

DAILY HAPPINESS

How well we feel most of the time

Ruut Veenhoven¹

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1 INTRODUCTION

The word 'happiness' is commonly used in literature on emotions, but not always with the same meaning. In this chapter I will first delineate the many meanings of the term happiness as used by researchers, and then I will focus on happiness defined in the sense of 'feeling well most of the time'. I will then review the available scientific literature on this kind of happiness and consider 1) how it is measured, 2) how well people typically feel, 3) why some people feel mostly better than other people do and 4) on the consequences of feeling good or bad most of the time. To do this I draw on the growing body of empirical research on daily mood, the results of which are gathered in the World Database of Happiness (Veenhoven 2017), which serves as an online appendix to this chapter.

2 NOTIONS OF 'HAPPINESS'

The word 'happiness' is used for different meanings. I have distinguished several commonly used connotations of the term in Veenhoven (2015), following the three-step conceptual analysis below. This paper is about one of these many meanings, that is 'daily mood'. A good understanding of that phenomenon requires that we see the difference with related matters called by the same name.

2.1 Four qualities of life

A first step is to distinguish happiness from other notions of the good life. Qualities of life can be ordered in a 2 by 2 classification as shown on Figure 1. In this section I use this scheme to distinguish the kind of happiness addressed in this chapter. Later in this chapter I will also use this scheme to discern different determinants of this kind of happiness.

Livability of the environment

The top-left quadrant of Figure 1 represents the presence of good external living

¹ Erasmus University Rotterdam, The Netherlands, Erasmus Happiness Economics Research Organization and North-West University South Africa, Opentia Research Program. E-mail: veenhoven@ese.eur.nl

conditions; with the least livable conditions found in ‘hell’ and most livable conditions in ‘paradise’. This notion is central in ‘objective’ conceptions of the good life, that is, a notion of conditions in which humans will thrive. This notion is the favorite of policy makers.

Life-ability of the individual

The top-right quadrant of Figure 1 denotes the inner qualities required to deal with environmental conditions. This notion is central to the ‘capability approach’ and to the related notion of ‘eudemonic happiness’. This meaning is favored by educators and therapists.

Usefulness of life

The bottom-left quadrant of Figure 1 denotes the effects of one’s life on the environment, for instance how supportive one is to one’s fellow humans and what one contributes to human culture. This rather intangible meaning is favored by moralists.

Satisfaction with life

All three the above notions of quality of life concern objective conditions that are observable by outsiders, of which the individual is not necessarily aware. In contrast, the fourth notion at the bottom-right in Figure 1 is essentially subjective. This satisfaction quadrant in Figure 1 denotes one’s quality of life in the eye of the beholder. This is how much a person enjoys his or her life.

Figure 1: **Four qualities of life**

	<i>external</i>	<i>internal</i>
<i>chances</i>	Livability	Life-ability
<i>outcomes</i>	Utility	Satisfaction

2.2 Four kinds of satisfaction

There are different kinds of satisfaction, which are often mixed up in the literature on subjective wellbeing. These variants can also be charted in a fourfold classification, see Figure 2.

Pleasure

The top-left quadrant of Figure 2 represents passing enjoyment of aspects of one’s life. Examples would be the delight in a cup of tea at breakfast, one’s fleeting satisfaction with a chore well done, enjoyment of a piece of art or a fine sunset. I refer to this category as ‘pleasures’. In the psychology of emotions this is often called (momentary) ‘happiness. In happiness-economics it is denoted ‘instant utility’ (Kahneman et al. 1997).

Domain satisfactions

The top right quadrant of Figure 2 denotes enduring satisfaction with aspects of one's life, such as with one's marriage or job. This is currently referred to as 'domain-satisfaction'. Although domain-satisfactions depend typically on a continuous flow of pleasures, they also have some continuity. For instance, one can remain satisfied with one's marriage, even if one has not enjoyed the company of one's spouse for some time. The term 'happiness' is also used in this context, such as for 'marriage-happiness' and 'happiness at work'.

Top-experience

The bottom right quadrant of Figure 2 denotes the combination of passing experience and satisfaction with one's life-as-a-whole. This combination occurs typically in peak-experiences, which involve short-lived but quite intense feelings and the perception of wholeness. In poetry, this kind of satisfaction is often referred to as 'happiness'. Likewise, in religion ecstatic states of 'enlightenment' are often referred to using the word 'happiness'.

Life-satisfaction

Lastly, the bottom-right quadrant of Figure2 represents the combination of enduring satisfaction with one's life-as-a-whole, that is, how much we like the life we live. This meaning is close to what the enlightened philosopher Jeremy Bentham (1789) had in mind when he described happiness as 'the sum of pleasures and pains'. This meaning of the word dominates in present day social scientific 'happiness studies'. I have delineated this meaning in more detail in Veenhoven 1984; ch2.

Figure 2: **Four kinds of satisfaction**

	<i>passing</i>	<i>enduring</i>
<i>Parts of life</i>	Pleasure	Domain/aspect satisfaction
<i>Life as a whole</i>	Top experience	Life-satisfaction

2.3 Components of happiness

When appraising how much we like the life we live; we draw on two sources of information: 1) how well we feel generally, and 2) how well our life-as-it-is compares to standards of how- life-should-be. These sub-appraisals are seen as 'components' of happiness, respectively the affective component called 'hedonic level of affect' and the cognitive component called 'contentment'. This distinction is discussed in more detail in Veenhoven (2009), in which I propose a theory about difference in the determinants of these components. See Figure 3.

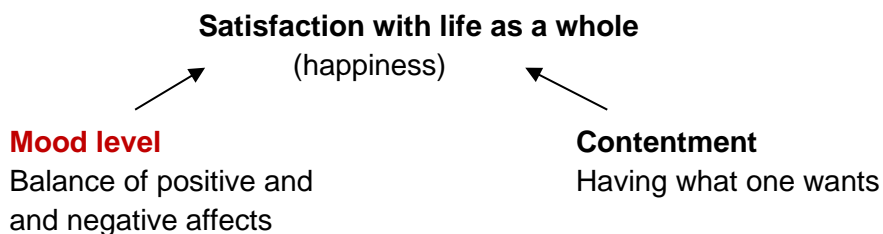
Hedonic level of affect

Like other animals, humans can feel good or bad, but unlike other animals, we can reflect on that experience, assess how well we feel most of the time and communicate how we feel to others. This is the feeling-based part of happiness.

Contentment

Unlike other animals, humans can also appraise their life cognitively and compare their life as it is with how they want it to be. Our wants are typically guided by common standards of the good life and in this sense, contentment is likely to be more culturally variable than affect level. Cognitive appraisal of life assumes the intellectual capacity to do so and for this reason this concept cannot apply to people who lack this capacity, such as the severely mentally handicapped and young children who cannot yet oversee their life-as-a-whole and thus can have no clear standards in mind.

Figure 3: **Components of happiness**



Focus of this chapter

This chapter is about the affective component of happiness, called 'hedonic level of affect' or 'daily mood'.

3 MEASURES OF DAILY MOOD

Daily mood is assessed in two main ways: 1) by questioning and 2) by observation of an individual's expressive behavior. Though pleasant experiences root in biochemical processes, hedonic experience cannot be measured using physiological indicators, at least not at the present stage of research.

The available measures of happiness are gathered in the collection 'Measures of Happiness' of the 'World database of Happiness' (Veenhoven 2017). To date this collection holds 480 measures that focus on hedonic level of affect. The collection is available on internet at http://worlddatabaseofhappiness.eur.nl/hap_quer/hqi_fp.htm, where the full texts of each of these measures is provided, coupled with and links to findings obtained in studies that used these measures.

3.1 Questioning

Daily mood can be measured using self-estimates of how well one feels most of the time. Such estimates are vulnerable for various biases (Kahneman et al. 1997) and therefore mood level is also measured using self-reports of more specific affective experiences from which an investigator distils an average.

Self-estimates of how well one feels most of the time

A common question of this kind reads as follows:

- How is your mood these days?
- 5 good almost always (or always)
 - 4 good usually (most of the time)
 - 3 sometimes good, sometimes bad
 - 2 bad usually
 - 1 bad almost always

These questions differ slightly in lead item, and rating scale. Sometimes more such single questions are combined in an index.

Investigator-made combinations of reported specific affects

Other measures ask individuals to report their experience of specific positive and negative affect and then the investigator will construct an average score on the basis of their answers. A commonly used measure of this kind is Bradburn's Affect Balance Scale (ABS).

- During the past few weeks, did you ever feel? (yes/no)
- Particularly excited or interested in something?
 - So restless that you couldn't sit long in a chair?
 - Proud because someone complimented you on something you had done?
 - Very lonely or remote from other people?
 - Pleased about having accomplished something?
 - Bored?
 - On top of the world?
 - Depressed or very unhappy?
 - That things were going your way?
 - Upset because someone criticized you?

In this method, the average score for negative affects is subtracted from the average score for positive affect, which in the case of the ABS results in a possible 11 step range from minus 5 to plus 5. Variants of this method use other sets of affects, different time frames, rating scales and summations.

Investigator-assessed average of reports of mood of the moment

Another technique used to assess daily mood is to ask repeatedly how well a person feels at that moment and next compute an average of all the responses. This method is known as 'Experience Sampling' and today is commonly applied using cell-phones. A common question reads

- Describe the mood as you were beeped
- 1 very sad 7 very happy

This method is also applied using multiple questions on specific momentary affects, i.e.as in the example below

Below is a list of words describing moods and feelings. Indicate how each of these words applies to how you feel now.

- Contented
- Calm
- Happy
- Pleased
- Satisfied
- Cheerful
- Good

1 not at all, 2 somewhat or slightly, 3 mostly or generally

To date the World Database of Happiness holds some 130 variants of this method. One of these variants takes advantage of the availability of GPS function of some cell-phones, which can then be used to provide information on how well people feel in particular places. See <http://www.mappiness.org.uk>

Another kind of multiple-moment assessment is to use a 'Happiness Diary' instead of beeping someone several times a day. An advantage of this method is that a more complete picture of daily mood can be obtained. This method requires that the diary is completed at the end of each day or on the next day about the previous day. The latter approach is known as the 'Day Reconstruction Method' (DRM) (Kahneman et. al 2004), and an internet application of this method is available at <http://happinessindicator.com>

Indirect questioning

Psychologists often measure mental phenomena in indirect ways, by asking multiple questions on things they deem to be related. Such question could be 'Is the weather mostly fine', where the assumption is made that people who think so are typically in a good mood. Such question can also tap other phenomena, such as the actual climate or wider optimism and it is for this reason that such measures are not included in the above-mentioned collection of valid Measures of Happiness of the World Database of Happiness.

A related technique, that has also been rejected, is that of inferring typical affect from responses to questions about ambiguous cues, such as an inkblot in the Rohrschach test or a picture in the Thematic Apperception Test TAT.

Content/analysis of ego documents

Another indirect way of measuring how people feel most of the time is the analysis of ego documents, such as diaries or Face-book messages. The validity of this approach is also quite dubious and for that reason such measures are not included in the World Database of Happiness either.

3.2 Behavioral observation

Affective experience reflects to some extent in non-verbal behavior, such as in facial expression, tone of voice and body posture. These indicators are typically used to assess daily mood in cases where dependable self-reports are not available, such as

for toddlers or mentally disabled people.

Rating by intimates

Observations of this kind are typically solicited from people who know the individual to be rated well and see them regularly, i.e. parents, nurses, teachers or peers. To date the World Database of Happiness holds some 70 measures of this kind. An example is:

Overall, how does your child usually feel?
1 2 3 4 5 6 7
sad face happy face

Rating by investigators

Some studies involve face-to-face interviews where the interviewer rates the cheerful appearance of the respondent during the interview, either on a global rating or as separate ratings of facial expression, tone of voice and body posture. An example is:

- The look is: open / evasive / impossible to say
- The corners of the mouth turn: up / down / impossible to say
- The posture is: relaxed, at ease / rather tense / impossible to say
- The movements are: relaxed, at ease / limited, withdrawn / impossible to say
- The eyes are: big, open / small, screw up / impossible to say
- The elbows are kept: not close to the body / close to the body / impossible to say
- The lips are more: broad, full / thin, pent up / impossible to say
- All in all, the subject looks: quite cheerful / not very cheerful / difficult to say

A variant of this method is 'time-sampling'; here such observations are made at particular moments, which are then taken together to provide a sample of daily experience. Below is an example for rating by parents of the pleasure displayed by their baby in different low stimulus intensity situations, such as:

When playing quietly with one of his/her favorite toys, how often did the baby show pleasure?
- never
- very rarely
- less than half the time
- about half the time
- more than half the time
- almost always
- always.

Automatic face/voice recognition

A promising new development in this line is the use of automatic ratings of behavioral indications of mood using audio and visual recordings. The validity of such measures is still under investigation.

4 PREVALENCE OF GOOD MOOD

The above-mentioned indicators of daily mood have been used in survey studies among the general population and typically it has been found that most people feel well most of the time. The first such surveys were done in affluent western nations and a typical finding is presented below:

How are you feeling now?	
- very good	33,9%
- good	47,7%
- neither good nor poor	13,8%
- poor	3,8%
- very poor	0,7%

(18-88 aged, general public, Denmark, 1993.
Data [Ventegodt 1998](#))

Since the start of the Gallup World Poll (GWP) in 2005, daily mood has been assessed annually in the general population of almost all nations of the world, using questions on specific affects experienced yesterday, and then an Affect Balance Score is computed. The 10-item version of that 'yesterday's affect balance' is presented below.

- Did you feel yesterday (yes/no)
- well-rested
 - treated with respect
 - smile and laugh a lot
 - learn or do something interesting
 - enjoyment
 - physical pain
 - worry
 - sadness
 - stress
 - anger

I computed for each nation the percentage of 'yes' responses to the positive and the negative items and next subtracted the latter from the former (Veenhoven 2017c). The result is positive for all countries, meaning that positive feelings typically outweigh negative feeling in the present-day world, however, the balance of affects is not equally positive in all countries as can be seen for the examples given below.

% more positive affect than negative affect experienced yesterday	
- Taiwan	59%
- Denmark	57%
- China	52%
- USA	47%
- France	46%
- Bhutan	44%
- Russia	43%
- Korea (south)	37%

- Cuba	35%
- Turkey	32%
- Armenia	18%
- Iran	17%
- Iraq	6%

Data: Gallup World Poll 2015. The full list of 132 nations over the years 2005-2012 is available in table [24E](#) of the Collection 'Happiness in Nations of the World Database of happiness'.

These differences in the affective component of happiness across nations do not always concur with the observed differences in cognitive evaluation of life, as measured using the Cantril ladder in the same Gallup World Poll. The concordant cases are 1) West European nations, where both the affective and cognitive components rank high, 2) Asian nations where both rank medium and 3) Islamic nations, where both components of happiness are low. The discordant cases are: a) African nations, where mood is fairly high but contentment low, b) Latin American nations, where mood is high but contentment is at a medium level and c) post-communist nations where mood is low and contentment medium (Brulé & Veenhoven 2015). These divergent scores illustrate the necessity to differentiate between the many things called 'happiness'.

5 DETERMINANTS OF GOOD MOOD

Why does not everybody feel equally well? One way to answer this question is to consider the mental processes which make us feel good or bad and another way is to look at conditions that affect the outcomes of these processes.

5.1 Mental process

It is commonly assumed that happiness results from a cognitive evaluation of life, in which notions of how-life-should-be are compared with perceptions of life-as-it-is. This cognitive theory is also applied to affective experience, e.g. by Oatley (1992). I do not share this view, among other reasons because it cannot apply to young children, who can have no notions of how-life-should-be on their mind, but can still feel good or bad. In my view, affective experience can better be seen as an instinctive bio-psychical signal, that is at best modified by thinking (Veenhoven 2009).

Mood as informant

From this perspective, mood is an affective meta-signal that, contrary to feelings and emotions, is not linked to specific objects. 'Emotions' denote an affective reaction to something and prepare the organism for a response, a negative 'mood' signals that there may be something wrong and urges the organism to find out what that is. In this sense, good or bad mood is comparable to a green or red light on a machine that signals respectively that all parts of the machine function properly (go on) or that

there is something wrong (stop and check).

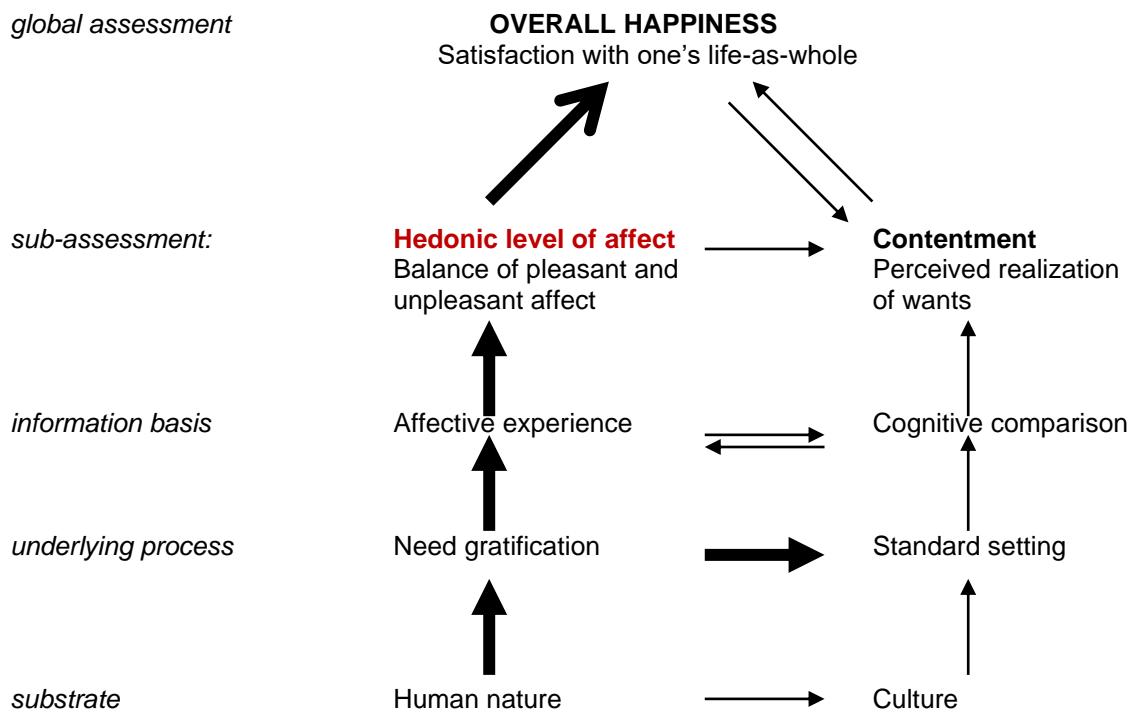
Gratification of needs

Affects are an integral part of our adaptive repertoire and seem to be linked to the gratification of human needs. ‘Needs’ are requirements for survival, such as eating, bonding and exercise. A plausible list of our innate human needs is found in Maslow (1954). Nature seems to have safeguarded the gratification of these needs using affective signals such as hunger, love and zest. In this view, a positive mood signals that all needs are sufficiently met. ‘Needs’ in this theory should not be equated with the ‘wants’ of cognitive theories. Needs are inborn and universal while ‘wants’ are learned and can be variable across cultures. Our wants can concur more or less with our needs, but they can also contradict our needs, for example, a celibate priest chooses not to have sex (want) disputed the innate human urge to have sex (need).

Motivation to act

In this view negative and positive moods function as red and green lights on the human machine, indicating either that there is something wrong or that all systems are functioning properly. If so, this is likely to have behavioral consequences, negative mood urging to caution and a positive mood encouraging going on. I come back on that point.in section 5 of this paper.

Figure 4: Theories of happiness



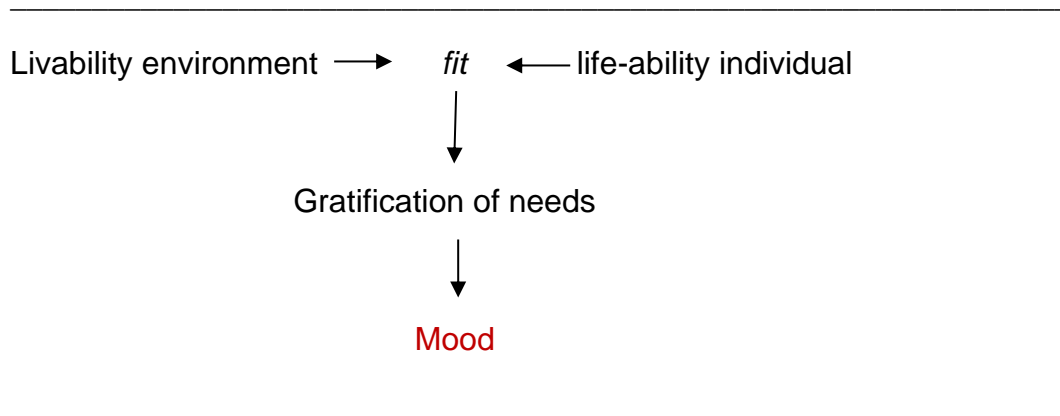
Source: Veenhoven (2009)

This functional view on affective experience is presented below in Figure 4 in the wider context of two competing theories of happiness. The figure shows both the difference between the two theories and highlights the relative importance of daily mood in the overall evaluation of life. For more detail see: Veenhoven (1991, 2009 and Kainulainen et. al (2017).

5.2 Conducive conditions

How well one feels most of the time depends on many factors, which can be ordered using the conceptual scheme of figure 1. The outcome of satisfaction in the right bottom quadrant of Figure 1 depends on the chances for a good life depicted in the two top quadrants of Figure 1. Need-gratification, and hence mood, depends on both the *livability* of the environment and on the *life-ability* of the individual. Not all life-abilities will make you feel better, only abilities that *fit* environmental challenges. This view on conditions for daily happiness is depicted in Figure 5 and is similar to how biologists look at the survival of organisms.

Figure 5: **Need theory of mood**



5.2.1 Livability factors

Living conditions differ *across* nations as well as *within* nations and correlations with mood have been observed at both levels, see Table 1.

Quality of society

In the left column of table 1 are some of the societal characteristics that have surfaced in cross-national happiness research, typically they have been found using indicators of 'overall happiness' such as a single question about life-satisfaction. The next two columns in Table 1 contain correlations with the two components of happiness, as distinguished above in section 1.3. Average mood in nations is measured using the degree to which positive affects dominated over negative affect the day before (as described above in section 3) and contentment is measured using a 'Cantril ladder' on which respondents rate their life between the best possible and

the worst possible. The data for both these measures were taken from the Gallup World Polls 2010-2015.

The average mood in nations relates to the same factors as contentment, but the size of the correlations is much smaller and the percentage of explained variance about half. One of the reasons for this is that mood is fairly high in most African countries in spite of poor performance on the societal characteristics at hand here. A possible interpretation is that the conditions in African societies still allow for a fair degree of need-gratification, which may be due to livability factors not considered in this analysis, such as social connections. In this view the stronger correlation with contentment could be due to comparisons made with Western standards of the good life, which are likely to have become more salient in Africa in the process of globalization.

Much of the societal characteristics tabulated in table 1 in are part of the 'modernity' syndrome. The more modern their country, the better people feel during the day. Though the correlation is smaller than with cognitive evaluations of life, it is still positive and sizable. This finding will be a surprise for prophets of doom, who associate modernity with anomie and alienation. Though modernization may involve problems, its benefits are clearly greater (Veenhoven & Berg 2013). Following the theories of happiness discussed in section 5.1 the observed correlation with average mood means that the most modern societies do better in meeting human needs than the less modern societies of this time do. In this view the greater happiness found in modern nations is not just a matter of these nations meeting self-imposed standard of a good life, it also denotes a good fit with human nature.

Social position in society

Numerous studies all over the world have considered differences in individual happiness within countries and a part of these studies have measured the affective component of happiness. Some of the results are presented below. End-notes direct to the relevant sections in the World Database of Happiness, where the reader can find the full details of the research findings presented here.

Social rank Most of these studies are inspired by egalitarian social policy and because of this, the emphasis is often on social differences, such as in income¹, education² and employment³. Contrary to expectation, these positional differences bear little relationship to happiness, at least not in a modern affluent society. Together positional variables explain mostly at most 10% of the variance for overall happiness and even less for daily mood. The case of unemployment is an example: though the unemployed are less satisfied with their lives than otherwise comparable people are, they feel about equally well as employed people do. (Knabe et. al 2010).

Intimate ties Embeddedness in intimate networks goes hand-in-hand with good mood. This appears in positive correlations with marital status⁴ and friendships⁵. Follow-up studies have shown a rise in daily mood following embarking on the marriage boat⁶. With such intimate ties, the quality of these is strongly correlated with daily mood and a bad marriage depresses mood more than no marriage. As a

result, some studies show a slight elevation of mood after divorce⁷. Unlike marriage, parenthood does not go with greater daily happiness⁸, one of the reasons for this is probably that children reduce marriage satisfaction.

Social participation Involvement in society is more closely related to mood level than social rank. Positive correlations have been found between mood level and participation in voluntary associations⁹. In this case the correlation observed with measures of daily mood is often stronger than it is with cognitive evaluations of life. A follow-up study revealed a causal effect of engagement in voluntary work on subsequent change in mood level¹⁰

5.2.2 Life ability factors

Studies in western nations show typically stronger links between daily mood and personal characteristics, than with aspects of livability of the environment. Since living conditions (upper left quadrant in Figure 1) is typically good in modern societies, the difference in happiness is more in how well one deals with these conditions (upper right quadrant in Figure 1). The following life-abilities appear to be correlated with daily mood.

Health

Not surprisingly good physical health¹¹ tends to go together with good mood. What may surprise more is that the causal effect does not run just from health to mood, but also the other way around and even more strongly so, as we will see in the next section. Another noteworthy thing is that mental health¹² correlates much stronger with daily mood than physical health does. One of the reasons is that a bad mood is part of many mental diseases and one of the drivers of malfunctioning.

IQ

Surprisingly, there is no relation between good mood and intelligence¹³. Smart people do not feel any better than the less smart^{14 15}. I have discussed this pattern elsewhere (Veenhoven & Choi 2012). This fits the finding that highly educated people hardly feel better than their lower educated compatriots; though average mood is higher in nations where the average level of education is high (cf. table 1), highly educated individuals do not stand out on daily happiness.

Social competence

Social and emotional skills appear to matter more for daily happiness than school-intelligence, as appears in strong correlations found for empathy¹⁶, assertiveness and sociability. There is an obvious link with the above-mentioned relation of mood with social participation and intimate ties.

Personality

Empirical studies have observed strong correlations between mood level and several

personality traits¹⁷. In some cases, this is not surprising, since mood is part of several personality traits, such as ‘anxiousness’ or ‘agreeableness’. Yet research has also revealed links with personality traits in which good or bad mood is not implied, such as conscientiousness¹⁸, extraversion¹⁹ and independence²⁰. Likewise, several aspects of personality organization appeared to go together with better mood, such as personality-integration²¹.

Much of these findings on individual characteristics that go together with good mood boil down to a difference in *ability to control one’s environment* and this pattern seems to be universal.

Table 1: **Mood and society**²² in 146 nations around 2015

<i>Characteristics of society</i>	<i>correlation with components of happiness</i>		<i>N (countries)</i>
	<i>average mood level</i>	<i>average contentment</i>	
Affluence	+0.33	+0.67	147
Rule of law			
Civil rights	+0.26	+0.49	144
Corruption	-0.40	-0.70	143
Freedom			
Economical	+0.25	+0.60	138
Political	+0.24	+0.50	144
Equality			
Income inequality	-0.15	-0.15	124
Gender inequality	-0.40	-0.59	140
Pluriformity			
% Migrants	+0.13	+0.38	143
Tolerance of minorities	+0.23	+0.57	72
Modernity			
Schooling	+0.20	+0.59	141
Urbanization	+0.21	+0.70	143
Explained variance (Adjusted R ²)	34%	74%	

5 CONSEQUENCES OF GOOD MOOD

Most of the research discussed above on determinants of mood level draws on correlational findings, which are typically interpreted as evidence for a causal effect *on* mood level. Yet statistical relations can also reflect effects *of* mood level on the correlated factor. Such effects can be made visible using longitudinal studies and sometime using experiments, either natural experiments in which mood in some people was affected and not in others, or in laboratory experiments in which mood of the moment is manipulated.

An example may illustrate this point: Cross-sectional studies show a strong correlation between mood-level and generosity. One interpretation of this finding is that generous behavior pays in the long-run, among other things because it generates social capital (e.g. Dunn et al. 2014). The other interpretation is that good mood foster generous behavior. That latter interpretation is supported by longitudinal evidence; people who gave their Christmas gratification to charity came to feel a bit happier, and happier than colleagues who had kept the money for their selves (Dunn et al. 2008). Experimental studies in which subjects have been caused to have a good or bad mood, have shown a similar effect on helping behavior (e.g. Carlson 1998).

Much of the research in this field has been summarized by Lyubomirsky et al (2005). They found mostly positive effects or positive mood. Below are the main benefits:

Observed benefits of frequent positive affect

- Activity
- Creativity, problem solving
- Sociability
- Pro-social behavior
- Physical health, longevity

The case of physical health is illustrative, both for the pervasive effect of mood and for the variety of causal paths involved. Evidence for a causal effect of good mood on physical health is rich; several long-term follow-up studies have shown that happy people live longer, irrespective of their baseline health. The size of the effect of enjoying life or not, is comparable to the effect of smoking or not on longevity (Veenhoven 2008). In an experimental study, Cohen et al. (2003) found that students who had been made feel bad became more vulnerable for infection with a common cold. This latter study illustrates one of the causal mechanisms in the relation between happiness and health, negative affect activates the fight-flight modus, which involves economizing on several functions, among which the immune system. Other causal effects of bad mood are, more risk behavior, such smoking and drinking.

When ill, unhappy people tend to be more careless with medication and this is related to still another causal mechanism, less social support. Conversely, good mood stimulates activity, which keep mind and body in shape. Several studies on the effect of subjective well-being on mortality note that affective experience is the driver, rather than cognitive evaluations of life (e.g. Wiest et al 20110).

All this means that happy workers are typically more productive, in particular in jobs that require sociability and problem solving (e.g. White at al 2004).

All this fits well in Fredrickson's (2004) 'Broaden-and-Build' theory. This theory holds that positive affective experience expands one's perceptual and behavioral scope, as it makes us more aware of our environment (rather than focused on one's own misery) and at the same time enhances active involvement (*broaden*). As a result, we develop better relations and achieve more at work (*build*).

The Broaden and Build Theory fits well with the functional perspective of affects, discussed above in the section on the basic mental process that governs how well one feels. If affects are signal mechanisms and mood reflect the degree to which our innate needs are being met, it is no surprise that we function better when we feel good. Feeling good means intuitively that we are on the right track and as such stimulates us to go on, while feeling bad signals that there is something wrong and this requires cautious restraint and determining what is wrong to see if we can rectify the matter.

6 CONCLUSIONS

Daily happiness can be measured in several ways. The most common way is to use self-reports, such as self-estimates of one's average mood level. Daily happiness can also be inferred from behavioral observation, such as facial expression. Research using such measures has resulted in a considerable body of knowledge.

Research on the prevalence of daily happiness shows large differences across nations, and the inhabitants of modern nations feel the best. The data do not support pessimistic theories about decline of happiness in the West. Daily happiness also differs within modern nations, such as across age categories and personality types. Daily happiness depends both on nature and nurture factors, many of which overlap with determinants of physical health. Most of these findings can be framed in the theory that daily happiness reflects need-gratification.

A more recent strand of research has revealed several consequences of daily happiness, such as activation, facilitation of social interaction and protection of physical health. These effects can also be understood from a functional perspective.

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NOTES

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 - ⁹ http://worlddatabaseofhappiness.eur.nl/hap_cor/desc_topic.php?tid=4818
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²² Variables used in the cross-national analysis reported on table 1 are:

Nation characteristics: Affluence: 2013 GDP ppp (standard 2011), Political Freedom: 2014 Suppression of political rights, Civil rights: 2013 Oppression of civil Liberties (Freedom House), Corruption: 2012 Control of Corruption, World bank, Income inequality: 05-2015 Inequality in income Gini (HDI 2015), Gender equality: 2010 ISD index of gender equality, % Migrants: 2015 Immigrants as percentage of the population UN, Tolerance: 2005 Tolerance - WVS 5 SUM a124_01 to a124_61
Happiness components: HappinessYesterdayABS_2014, HappinessBW11_2014
A full description of these measures is available at
http://worlddatabaseofhappiness.eur.nl/statnat/statnat_fp.htm