, J. F. (2009). *Well-being for public policy*. New York: Oxford University Press.
- Diener, E., Lucas, R. E., & Scollon, C. (2006). Beyond the hedonic treadmill: Revising the adaptation theory of well-being. *American Psychologist*, 65(4), 305–314. DOI: 10.1037/0003-066X.61.4.305
- Diener, E., Ng, W., Harter, J., & Arora, R. (2010a). Wealth and happiness across the world: Material prosperity predicts life evaluation, whereas psychosocial prosperity predicts positive feelings. *Journal of Personality and Social Psychology*, 99, 52–61. DOI:10.1037/a0018066
- Diener, E., & Seligman, M. E. P. (2004). Beyond money: Toward an economy of well-being. *Psychological Science in the Public Interest*, 5(1), 1–31. DOI:10.1111/j.0963-7214.2004.00501001.x
- Diener, E., Suh, E. M., Lucas, R. E., & Smith, H. L. (1999). Subjective well-being: Three decades of progress. *Psychological Bulletin*, 125, 276–302. DOI: 10.1037/0033-2909.125.2.276
- Diener, E., Wirtz, D., & Oishi, S. (2001). End effects of rated life quality: The James Dean effect. *Psychological Science*, 12, 124–128. DOI: 10.1111/1467-9280.00321
- Diener, E., Wirtz, D., Tov, W., Kim-Prieto, C., Choi, D., Oishi, S., & Biswas-Diener, R. (2010b). New well-being measures: Short scales to assess flourishing and positive and negative feelings. *Social Indicators Research*, 97, 143–156. DOI:10.1007/s11205-009-9493-y
- Dolan, P., Peasgood, T., & White, M. P. (2008). Do we really know what makes us happy? A review of the economic literature on the factors associated with subjective well-being. *Journal of Economic Psychology*, 29, 94–122. DOI:10.1016/j.joep.2007.09.001
- Dolan, P., & White, M. P. (2007). How can measures of subjective well-being be used to inform public policy? *Perspective on Psychological Science*, 2, 71–85. DOI:10.1111/j.1745-6916.2007.00030.x
- Dunn, E. W., Gilbert, D. T., & Wilson, T. D. (2011). If money doesn't make you happy, then you probably aren't spending it right. *Journal of Consumer Psychology*, 21, 115–125. DOI: 10.1016/j.jcps.2011.02.002
- Easterlin, R. A. (1974). Does economic growth improve the human lot? Some empirical evidence. In P. A. David, & M. W. Reder (Eds.), *Nations and households in economic growth* (pp. 89–125). New York: Academic Press.
- Eid, M., & Diener, E. (2004). Global judgements of subjective well-being: Situational variability and long-term stability. *Social Indicators Research*, 65, 245–272.
- Frederick, S., & Loewenstein, G. (1999). Hedonic adaptation. In D. Kahneman, E. Diener, & N. Schwartz (Eds.), *Well-being: The foundations of hedonic psychology* (pp. 302–329). New York: Russell Sage Foundation.
- Frey, B. (2008). *Happiness: A revolution in economics*. Cambridge, MA: MIT Press.
- Gärling, T., & Gamble, A. (2012). Influences on current mood of eliciting life-satisfaction judgments. *Journal of Positive Psychology*, 7, 219–229. DOI:10.1080/17439760.2012.674547
- Gärling, T., Gamble, A., Fors, F., & Hjerm, M. (2015). Emotional well-being related to time pressure, impediment to goal progress, and stress-related symptoms. *Journal of Happiness Studies*, 17(5), 1789–1799. DOI: 10.1007/s10902-015-9670-4
- Gärling, T., Krause, K., Gamble, A., & Hartig, T. (2014). Time pressure and emotional well-being. *PsyCH Journal*, 3, 132–143. DOI: 10.1002/pchj.52
- Gneezy, A., Gneezy, U., Nelson, L. D., & Brown, A. (2010). Shared social responsibility: A field experiment in Pay-What-You-Want pricing and charitable giving. *Science*, 329, 325–327. DOI: 10.1126/science.1186744.
- Hartig, T., Johansson, G., & Kylin, C. (2003). Residence in the social ecology of stress and restoration. *Journal of Social Issues*, 59, 611–636. DOI: 10.1111/1540-4560.00080
- Jakobsson Bergstad, C., Gamble, A., Hagman, O., Polk, M., Gärling, T. ... & Olsson, L. E. (2012). Influences on subjective well-being of affect associated with routine out-of-home activities. *Applied Research in Quality of Life*, 7, 49–62. DOI:10.1007/s11482-011-9143-9.

- Kahneman, D. (1999) Objective happiness. In D. Kahneman, E. Diener, & N. Schwarz (Eds.), *Well-being: The foundations of hedonic psychology* (pp. 3–25). New York: Russell Sage Foundation.
- Kahneman, D., & Deaton, A. (2010). High income improves evaluation of life but not emotional well-being. *PNAS*, *107*, 16489–16493. DOI:10.1073/pnas.1011492107.
- Kamleitner, B., Hoelzl, E., & Kirchler, E. (2010). Experiencing costs and benefits of a loan transaction: The role of cost-benefit associations. *Journal of Economic Psychology*, *31*, 1047–1056. DOI: 10.1016/j.joep.2010.09.005
- Kamleitner, B., Hoelzl, E., & Kirchler, E. (2012). Credit use: Psychological perspectives on a multifaceted phenomenon. *International Journal of Psychology*, *47*(1), 1–27. DOI: 10.1080/00207594.2011.628674
- Killingworth, M. A., & Gilbert, D. T. (2010). A wandering mind is an unhappy mind. *Science*, *330*, 932. DOI: 10.1126/science.1192439
- Kim-Prieto, C., Diener, E., Tamir, M., Scollon, C., & Diener, M. (2005). Integrating the diverse definitions of happiness: A time-sequential framework of subjective well-being. *Journal of Happiness Studies*, *6*, 261–300. DOI: 10.1007/s10902-005-7226-8
- Klug, H. J. P., & Maier, G. W. (2014). Linking goal progress and subjective well-being: A meta-analysis. *Journal of Happiness Studies*, *16*, 37–65. DOI:10.1007/s10902-013-9493-0.
- Locke, E. A., & Latham, G. P. (2002). Building a practically useful theory of goal setting and task motivation: A 35-year odyssey. *American Psychologist*, *57*, 705–717. DOI:10.1037/0003-066X.57.9.705
- Lucas, R. E. (2005). Time does not heal all wounds: A longitudinal study of reaction and adaptation to divorce. *Psychological Science*, *16*, 945–950. DOI: 10.1111/j.0963-7214.2004.01501002.x
- Lucas, R. E. (2008). Personality and subjective well-being. In M. Eid, & R. J. Larsen (Eds.), *The science of subjective well-being* (pp. 171–194). New York: Guilford Press.
- Lyubomirsky, S., King, L., & Diener, E. (2005). The benefits of frequent positive affect: Does happiness lead to success? *Psychological Bulletin*, *131*, 803–855. DOI:10.1037/0033-909.131.6.803.
- Lyubomirsky, S., Sheldon, K. M., & Schkade, D. (2005). Pursuing happiness: The architecture of sustainable change. *Review of General Psychology*, *9*, 111–131. DOI: 10.1037/1089-2680.9.2.111
- MacLeod, A. K., Coates, E., & Hetherington, J. (2008). Increasing well-being through teaching goal-setting and planning skills: Results of a brief intervention. *Journal of Happiness Studies*, *9*, 185–196. DOI:10.1007/s10902-007-9057-2
- Myers, D. G. (1999). Close relationships and quality of life. In D. Kahneman, E. Diener, & N. Schwartz (Eds.), *Well-being: The foundations of hedonic psychology* (pp. 374–391). New York: Russell Sage Foundation.
- Ng, W., Diener, E., Arora, R., & Harter, J. (2009). Affluence, feelings of stress, and well-being. *Social Indicators Research*, *94*, 257–271. DOI:10.1007/s11205-008-9422-5
- Nussbaum, M. C. (2011). *Creating capabilities*. Cambridge, MA: Harvard University Press.
- Oshio, T., & Urakawa, K. (2014). The association between perceived income inequality and subjective well-being: Evidence from a social survey in Japan. *Social Indicators Research*, *116*, 755–770. DOI: 10.1007/s11205-013-0323-x
- Pavot, W. (2008). The assessment of subjective well-being. In M. Eid, & R. J. Larsen (Eds.), *The science of subjective well-being* (pp. 124–140). New York: Guilford Press.
- Perlman, M., & Marietta, M. (2005). The politics of social accounting: Public goals and the evolution of the national accounts in Germany, the United Kingdom and the United States. *Review of Political Economy*, *17*(2), 211–230. DOI:10.1080/09538250500067262
- Ryan, R. M., & Deci, E. L. (2000). Self-determination theory and facilitation of intrinsic motivation, social development, and well-being. *American Psychologist*, *55*, 68–78. DOI:10.1037/0003-066X.55.1.68
- Schimmack, U. (2008). The structure of subjective well-being. In M. Eid, & R. J. Larsen (Eds.), *The science of subjective well-being* (pp. 97–123). New York: Guilford Press.
- Strazdins, L., Griffin, A. L., Broom, D. H., Banwell, C., Korda, R., Dixon, J., Paolucci, F., & Glover, J. (2011). Time scarcity: Another health inequality? *Environment and Planning A*, *43*, 545–559. DOI:10.1068/a4360

- Van den Bergh, J. C. J. M. (2009). The GDP paradox. *Journal of Economic Psychology*, 30, 117–135. DOI:10.1016/j.joep.2008.12.001
- Veenhoven, R. (2011). *World database of happiness*. Rotterdam, The Netherlands: Erasmus University, Faculty of Social Sciences.
- Vollrath, M. (2000). Personality and hassles among university students: A three-year longitudinal study. *European Journal of Personality*, 14, 199–215. DOI: 10.1002/1099-0984(200005/06)
- Wilson, T. D., & Gilbert, D. T. (2008). Explaining away: A model of affective adaptation. *Perspectives on Psychological Science*, 3, 370–386. DOI:10.1111/j.1745-6924.2008.00085.x

## FURTHER READING

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- Diener, E., Lucas, R. E., Schimmack, U., & Helliwell, J. F. (2009). *Well-being for public policy*. New York: Oxford University Press.
- Eid, M., & Larsen, R. J. (Eds.). (2008). *The science of subjective well-being*. New York: Guilford Press.
- Frey, B. (2008). *Happiness: A revolution in economics*. Cambridge, MA: MIT Press.
- Kahneman, D., Diener, E., & Schwarz, N. (Eds.). (1999). *Well-being: The foundations of hedonic psychology*. New York: Russell Sage Foundation.