# **Chapter 2 SELECTION OF FINDINGS**

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Parts of this text are taken from the Introductory text to the Bibliography of Happiness (section 2/1) and the Introductory text to the Collection of Measures of Happiness (section 2/3)

# 2/1 GATHERING PROMISING STUDIES

# 2/1.1 How research reports are gathered

#### 2/1.2 Process of continuous collection

This text is identical to sections 3/1 and 3/5 of the Introductory text to the Bibliography of Happiness

The scientific literature is combed in various ways to find publications on happiness. All texts are read to assess whether they deal with happiness as defined here, the 'subjective enjoyment of one's life-as-a-whole (cf. Chapter 2 of the Introductory text ti the Bibliography of Happiness)). Only publications that address this subject are added to this bibliography

# 2/1.1 How research reports are gathered

The following bibliographical sources are scanned periodically:

#### Abstract systems

Several international abstract systems were used in the late 1990s, the Psychological Abstracts, the Sociological Abstracts, the International Dissertations Abstracts and the Educational Resources Information Center's abstract system. Since the 2000s we periodically scan electronic databases and since 2005 Google Scholar in particular.

A broad range of key words is used in the searches. These key words are: adjustment (general, life, personal) affect (general, level), attitude (life), contentment, elation, evaluation (life), happiness, hedonic (affect, experience, level, mood), morale, satisfaction (emotional, general, life) and well-being (inner, psychological, general). Titles are screened and the full text of each abstract and index.

#### Libraries

Catalogues of university libraries have been scanned in several nations (Australia, Britain, France, Germany, Hong Kong, The Netherlands, USA), looking for works that carry the word happiness or a synonym in the title and books in related fields. Promising books are called up and inspected before being added to or rejected for this bibliography.

# Investigators

When research findings are entered in the findings archive of this database, the authors of the research report are invited to check our input, they are also asked whether there are any other publications on happiness from their hand, not yet included in the Bibliography of Happiness. Incidentally, the Directory of Investigators on Happiness is used for a mailing with a call for updates about their work.

## Reference lists

Reference lists of gathered publications are inspected and promising titles called in.

#### Announcement services

Today, many papers on happiness are brought to our attention by services such as Academia and Research Gate. We also profit from specialized repositories such as New Economic Papers (NEP) on Happiness (NEP-HAP) and from subject specific alerts mailed by publishers, such as Springer Alerts Service.

## 2/1.2 Process of continuous collection

Gathering the scientific literature on happiness was not too difficult at the start of this research strand in the second half of the 20<sup>th</sup> century. Pioneers in this field made bibliographies in 1982 (Diener), 1984 (Veenhoven) and 1997 (Cummins). See subject section 'Bibliographies' of this Bibliography. To our knowledge, only Veenhoven's bibliography has been continued and that is the bibliography described in this introductory text.

# Problem of keeping track of the literature

Why have other bibliographies been discontinued? The main reason seems to be that the exponential growth of scientific publications on happiness makes it ever more difficult to keep a bibliography up to date.

As we will see below, the maintenance of this bibliography requires currently about 2 full time staff. This capacity problem will be more pressing when the conceptual scope is loose, which implies that the survival of this bibliography is at least partly due to its strict conceptual focus.

Another reason for the discontinuation of earlier bibliographies could be in the appearance of electronic databases such as Google Scholar. Why sink time in maintaining a bibliography when a selection on the word happiness appears on your screen in a split-second?

Probably, the limitations of such searches were not well recognized at that time. One limitation is that selection on words does not always provide a selection on concept, and that this is particularly so in the case of happiness (cf. section 3/2). A related limitation is that this results in unmanageable numbers of publications. A search on 'happiness' in Google Scholar yielding some 2 million hits.

Future developments automatic identification of the contents of scientific publications may allow selection on concepts used and can even sort selected publications on happiness by subject and methodology. Yet for the time being, we must do with this men-made bibliography.

#### Procedure

To keep the bibliography up to date the following nine steps are taken:

- 1. Identifying scientific publications that could deal with happiness using the sources mentioned in section 3/1.
- 2. Calling in texts of these, though the university library of downloading from internet
- 3. Filing incoming texts on a working list
- 4. Preparing texts for selection and coding: Adding a notation sheet to a writable pdfversion of the text

- 5. Selection and coding by senior staff.
  - a. Texts are close read, focussing on
    - Whether it deals with happiness as defined in chapter 2 of this introductory text
    - o If so, whether the text reports an empirical investigation on happiness
    - If so, whether an acceptable measure of happiness has been used, which makes the results eligible for entering in the findings archive (cf. chapter 5 of this introductory text).
  - b. All publications are coded for subject, using the most recent subject classification. When a new subject appears in a publication, this is added to that classification
  - c. In case of eligible publications, measure codes are noted next to description of questions on happiness. The most recent classification of happiness measures is used for that purpose and new measures are added.
  - d. Findings to be entered in the findings archive are marked in the text, typically by encircling rows of columns in tables
  - e. Reference lists are screened for promising titles, not yet on the working list and entered in step 1
- 6. Entering of selected publications in the Access database. Notation of related publications (not about happiness) on the working list
- 7. Adding full texts of selected publications to the Access database, in pdf version with notations (for intern use only)
- 8. Adding a copy of all selected texts to a file in which selection on words is possible
- 9. Upload of the Access database to the website of the World Database of Happiness

#### Team

This work is currently done by a team of 8 persons, consisting of 7 volunteers supported by one paid staff—member. The volunteers work one or two days in the week and typically take responsibility for one of the steps in the above described work flow. Most of volunteers are pensioners recruited from students of the Erasmus Academy of higher education for elderly people HOVO. Together the workforce involved in maintenance of this bibliography equals some 2 full time equivalents. Click here for a list of people involved in the maintenance of this bibliography in the past and present.

## 2/2 SELECTION ON CONCEPT OF HAPPINESS

# 2/2.1 Definition of happiness

## 2/2.2 Components of happiness

- 2/2.2.1 Hedonic level of affect
- 2/2.2.2 Contentment
- 2/2.2.3 Relative impact in overall appraisal of life

# 2/2.3 Difference with related concepts

2/2.3.1 Difference with other qualities of life scheme

- Livability of the environment
- Life-ability of the individual
- Utility of life
- Core meaning: subjective enjoyment of life
- 2/2.3.2 Difference with other enjoyments scheme
  - Instant-satisfaction
  - Domain-satisfaction
  - Top-experience
  - Core meaning: satisfaction with life-as-a-whole

# 2/2.4 Variable aspects of happiness

# 2/2.5 Focus on present happiness

# 2/2.6 Why this concept?

This text is similar to chapter 2 of the introductory text to the Bibliography of Happiness and chapter 2 of the introductory text to the collection Measures of Happiness.

Step 5a in the procedure described in section 2/1.2 of this introductory text requires a sharp definition of happiness and distinction from related concepts. That requirement is met in this section.

The word 'happiness' is used in various ways. In the widest sense it is an umbrella term for all that is good. In this meaning it is often used interchangeably with terms like 'well-being' or 'quality of life' and denotes both individual and social welfare. This use of words suggests that there is one ultimate good and disguises differences in interest between individuals and society.

Here the word happiness is used in the more limited sense of subjective enjoyment of life. In this World Database of Happiness, we restrict to happiness in that particular sense. This concept is discussed in more detail elsewhere. See Veenhoven 1984 (chapter 2) and Veenhoven 2000 (section 1).

## 2/2.1 Definition of happiness

Overall happiness is the degree to which an individual judges the overall quality of his/her own life-as-a-whole favorably. In other words: how much one likes the life one leads. The key terms in this definition may be elucidated as follows.

#### Degree

The word 'happiness' is not used to denote an optimal appreciation of life. It refers to a degree, like the concepts of 'length' or 'weight', it denotes more or less of something. When we say a person is happy, we mean that he or she judges his of her life favorably rather than unfavorably.

#### Individual

The term happiness is used to describe the state of an individual person only; it does not apply to collectivities. Thus, a nation cannot be said to be happy. At best, most of its citizens consider themselves happy.

Happiness denotes a subjective appreciation of life by an individual. So there is no given 'objective' standard for happiness. A person who thinks he/she is happy, really is happy.

## Judges

The word 'happiness' is used where somebody has made an overall judgment about the quality of his or her life. This implies an intellectual activity. Making an overall judgment implies assessing past experiences and estimating future experiences and estimating average quality of life.

One consequence of this conceptualization is that the word 'happiness' cannot be used for those who did not make up their mind. One cannot say whether a person is happy or not, if that person is intellectually unable to construct an overall judgment. Thus, the concept cannot be used for animals or small children. Nor is the concept applicable to people who did not reflect on the quality of their life or could not reach a conclusion.

#### Overall

The evaluation of life aimed at is an overall judgment. It embodies all criteria for appreciation, which figure in the mind. In the past hedonists used to equate happiness with sensory pleasures only; however, there are more modes of appreciation. Apart from the sensory system, cognition and affect also enable individuals to appraise their life. Thus, evaluations also involve cognitive appraisals, based on aspirations, expectations and values. The evaluation also draws on affective conditions, in particular on average mood.

The word 'happiness' refers to a judgment, which integrates all the appreciation criteria used. Thus, the idea that one has all one has ever desired does not necessarily make a person happy. Despite all material endowments such a person may feel pain or be depressed. Similarly, the appraisal that one's life is 'exciting' does not necessarily mark oneself as happy either; life may be too exciting to be enjoyable. A Chinese curse says:

"May you have interesting times".

#### Life-as-a-whole

We do not use the word 'happiness' to characterize satisfaction with specific aspects of life, such as marriage or work. 'Happiness' refers to satisfaction with life-as-a-whole. It covers past, present and anticipated experiences. This does not mean that all things ever experienced are given equal weight in the evaluation. As stated above, evaluation involves a sifting and ordering. In this process some aspects may be emphasized and others ignored. Past life-experiences for example, seldom enter into the evaluation process in their original phenomenological Gestalt. What is taken into consideration is mostly a shallow representation of what one tasted previously.

#### Own life

The term 'happiness' concerns the evaluation of one's own life, not of life in general. A pessimistic 'Weltanschauung' does not necessarily characterize someone as 'unhappy'.

## Favorably

Evaluation always embodies appreciation; a conclusion as to whether one likes something or not. The term 'happiness' refers only to judgments concerning this aspect. Happiness judgments concern the dimension extending from appreciation to depreciation, from like to dislike. All humans are capable of appraisals of this kind, though not all humans can generalize all appraisals into a judgment of life-as-a-whole.

The criterion of 'favorableness' is very close to what is called 'pleasantness'; however, it is not quite the same. The term 'favorableness' concerns the appreciation involved in all evaluations, while the term 'pleasantness' refers exclusively to direct affective experience. As such it is more characteristic of the affective component of happiness (to be discussed below) than of overall happiness itself.

# 2/2.2 Components of happiness

When evaluating the favorableness of life, we tend to use two more or less distinct sources of information: our affects and their thoughts. One can decide that one feels fine most of the time and one can also judge that life seems to meet ones (conscious) demands. These appraisals do not necessarily coincide. We may feel fine generally, but nevertheless be aware that we failed to realize our aspirations. Or one may have surpassed one's aspirations, but nevertheless feel miserable. Using the word 'happiness' in both these cases would result in three different kinds of happiness, the overall judgment as described above and these two specific appraisals. Therefore, the components are referred to as 'hedonic level of affect' and 'contentment'. To mark the difference with the encompassing judgment I will refer to happiness (the core concept) as <u>overall happiness</u>. A synonym for overall happiness is 'life-satisfaction'.

#### 2/2.2.1 Hedonic level of affect

Hedonic level of affect is the degree to which various affects that someone experiences are pleasant in character. Hedonic level of affect is not the same as 'mood'. We experience different kinds of mood: elated moods, calm moods, restless moods, moody moods, etc. A special mixture of affective experience, one of which is 'hedonic tone' or 'pleasantness', characterizes each of these moods. The concept of hedonic level concerns only the pleasantness experienced in affects; that is, the pleasantness in feelings, in emotions, as well as in moods. So a high hedonic level may be based on strong but passing emotions of love, as well as on moods of steady calmness.

A person's average hedonic level of affect can be assessed over different periods of time: an hour, a week, a year, as well as over a lifetime. The focus here is on 'characteristic' hedonic level. That is so to say: the average over a long time-span such as a month or a year. The concept does not presume subjective awareness of that average level.

#### 2/2.2.2 Contentment

Contentment is the degree to which an individual perceives his/her aspirations are met. The concept presupposes that the individual has developed some conscious wants and has formed an idea about their realization. The factual correctness of this idea is not at stake. The concept concerns the individual's subjective perception.

When we assess the degree to which our wants are being met, we may look both backwards and forwards. We may assess what life has brought up to now and may estimate what it is likely to yield in the future. The concept concerns the case where someone combines both the past and the future in an assessment.

## 2/2.2.3 Relative impact in the overall evaluation of life

If these components serve as subtotals in the overall evaluation of life, what is then their weight? Most scholars stress contentment, for instance Andrews & Withey (1976) suggest that individuals compute a weighted average of earlier life-aspect evaluations, while Michalos' (1985) multiple discrepancy theory assumes comparisons of life as it is with various standards of how it should be. Many philosophers see it as an estimate of success in realizing one's life-plan (e.g. Nordenfelt 1994).

Yet there are good reasons to assume that overall life-satisfaction is mostly inferred from affective experience (Veenhoven 1997: 59-61). One reason is that life-as-a-whole is not a suitable object for calculative evaluation. Life has many aspects and there is usually not one clear-cut ideal model it can be compared to. Another reason seems to be that affective signals tend to dominate; seemingly cognitive appraisals are often instigated by affective cues (Zajonc 1972). This latter point fits the theory that the affective system is the older in evolutionary terms, and that cognition works as an addition to this navigation system rather than a replacement. Empirical evidence for this theory is provided by Kainulainen et al. (2018).

This issue has important consequences for the significance of happiness. If appreciation is a matter of mere comparison with arbitrary standards, there is little of value in a positive evaluation; dissatisfaction is then an indication of high demands. If, however,

happiness signals the degree to which innate needs are met, life-satisfaction denotes how well we thrive. This issue is considered in more detail in Veenhoven 1991, and Veenhoven 1996.

Whatever the method of assessment, the fact that we are able to come to an overall evaluation of life is quite important. It is the only basis for encompassing judgments of the quality of life.

# 2/2.3 Difference with related concepts

This concept of happiness can be further clarified by noting the difference with related notions. Below we will first distinguish enjoyment of life from other qualities of life (section 2/3.1) and then discern happiness from other enjoyments (section 2/3.2). Note that many these different concepts are often called by the same name.

# 2/2.3.1 Difference with other qualities of life

The term 'quality of life' suggests that all merits can be integrated in one final scale of worth. This is not the case. The term is merely an umbrella for different notions of what is good. Below I will delineate four qualities of life and show that the concept of happiness fits only one of these.

## Four qualities of life

Quality-of-life concepts can be sorted using two distinctions, which together provide a fourfold matrix. That classification is discussed in more detail in Veenhoven (2000).

The first distinction is between chances and outcomes, that is, the difference between opportunities for a good life and the good life itself. This is the difference between potentiality and actuality. I refer to this as 'life-chances' and 'life-results'. Opportunities and outcomes are related but are certainly not the same. Chances can fail to be realized, due to stupidity or bad luck. Conversely, people sometimes make much of their life in spite of poor opportunities. A second difference is between outer and inner qualities of life, in other words between 'external' and 'internal' features. In the first case the quality is in the environment, in the latter it is in the individual. Lane (1994) made this distinction clear by distinguishing 'quality of society' from 'quality of persons'. The combination of these two dichotomies yields a fourfold matrix. This classification is presented in scheme 2/3.1.

In the upper half of the scheme, we see two variants of potential quality of life, with next to the outer opportunities in one's environment, the inner capacities to exploit these. The environmental chances can be denoted by the term *livability*, the personal capacities by the word *life ability*. This difference is not new. In sociology, the distinction between 'social capital' and 'psychological capital' is sometimes used in this context. In the psychology of stress, the difference is labeled negatively in terms of 'burden' and 'bearing power'.

The lower half of the scheme is about quality of life with respect to its outcomes. Two kinds of outcomes are distinguished, outcomes for the environment and outcomes for oneself. The external worth of a life is denoted by the term *utility of life*. The inner valuation of it is called *enjoyment of life*. These matters are of course related. Knowing that one's life is useful will typically add to the enjoyment of it. Yet not all-useful lives are

happy lives and not every good-for-nothing really cares. This difference has been elaborated in discussions on utilitarian moral philosophy, which praises happiness as the highest good. Adversaries of this view hold that there is more worth to life than just pleasures and pains. Mill (1861) summarized this position in his famous statement that he preferred an unhappy Socrates to a happy fool.

## Livability of the environment

The left top quadrant denotes the meaning of good living conditions, shortly called 'livability'. Ecologists see livability in the natural environment and describe it in terms of pollution, global warming and degradation of nature. Currently, they associate livability typically with preservation of the environment. City planners see livability in the built environment and associate it with such things as sewer systems, traffic jams and ghetto formation. Here the good life is seen as a fruit of human intervention.

Scheme 2/2.3.1

Difference with other qualities of life

	Outer qualities	Inner qualities
Life chances	Livability of environment	Life-ability of the person
Life results	Utility of life	Enjoyment of life

In the sociological view, society is central. Firstly, livability is associated with the quality of society-as-a-whole. Classic concepts of the 'good society' stress material welfare and social equality, sometimes equating the concept more or less with the welfare state. Current notions emphasize close networks, strong norms and active voluntary associations. The reverse of this livability concept is 'social fragmentation'. Secondly, livability is seen in one's position in society. For a long time, the emphasis was placed on the 'under-class' but currently attention has shifted to the 'outer-class'. The corresponding antonyms are 'deprivation' and 'exclusion'.

Livability is not what is called happiness here. It is rather a precondition for happiness and not all environmental conditions are equally conducive to happiness.

# Life-ability of the person

The right top quadrant denotes inner life-chances. That is: how well we are equipped to cope with the problems of life. Sen (1992) calls this quality of life variant 'capability'. I prefer the simple term 'life-ability', which contrasts elegantly with 'livability'.

The most common depiction of this quality of life is absence of functional defects. This is 'health' in the limited sense, sometimes referred to as 'negative health'. In this context, doctors focus on unimpaired functioning of the body, while psychologists stress the absence of mental defects. In their language, quality of life and well-being are often synonymous with mental health. This use of words presupposes a 'normal' level of functioning. Good quality of life is the body and mind working as designed. This is the common meaning used in curative care.

Next to absence of disease, one can consider excellence of function. This is referred to as 'positive health' and associated with energy and resilience. Psychological concepts of positive mental health involve autonomy, reality control, creativity and inner synergy of traits and strivings. A new term in this context is 'emotional intelligence'. Though originally meant for specific mental skills, this term has come to denote a broad range of mental capabilities. The training professions favor this broader definition.

A further step is to evaluate capability in a developmental perspective and to include acquisition of new skills for living. This is commonly denoted by the term 'self-actualization'. From this point of view a middle-aged man is not 'well' if he behaves like an adolescent, even if he functions without problems at this level. Since abilities do not develop along-side idleness, this quality of life is close to the 'activity' in Aristotle's concept of eudemonia. This quality concept is also currently used in the training professions.

Lastly, the term 'art of living' denotes special life-abilities; in most contexts this quality is distinguished from mental health and sometimes even attributed to slightly disturbed persons. Art of living is associated with refined tastes, an ability to enjoy life and an original style of life.

Ability to deal with the problems of life will mostly contributes to happiness as defined here but is not identical. If one is competent in living one has a good chance at happiness, but this endowment does not guarantee an enjoyable outcome.

#### Utility of life

The left bottom quadrant represents the notion that a good life must be good for something more than itself. This assumes some higher values. There is no current generic for these external outcomes of life. Gerson (1976: 795) refers to these effects as 'transcendental' conceptions of quality of life. Another appellation is 'meaning of life', which then denotes 'true' significance instead of mere subjective sense of meaning. I prefer the simpler 'utility of life', while admitting that this label may also give rise to misunderstanding.

When evaluating the external effects of a life, one can consider its functionality for the environment. In this context, doctors stress how essential a patient's life is to its intimates. The life of a mother with young children is given higher value than the life of a woman of the same age without children. Likewise, indispensability at the workplace figures in medical quality of life notions.

At a higher level, quality of life is seen in contributions to society. Historians see

quality in the addition an individual can make to human culture, and rate for example the lives of great inventors higher than those of anonymous peasants. Moralists see quality in the preservation of the moral order and would deem the life of a saint to be better than that of a sinner. In this vein, the quality of a life is also linked to effects on the ecosystem. Ecologists see more quality in a life lived in a 'sustainable' manner than in the life of a polluter. In a broader view, the utility of life can be seen in its consequences for long-term evolution. As an individual's life can have many environmental effects, the number of such utilities is almost infinite.

Apart from its functional utility, life is also judged on its moral or esthetic value. For instance, most of us would attribute more quality to the life of Florence Nightingale than to that of a drunk, even if it appeared in the end that her good works had a negative result in the end. In classic moral philosophy this is called 'virtuous living' and is often presented as the essence of 'true happiness'. Here the focus is on mere 'experiential' happiness; on how much one likes the life one lives. The difference is well expressed in the earlier mentioned statement of Mill that he preferred an unhappy Socrates to a happy fool. Moral excellence is clearly not the same as feeling good.

## Core meaning: Subjective enjoyment of life

Finally, the bottom right quadrant represents the inner outcomes of life. That is the quality in the eye of the beholder. As we deal with conscious humans, this quality boils down to subjective enjoyment of life. This is commonly referred to by terms such as 'subjective well-being', 'life-satisfaction' and 'happiness' in a limited sense of the word. This is the kind of happiness the utilitarian philosophers had in mind and it is also the kind of happiness addressed here.

Humans are capable of evaluating their life in different ways. We have in common with all higher animals that we can appraise our situation affectively. We feel good or bad about particular things and our mood level signals overall adaptation. As in animals these affective appraisals are automatic, but unlike other animals it is known that humans can reflect on this experience. We have an idea of how we have felt over the last year, while a cat does not. Humans can also judge life cognitively by comparing life as it is with notions of how it should be.

Most human evaluations are based on both sources of information, that is: intuitive affective appraisal and cognitively guided evaluation. The mix depends mainly on the object. Tangible things such as our income are typically evaluated by comparison; intangible matters such as sexual attractiveness are evaluated by how it feels. This dual evaluation system probably makes the human experiential repertoire richer than that of our fellow creatures.

In evaluating our life, we typically summarize this rich experience in overall appraisals. For instance, we appreciate several domains of life. When asked how we feel about our work or our marriage we will mostly have an opinion. Likewise, most people form ideas about separate qualities of their life, for instance how challenging their life is and whether there is any meaning in it. Such judgments are made in different time-perspectives, in the past, the present and in the future.

Mostly such judgments are not very salient in our consciousness. Now and then,

they pop to mind spontaneously. Though not in the forefront of consciousness all the time estimates of subjective enjoyment of life can be recalled and refreshed when needed. This makes these appraisals measurable in principle.

# 2/2.3.2 Happiness and other enjoyments

Even when we focus on subjective enjoyment of life, there are still different meanings associated with the word happiness. These meanings can also be charted in a fourfold matrix. In this case, that classification is based on the following dichotomies: Life-aspects versus life-as-a-whole and passing delight versus enduring satisfaction.

Above, we have seen that appraisals of life can concern aspects, such as marriage or work-life, and one's life-as-a-whole. The word 'happiness' is used in both contexts. Obviously, such appraisals are linked. Enjoyment of aspects of life will typically contribute to the satisfaction with life as a whole (so-called bottom-up effect), and enjoyment of one's life-as-a-whole appears to foster the satisfaction with life-aspects (top-down). Still, these are not identical matters. One can have a happy marriage but still be dissatisfied with life-as-a-whole or be satisfied with life-as-a-whole in spite of an unhappy marriage.

Next, the experience of enjoyment can be short-lived or enduring. Again, the word happiness is used for both phenomena. Sometimes it refers to passing moods and on other occasions to stable satisfaction. Once more, these matters are related but not the same.

When combined, these distinctions produce the fourfold matrix presented in scheme 2/2.3.2. The distinction between part and whole is presented vertically, and the distinction between passing and enduring enjoyment horizontally.

## Instant satisfaction

The top-left quadrant represents passing enjoyments of life-aspects. Examples would be delight in a cup of tea at breakfast, the satisfaction of a chore done or the enjoyment of a piece of art. I refer to this category as 'instant-satisfactions'. Kahneman (2000:4) calls it 'instant-utilities'. This quadrant represents hedonistic happiness, especially when the focus is on sensory experience. The concept of happiness used here is broader, however. It concerns both overall satisfaction and life-as-a-whole. Though fleeting enjoyment obviously contributes to a positive appreciation of life it is not the whole of it.

#### Domain satisfaction

The top right quadrant denotes enduring appreciation of life-aspects, such as marriage satisfaction and job-satisfaction. This is currently referred to as domain-satisfactions. Though domain-satisfactions depend typically on a continuous flow of instant-satisfactions, they have some continuity of their own. For instance, one can remain satisfied with one's marriage even if one has not enjoyed the company of the spouse for quite some time. Domain-satisfactions are often denoted with the term happiness: a happy marriage, happy with one's job, etc. Yet here the term happiness is used in a broader sense, not for the satisfaction with aspects of life, but for the satisfaction with life-as-a-whole. One would not call a person happy who is satisfied with marriage and job, but still

dissatisfied on the whole because his health is failing. It is even possible that someone is satisfied with all the domains one can think of, but nevertheless feels depressed.

Scheme 2/2.3.2

Difference with other subjective enjoyments

	Passing	Enduring
Life aspects	Instant satisfactions (instant utility)	Domain-satisfactions
Life as a whole	Top experience	Life-satisfaction (happiness)

## Top experience

The bottom right quadrant denotes the combination of passing experience and appraisal of life-as-a-whole. That combination occurs typically in top-experiences, which involve short-lived but quite intense feelings and the perception of wholeness. This is the kind of happiness poet's write about. Again, this is not the kind of happiness aimed at here. A moment of bliss is not enduring appreciation of life. In fact, such top experiences even seem detrimental to lasting satisfaction, possibly because of their disorientating effects (Diener et. al. 1989).

Core meaning: lasting satisfaction with one's life-as-a-whole

Lastly, the bottom-right quadrant represents the combination of enduring satisfaction with life-as-a-whole. This is what I mean with the word happiness. A synonym is 'life-satisfaction'. This is the meaning the utilitarian philosophers had in mind when talking about happiness. When speaking about the 'sum' of pleasures and pains they denoted a balance over time and thus a durable matter.

# 2/2.4 Variable aspects of happiness

Happiness judgments may differ in several respects. I mention some to illustrate what is *not* in the definition used here.

One difference is in their certainty: some people are rather definitive about their appraisal of life, whereas others vacillate. Though one may attribute less value to the latter appraisals, the concept applies. Doubtful happiness is still happiness.

Another point of variation is how well considered the judgment is; some people judge rather intuitively, while others engage in elaborate contemplation. Likewise, appraisals of life are probably not always equally appropriate. Like any perception they can be distorted in various ways, such as by misattribution and self-deceit. This is commonly referred to as `false happiness'. Distorted judgments of life are clearly less valuable as an indicator of apparent quality of life. Nevertheless, inappropriate happiness is still happiness.

# 2/2.5 Focus on 'present' happiness

Evaluations of one's life may concern different periods of life: earlier life, current life and (expected) future life. This database is restricted to evaluations of 'present' life. These evaluations are probably colored by reminiscences of past happiness, and by hopes for the future. Yet they are not the same; one can be satisfied with present life in- spite, or even because of, earlier misery. Likewise, one can be unhappy now, but optimistic about the future.

# 2/2.6 Why this concept?

We have considered *how* happiness is defined above. Now I will discuss the reasons *why* that conceptualization is preferred above the many other definitions of happiness that have been proposed. In answering this question, I return to the above discussion, in particular to that on the difference with related concepts in section 2/3.

## Why not include life-chances?

In scheme 2/2.3.1 happiness is placed as an actual outcome of life and distinguished from concepts that denote good chances. In this respect the present conceptualization differs from current associations of the term with paradise and good health.

The main reason for limiting to outcomes is to be found in the purpose of this study. The goal is to find out which conditions are most conductive to happiness. If we include conditions in the definition of happiness we get into circular reasoning. Happiness must be conceptually distinguished from its possible determinants.

A second reason is that the quality of life-chances cannot be grasped comprehensively. Another look at scheme 2/2.3.1 may help to explain why not. Each of the top quadrants involves different qualities that cannot be meaningfully aggregated. In the livability quadrant one cannot add 'fresh air' to 'social justice'. Neither can one sum 'physical health' and 'school intelligence' in the life-ability quadrant. Moreover, the two top quadrants can neither be added in an overall index of life-chances. It is not the *sum* that

matters, but the *fit* of living conditions and life-abilities. A competitive free market society may set too high demands on insecure and slow people but may be the right pond for energetic individualists. There can be various fitting combinations of conditions and abilities and we cannot really reason out in advance what the best combinations are. Hence the quality of preconditions can only be assessed by their outcomes, and of all outcome variables happiness is the most comprehensive one. This implication is discussed in more detail in Veenhoven 2000 section 3.

The third reason is found in the aim for ethical neutrality. Notions about chances for a good life are heavily loaded by moral preferences about how life should be. Ideas about livability of society are largely guided by political ideology and notions about required competencies draw also more on normative thinking than on systematic observation. So, if we would include such notions into the definition of happiness we would not get beyond common prepossession.

# Why not include utility of life?

If one accepts that life-chances should not be included in the concept of happiness, one can still argue that all outcomes are considered and not just individual enjoyment of life. This would mean that the utility quadrant from scheme 2/2.3.1 (left-bottom) is also included. There are in fact definitions of this kind. For instance, Tatarkiewics (1973) defines happiness as 'justified' satisfaction with life. He does not call a useless life happy even if it is enjoyed by the lay-about. There is a point in combining the good and the pleasant, but there are also serious arguments against doing so.

The main problem is that there is no clear criterion to judge the utility of a life. If we focus on contributions to the environment, there is a multitude of possible effects in various spheres that can hardly be assessed and certainly not aggregated in a meaningful index. Problems are even greater if we judge life on moral criteria of perfection. In fact, we get stuck in the morass where most philosophy of happiness has ended.

Even if we could agree on some major utilities, there are still insurmountable problems. One is that external effects depend on context, raising children is less of a contribution to humanity in an overpopulated world than when the human species is about to die out. This is linked to the question of degrees of usefulness, how many books should an academic write to lead a useful life? The idea of 'justified' enjoyment requires that some minimal level can be pinpointed.

Last, but not least, the combination of these things would blind us to their actual interrelations. If we throw usefulness and enjoyment in one tub, we cannot see which useful behavior adds to the enjoyment of life and which detract from it. Hence this conceptualization precludes well-informed choice.

#### Why not emphasize short-lived pleasure?

A focus on subjective enjoyment of life (the bottom right quadrant in scheme 2/2.3.1) does not necessarily imply a restriction to the 'overall' enjoyment of ones 'life-as-a-whole' (right-bottom quadrant in scheme 2/2.3.2). Happiness is often described as short-lived satisfaction (left quadrants in scheme 2/2.3.2), in particular in poetry and advertisement.

The reason to focus on enduring enjoyment is obviously that we use the concept to learn more about the merits of lasting conditions, such as the organization of society and of personal lifestyles. If we define happiness as short-lived delight we will not become much wiser. The concept leads us then to shortsighted pleasure seeking. This is in fact a common argument against utilitarianism. A false reproach however, since the utilitarian concept of happiness does not restrict to passing pleasure.

Jeremy Bentham (1789) defined happiness as the 'sum of pleasures and pains'. He used these words 'pleasure' and 'pain' to denote all enjoyable and aversive experience. Not only sensory feelings, but also higher appraisals such as the joy of understanding and one's remorse when looking at personal failure. The word 'sum' refers to the whole of this experience and would involve all the criteria for appraisal used (overall) and application on all life-domains (life-as-a-whole).

The most basic reason for focusing on overall enjoyment of life is that this brings us closest to the most relevant biological signal. In our biological signal system short-lived likes and dislikes lead us toward or away from particular things, for instance a liking for sweet tastes guides to nutritious foods and a dislike of bitter tastes keeps us away from most poisonous fruits. Yet these sensory experiences tell us little about our wider adaptation. This is rather the function of the hedonic level in moods, which is not linked to specific objects of appreciation. As noted above, mood level signals typically whether we are in a 'right pond' or not, it indicates to what extent the whole of our needs is being met, and this is precisely what we want to know. In this line of reasoning we could even restrict to the hedonic level (the affective component described in chapter 2 of the Introductory text to the Bibliography of happiness, section 2/1.2.1).

# Why focus on life-as-a-whole?

Next the question why satisfaction with work or marriage is not denoted as happiness. One answer is again that the aim of the endeavor requires an encompassing concept. If people are quite satisfied with their marriage and work but not with their children, family and the government, there is clearly something missing. Such lacks reflect in the overall judgement of life, at least when these latter domains bear relevance.

Another reason is that domain-satisfactions are largely cognitive constructs, and hence quite vulnerable to social comparison and fashion. This is particularly true for satisfaction with easily comparable things such as income. Reversibly, estimates of overall enjoyment of life draw typically on unreasoned affect. This point is discussed in more detail in Veenhoven 1991 and 1997).

## Why focus on present happiness?

Lastly, why does this database limit to present happiness? The main reason is that present happiness bears most information about how well the individual is doing. Since it draws on recent affective experience it is the most likely to reflect need gratification (remember section 2/1.2.3). Notions of past and future happiness can be mere dreams. In fact, there are indications that present unhappiness can give rise to rosy views of happiness in earlier periods and instigate wishful expectations of future happiness.

## 2/3 ACCEPTABLE MEASURES OF HAPPINESS

## 2/3.1 Validity of self-reports

# 2/3.2 Accepted measures

- 2/3.2.1 Measures on overall happiness
- 2/3.2.2 Measures on hedonic level of affect
- 2/3.2.3 Measures on contentment
- 2/3.2.4 Mixed measures

# 2/3.3 Rejected measures

2/3.3.1 Inventories involving other qualities of life

scheme

- Questionnaires on 'adjustment to old age'
- Questionnaires on 'health related quality of life'

2/3.3.2 Inventories involving other enjoyments

scheme

- Summed domain satisfactions
- Summed aspect satisfactions

2/3.3.3 Deficient indicators of happiness

- Happier than others
- Happier than in the past
- Preference for other life

#### 2/3.4 Sense of selectiveness

This text is similar to chapter 4 of the introductory text to the Collection Measures of Happiness

Can happiness -as defined above- be measured? Since happiness polls became part of our methodology in the 1960's, there has been an ongoing debate on this point. The following issues figured in this discussion: Can happiness be measured 'objectively' or only 'subjectively' by questioning? If questioning is the only way to assess how people judge life, do interviews tap an existing state of mind or do they merely invite a guess? If people do indeed have an idea about their enjoyment of life, do their responses to questions reflect that idea adequately? These questions have instigated a great deal of empirical research and can now be fairly well answered. (Research reviewed in Veenhoven, 1984, chapter 2.)

'Measurement' was long understood to be an 'objective', 'external' assessment, analogous to the measurement of blood pressure by a doctor. It is now clear that life- satisfaction cannot be measured this way. Steady physiological concomitants have not been discovered and it is doubtful that they ever will be.

Neither has any overt behavior been found to be linked reliably to inner enjoyment of life. Like all attitudes, happiness is reflected only partly in overt behavior. Though 'active', 'outgoing' and 'friendly' behavior is more frequent among the happy; it is also observed among unhappy persons. Likewise, unconscious body language does not reliably indicate inner appreciation of life. Consequently, ratings of someone's happiness by his peers or teachers are only weakly related to self-reports. The case of suicide was long considered to be an exception. This kind of behavior was thought to indicate extreme unhappiness, however, abundant research in this field has made it clear that dissatisfaction with life is at best one of the motives for suicide. Because there is a great cultural and personal variation in individuals' capacity to cope with unhappiness, suicidal behavior is only loosely related to degree of unhappiness.

Inference from overt behavior being impossible, we must make do with questioning, either directly or indirectly, in a personal interview or by using an anonymous questionnaire.

# 2/3.1 Validity of self-reported happiness

Several doubts have been raised about the quality of responses to survey questions about happiness, in particular regarding the validity of single items on overall happiness.

One of the doubts is that most people would have no opinion about their appreciation of life. Answers to questions on that subject would therefore reflect other things: in particular prevailing norms of self-presentation. However, people appear quite aware of their enjoyment of life: eight out of ten Americans think of it once a week or more. Consequently, responses on happiness items tend to be prompt. No response is common.

There is also the objection that people claim themselves to be happier than, deep in their heart, they know they are. Both ego-defense and social desirability bias are said to be involved. This distortion has been mentioned as an explanation for several often-observed phenomena: the over-representation of 'very happy' people, the fact that most people perceive themselves as happier than average and the discovery that psychosomatic complaints are not uncommon among persons who characterize themselves as happy. Yet, these facts provide no proof of desirability distortion. There are good reasons why most people could honestly imagine themselves happier than average. Presence of psychosomatic complaints does not necessarily exclude a positive appreciation of life either. The proof of the pudding is a demonstration of distortion itself. Several clinical studies have tried to show this but failed to find evidence for a general overstatement of happiness.

Although there is no proof of systematic desirability distortion, there is evidence that responses to questions on happiness are liable to various situational influences, such as the site of the interview, the interviewer, the weather, one's

mood, etc. These differences can be considered as essentially random error. More systematic measurement error is also involved. The precise wording of the questions, answer formats, sequence of questions and context of the interview influences responses. These effects can cause problems when scores on different measures of happiness are compared.

# 2/3.2 Accepted measures

Having established that happiness can be measured in principle, we can proceed to consider the specific methods of assessing it. We now meet a great variety of questionnaires and interrogation techniques. During the last decades more than a hundred methods have been proposed; some of them presented under impressive names such as 'Life Satisfaction Index', 'General Satisfaction Score' or 'Happiness Scale'. Many of these methods labor under rather obvious defects.

Most methods depend on questioning. Hence the most current defect is that questions are inappropriate. Several do not ask about happiness as defined here but solicit responses about subtly different things. Close reading shows that many items in so called 'happiness scales' refer to things like 'optimism', 'frustration tolerance' and 'social adjustment'. Investigators who use such questionnaires typically fail to define happiness formally.

Another current defect is that methods are not sufficiently specific. Some 'expert-ratings' for example, do not clearly define what the expert regards as happiness. Similarly, methods based on 'content analysis' sometimes lack clear instructions for interpretation. Again, this is often a result of slovenly conceptualization. Sometimes even more basic defects appear, for example, when happiness is assessed on the basis of estimates by peers who do not know the individual's private thoughts and therefore base their estimate on his overt behavior and living conditions.

Elsewhere I have screened all the current measures for applicability to the concepts defined in section 1. The following indicators were deemed acceptable (Veenhoven 1984: chapter 4).

## 2/3.2.1 Measures on overall happiness

Overall happiness can only be assessed by direct questioning. It cannot be measured indirectly by questions that tap essentially different matters that are assumed to be related to happiness, such as the related concepts discussed in section 1.3. Direct questions on overall happiness can use various key terms. One of the appropriate words is 'happiness', provided that the context of the question makes clear that happiness-in-life is concerned, rather than happiness-of-the-moment. Another acceptable term is 'satisfaction-with-life'. Questions can be framed in different ways: as closed questions, as open-ended questions and as focused

interviews. In the latter two cases, clear instructions for content analysis of responses are required.

Overall happiness cannot be assessed by peer-ratings, because peers do not know precisely what the subject has on his mind and rather tend to imagine how they themselves would feel if they were in the subject's shoes.

#### 2/3.2.2 Measures on hedonic level of affect

Hedonic level of affect can be assessed in three ways: by direct questioning, by projective tests and by ratings based on non-verbal behavior. Again, the method of direct questioning is to be preferred, in particular when the individual is asked several times during a certain period how pleasant he/she feels at that given time (experience sampling). Though generally less dependable, indirect methods can sometimes suffice. Some projective tests at least seem to be reasonably valid. Ratings by others on the basis of non-verbal behavior are also acceptable, provided that rating instructions are sufficiently specific. Unlike cognitive judgments, affective conditions may manifest fairly reliably in non-verbal behavior.

#### 2/3.2.3 Measures on contentment

Contentment can be measured only by using direct questions. Like overall happiness, it cannot be validly assessed by indirect questioning or by peer-ratings. Direct questions must again be specific. In this case this means that the question must clearly focus on realization of wants in a life-perspective. Such questions are probably best understood when preceded by an enumeration of one's major aspirations. Questions can again be framed in various formats.

#### 2/3.2.4 Mixed measures

Finally, there are several acceptable indicators that cover two or more of the happiness variants. The majority of these consist of single direct questions, which by wording or answer format refer to overall happiness as well as to hedonic level. As long as they do not labor specific deficits, these questions are acceptable.

Some indicators work with multiple questions. Characteristically these questions cover both overall happiness and one or both of the discerned components. When all separate items meet the demands outlined above, such composite indicators are accepted.

A last method to be mentioned in this context is the focused interview of which the 'depth interview' is a variant. Such interrogations tend to cover all three happiness variants. A lack of clear reports on the themes of inquiry and on rating procedures mostly makes it difficult to assess their validity.

# 2/3.3 Rejected measures

Many of the currently used indicators in the field of subjective well-being do not to fit the concept of happiness as defined here. Such indicators are therefore not included in this catalog and hence observations yielded by these measures are also not included in the finding-catalogs of this database. This implies rigorous selection: about 80% of the research literature in the field of subjective well-being will be left out, for instance almost all the research on 'health related quality of life'.

The selection is based on an inspection for face validity. That is, close reading of the questions or instructions to assess whether happiness as defined here is assessed. This process is reported in full detail in Veenhoven 1984: chapter 4 and Veenhoven 2000: section 3). I present some illustrative cases below.

# 2/3.3.1 Inventories involving items on other qualities of life

Many currently used measures of well-being consist of lists of questions, part of which refer to happiness and part to related concepts. Scheme 2/2.3.1 is a good help to take stock of the substantive contents of such inventories. As an illustration it is applied to the 24 items in Sheeney's 'Wellbeing Scale. See scheme 2/3.3.1. Clearly only some of the items are in the right-bottom enjoyment quadrant.

#### Scheme 2/3.3.1

Illustrative use of **scheme 2/2.3.1** to sort items in a questionnaire: Sheeney's (1982: 443-449) 'Well-being scale'

	Outer qualities	Inner qualities
Life chances	Has love relation	In control over life
Life results	Lives usefully (vs. ordinary)  Contributes to society	Interested in life Satisfied with life-domains Satisfied with life-as-a-whole Feels to realize dreams

Questionnaires on 'adjustment to old age'

Such questionnaires are commonly used in gerontological research. The inventories mix questions about happiness typically with items on 'social participation', 'future orientation' and 'activity' i.e. Lawton's (1975) PGMC and the often used 'Lifesatisfaction Scale' of Neugarten et all (1961).

These measures are rejected, because it is not at all sure that high social participation, future orientation and vigor always mark a high appreciation of life. There are always socially active, future orientated and vigorous people who are profoundly dissatisfied with their life. Moreover, one can question an orientation on the future in the third age.

Scores on indicators of this kind cause contamination in correlational analysis: e.g. when vigor is an item in a happiness index, scores on this index correlate with vigorous behaviors. For the purpose of comparison through time and between nations, such scores are also problematic, because concomitants of happiness are typically not the same in all countries at all times. Social activity is more crucial in modern individualistic society than in the context of embedded collectivism.

#### Health related QOL-inventories

A comparable generation of questionnaires has developed in research on the outcomes of medical treatment. There are general purpose questionnaires and questionnaires that focus on the sequel of specific illnesses. An example of the former is the much-used SF-12 (Ware et al 1996). This inventory is largely about physical capability (e.g. climbing the stairs) and functioning in social roles (e.g. work). It also involves questions about general health, vitality and mood. One item is about recent happiness. An example of a special illness inventory is the 'Life-Satisfaction Questionnaire (LSQ) by Carlson et. all. (1996). This 43-item questionnaire focuses on the condition of breast-cancer patients. The questions concern physical complaints, daily performance, quality of social relations and several domain-satisfactions. Fear for death is not included in this list, but figures in several other inventories.

Happiness as defined here is at best a side issue in these questionnaires. Hence they are also rejected.

# 2/3.3.2 Inventories involving other enjoyments

A lot of inventories cover a wide variety of enjoyments. Scheme 3/3.2 presents an example of the assortment in the 40-item SUBI questionnaire. Items are found in all the boxes. In the sum-score items about overall happiness have the same weight as of sleeping badly? Next to these enjoyment items, the inventory has also questions that belong in the top-quadrants of scheme 2/3.1, for instance items on availability of

social support (livability) and about stress resistance (life-ability). There are many such muddy measures. Though they typically involve acceptable items on happiness the sum-scores cannot be accepted.

#### Summed life-domain satisfactions

A common variant is to measure overall satisfaction (right bottom quadrant) by aggregating satisfaction with various life-domains (right top quadrant). For instance, by computing the average of satisfaction with 'work', 'marriage' and 'leisure'. Andrews & Withey (1976) presented several such sum-scores, long and short ones, weighted and unweighted. This method has several drawbacks.

Firstly, it does not adequately reflect the individuals 'overall evaluation'. Such sum-scores tap selected aspects of life only, not

Scheme 2/3.3.2 Illustrative use of **scheme 2/2.3.2** to sort contents of a satisfaction inventory: Nagpal, R. & Sell, H. (1985) 'Subjective Well-Being Inventory (SUBI)

	Passing	Enduring
Life aspects	Agitated Pain Tired	Satisfaction with life-aspects Satisfaction with life domains Fulfillment of expectations Specific worries
Life as a whole	Ecstatic experiences Oceanic experiences	Overall happiness  Contentment

the ones selected by the subject.

Secondly, not all aspect-satisfactions apply equally well to everybody, how about marriage-satisfaction of the unmarried and the job-satisfaction of the unemployed?

Thirdly, the significance of life-aspects such as 'work' and 'marriage' is not the same across time, culture and social categories. Comparison is therefore often not

possible using such indicators.

Part of these problems can be met by asking respondents to rate domains by importance and then compute a weighted average. Yet this does not solve the problem of missing domains and it is not sure that perceived importance equals actual impact. In fact, this method assumes a 'bottom up' evaluation of life, while there is growing evidence that 'top down' appraisal is most common (Veenhoven 1997: 59-62).

# Summed life-aspect satisfactions

These objections also apply to 'semantic-differential scales', which involve the ratings of one's life on various evaluation criteria, such as 'boring/interesting', 'lonely/friendly' and 'hard/easy'. Again, each of the items falls short as an indicator of overall happiness, an interesting life is not necessarily a satisfying life and neither is an easy life always more gratifying than a hard life. Taken together several such items do not provide a good estimate of the overall evaluation either, because the weights are likely to differ across persons and to be variable across time and culture. Such a semantic differential scale is part of the much-used 'Index of Wellbeing' of Campbell et al. (1976), and this index is therefore not acceptable.

# 2/3.3.3 Deficient indicators of happiness

There are also many measures that do focus on happiness as defined here, but that fail to use sufficiently sharp questions. Some illustrative examples are presented below. This check pans out negatively for multiple item questionnaires on happiness. The more items the greater the chance of one being incorrect, and if one item is wrong, the whole questionnaire is rejected.

## Comparison with others

Several investigators have asked their subjects how happy they think they are compared to others, rather than how they feel themselves. Such items are rejected. Even if one is happier than one's neighbor is, one can still be unhappy. This invalidates the four-item 'Subjective Happiness Scale' (SHS) of Lyubomirsky and Lepper (1999), the second items of which is perceived happiness relative to peers.

## Better than in the past

For the same reason the item 'I have been happier than I am now' is deemed unacceptable. Being less happy than before does not imply that one is unhappy.

Preference for another life

Some investigators derive happiness from responses about questions on appreciation of alternative ways of life. For instance: one of the items in Diener's (1985) 'Satisfaction With Life Scale' (SWLS) is 'If I could live my life over, I would change nothing'. This item is also rejected, and thereby the scale as a whole. An individual could be quite happy, but still opt to try life another way if one could live one's life over. There are clearly many roads to happiness and most people know this.

#### 2/3.4 Sense of selectiveness

Altogether I reject more than half of the measures that claim to tap happiness or lifesatisfaction. Since this involves many commonly used inventories, this selection leaves out some 80% of the research literature in the field of subjective well-being. Why be so choosy?

The reason is we will never get any wiser if we go on using sloppy concepts. That is why in section 1 I defined happiness in a much narrower way than understood in common language. The aim of this database is to gather the empirical findings on this specific kind of happiness, with the very purpose of reducing the conceptual ambiguity found in current research. Obviously, this requires that we limit only to measures that deal with matter as defined in section 1.

Why then focus on the enjoyment of life and not on another quality of life? I have given several reasons in section 2/6. Happiness is the most comprehensive indicator of quality of life. This concept does not bring us into circular reasoning when evaluating society and our way of life. Happiness can be understood to be functional in a biological perspective. In this section we have seen that it is also a matter that can be measured full stop.

#### **REFERENCES**

Andrews, F.M. & Withey, S.B., (1976) Social indicators of well-being, New York, U.S.A., Plenum Press.

Bentham, J. (1789)

An introduction into the principles of morals and legislation

London

Campbell, A & Converse, P. & Rodgers, W.L (1976) The Quality of American Life, New York, U.S.A., Sage.

Carlson, M.& Harming, E. (1996)

Measurement of quality of life in women with breast cancer. Development of a Life Satisfaction Questionnaire (LSQ-32) and a comparison with the EORTC QLQ-C30 Quality of Life Research, 5, 265-274

Diener, E., Emmons, R.A., Larsen, R.J. & Griffin, S. (1985) *The satisfaction with life scale* Journal of Personality Assessment, 49, 71-75.

Diener, E., Pavot, W. & Sandvik, E. (1989)

Happiness is the frequency, not intensity of positive and negative affect
In: Strack, F. et. al. (Eds.) The social psychology of subjective well-being', Wiley, London UK

Dupuy, H.J. (1984)

The psychological general well-being index (PGWB)

In: Wenger, N. et al (eds.), "Assessment of quality of life", U.S.A., Le Jacq Publishing.

Kahnemann, D. (1999)

Objective happiness

In: Kahnemann, D., Diener, E. & Schwarz, N. (eds) 'Well-Being: The foundations of hedonic psychology', Russell Sage Foundation, New York, pp. 3-25.

Kainulainen, S. Saari, J. & Veenhoven, R. (2018)

Life-satisfaction is more a matter of feeling well than having what you want: Tests of Veenhoven's theory

International Journal of Happiness and Development, 4 (3) 209-235

Lane, R.E. (1994)

Quality of life and quality of persons. A new role for government? Political theory, 22, 219-252

Lawton, M.P. (1975)

Philadelphia geriatric center morale scale-revision Journal of Gerontology, 30, 85-89.

Lyubomirsky, S. & Lepper, H.S. (1999)

A measure of subjective happiness: Preliminary reliability and construct validation Social Indicators Research, 46, 137-155

Mill. J.S. (1863) *Utilitarianism*Fontana Press 1990 (20th print)

Neugarten, B.L., Havighurst, R.J. & Tobin, S.S. (1961) *The measurement of life-satisfaction* Journal of Gerontology, 16, 134-143.

Nordenfelt, L. (1989)

Quality of Life and Happiness

Björk, S.& Vang, J. (Eds.).: "Assessing Quality of Life", Health Service Studies nr 1, Samhall Klintland, Sweden, 17 - 26

Sen, A: (1992)

Capability and well-being

In: Sen, A. & Nussbaum, M (Eds.) 'The quality of life', Clarendon Press, Oxford, UK, pp. 30-53

Tatarkiewicz, W. (1973)

Analysis of happiness

Nijhoff, The Hague, Netherlands

Veenhoven, R. (1984)

Conditions of Happiness,

Dordrecht, Netherlands, 1984, Reidel, (reprinted 1989 by Kluwer).

Veenhoven, R. (1991)

Is happiness relative?

Social Indicators Research, 24, 1-34

Veenhoven, R. (1996)

Happy life expectancy. A comprehensive measure of quality-of-life in nations Social Indicators Research, 39, 1-58

Veenhoven, R. (1997)

Progrès dans la compréhension du bonheur

Revue Québécoise de Psychologie, 18, 29-74

# World Database of Happiness

Correlational findings

Introductory text

Also available in English 'Advances in the understanding of happiness'

Veenhoven, R. (1998)

Vergelijken van geluk in landen (Comparing happiness across nations)

Sociale Wetenschappen, 42, 58-84

Veenhoven, R. (2000)

The four qualities of life: Ordering concepts and measures of the good life

Journal of Happiness Studies, 1, 1-39

Ware, J.E., Kosinski, M. & Keller, M.D. (1996)

A 12-item short form Health Survey: construction of scales and preliminary tests of reliability and validity

Medical Care, 34, 220-233

Zajonc, R.B. (1980)

Feeling and thinking: Preferences need no inferences

American Psychologist, 35 (2), 151–175.