HAPPINESS:
Also known as 'life-satisfaction' and 'subjective well-being'

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In: Kenneth C. Land, Alex C. Michalos, and M. Joseph Sirgy (Eds.) Handbook of Social Indicators and Quality of Life Research. 2012 Dordrecht, Netherlands: Springer Publishers. page 63-77. DOI 10.1007/978-94-007-2421-1_3.

Happiness is a main goal, most individuals reach out for a happy life and many policy makers aim at greater happiness for a greater number. This pursuit of happiness calls for understanding of conditions for happiness and for that reason the subject has received much attention in the history of western thought. The study of happiness has long been a playground for philosophical speculation. By lack of empirical measures of happiness, it was not possible to check propositions about the matter. Hence, understanding of happiness remained speculative and uncertain. During the last decades, survey-research methods introduced by the social sciences have brought a break-through. Dependable measures of happiness have developed, by means of which a significant body of knowledge has evolved. This chapter presents an account of this field.

The literature on happiness can be framed within some key-questions that can be ordered as steps in the process for creating greater happiness for a greater number. 1) What is happiness precisely? 2) Can happiness be measured? 3) How happy are people presently? 4) What causes us to be happy or unhappy? 5) Can happiness be raised lastingly?

1. WHAT IS 'HAPPINESS'?

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 'wellbeing' 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. It further suggests that all merits can be integrated in one final scale of worth, which 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.

1.1 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. A second difference is between outer and inner qualities of life, in other words between 'external' and 'internal'

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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 table 1.

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.

In the sociological view, society is central. Livability is associated with the quality of society as a whole and also with the position one has in society.

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'. Next to absence of disease, one can consider excellence of function. This is referred to as 'positive health' and associated with energy and resilience. 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. 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 contribute 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. 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. 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 (1863) 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 wellbeing', '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.

1.2 Four kinds of satisfaction

Even when we focus on subjective satisfaction with 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 table 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 (1999:4) 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 in this chapter the term happiness is used in the broader sense of 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.

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. 1991).

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 and is then synonymous with 'life-satisfaction'. This is the meaning the utilitarian philosophers had in mind when talking about happiness as the 'sum' of pleasures and pains. In such contexts they denoted a balance over time and thus a durable matter.

1.3 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. This definition is explained in more detail in Veenhoven (1984:22-25).

1.4 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 (Veenhoven 2009). 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 ones 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 overall happiness. A synonym for overall happiness is 'life-satisfaction'.

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. Each of these moods is characterized by a special mixture of affective experience, one of which is 'hedonic tone' or 'pleasantness'. 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.

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.

1.5 Synonyms

The above defined concept of 'overall happiness' is denoted with different words. In the 1950s the words *adjustment* and *morale* were sometimes used in this meaning and since the 1960s the term *life-satisfaction* came into use for this purpose. In 1984 Ed Diener introduced the term *subjective well-being* [1], abbreviated as SWB, and this term is still dominant in psychology.

The term life-satisfaction is mostly used for 'overall happiness', but refers in some cases particularly to its cognitive component and is than synonymous with 'contentment'. In such context, the term happiness is typically used for the affective appraisal of life and then synonymous with 'hedonic level of affect'.

The term subjective well-being is also used in wider meanings than happiness as defined here. Sometimes the term refers to good mental functioning and then denotes the meaning of life-ability in the top right quadrant of scheme 1. At other occasions the term is used as a generic for all subjective enjoyment and then covers all the quadrants of scheme 2.

2. CAN HAPPINESS BE MEASURED?

Measurement has long been understood as `objective' and `external' assessment, analogous to the measurement of blood-pressure by a doctor. By now we know that happiness cannot be measured that way. Steady physiological correlates have not been discovered, and probably never will be. Nor have any overt behaviors been found to be consistently linked to inner enjoyment of life. Like most attitudinal phenomena, happiness is only partially reflected in behavior. Suicidal behavior is probably more indicative of happiness. Almost all people who attempt or commit suicide are quite unhappy. However, not all the unhappy seek resort to suicide. In fact, only a fraction does.

Inference from overt behavior being impossible, we must make do with questioning. That is, simply asking people how much they enjoy their life-as-a-whole. Questioning is an appropriate method of measurement in this case since happiness is defined as something we have on our mind.

Questions on happiness can be posed in various contexts; clinical interviews, life-review questionnaires and common survey interviews. The questions can be posed in different ways; directly or indirectly, and by means of single or multiple items.

2.1 Common questions

Some common questions are presented in Table 3.

2.2 Validity doubts

Critics have suggested that responses to questions on happiness actually measure other phenomena. Rather than indicating how much the respondent enjoys life, answers would reflect his normative notions and desires.

No notion

One of the misgivings is that most people have no opinion at all about their happiness. They would be more aware of how happy they are supposed to be, and report that instead. Though this may happen incidentally, it does not appear to be the rule. Most people know quite well whether or not they enjoy life. Eight out of ten Americans think

[1] Ed Diener defines subjective well-being as being satisfied with one's life, while feeling good and this conceptualization also involves both cognitive and affective appraisals of life.

of it every week. Responses on questions about happiness tend to be prompt. Non-response on these items is low; both absolutely (± 1%) and relatively to other attitudinal questions. `Don't know' responses are infrequent as well.

A related assertion is that respondents mix up how happy they actually are, with how happy other people think they are, given their situation. If so, people considered to be well off would typically report to be very happy, and people regarded as disadvantaged should characterize themselves as unhappy. That pattern is observed sometimes, but it is not general. For instance, in The Netherlands good education is seen as a pre-requisite for a good life, but the highly educated appear slightly less happy in comparison to their less educated counterparts.

Colored answers

Another objection concerns the presence of systematic bias in responses. It is assumed that questions on happiness are interpreted correctly, but that responses are often false. People who are actually dissatisfied with their life would tend to answer that they are quite happy. Both ego-defense and social-desirability would cause such distortions.

This bias is seen to manifest itself in over-report of happiness; most people claim to be happy, and most perceive themselves as happier than average. Another indication of bias is seen in the finding that psycho-somatic complaints are not uncommon among the happy. However, these findings allow other interpretations as well. Firstly, the fact that more people say to be happy than unhappy does not imply over-report of happiness. It is quite possible that most people are truly happy (some reasons will be discussed below). Secondly, there are also good reasons why most people think that they are happier than average. One such reason is that most people are like critical scientists and think that unhappiness is the rule. Thirdly, the occurrence of head-aches and worries among the happy does not prove response distortion. Life can be a sore trial some times, but still be satisfying on a balance.

The proof of the pudding is in demonstrating the response distortion itself. Some clinical studies have tried to do so by comparing responses to single direct questions with ratings based on depth interviews and projective tests. The results are generally not different from responses to single direct questions posed by an anonymous interviewer.

2.3 Reliability doubts

Though single questions on happiness seem to measure what they are supposed to measure, they measure it rather imprecisely.

When the same question is asked twice in an interview, responses are not always identical. Correlations are about +.70. Over a period of a week, test-retest reliability drops to circa +.60. Though responses seldom change from `happy' to `unhappy', switches from `very' to `fairly' are rather common. The difference between response-options is often ambiguous. The respondent's notion about his/her happiness tends to be global. Thus the choice for one answer-category or the next is sometimes haphazard.

Because choice is often arbitrary, subtle differences in interrogation can exert considerable effect. Variations in place where the interview is held, characteristics of the interviewer, sequence of questions and precise wording of the key-item can tip the scale to one response or the other. Such effects can occur in different phases of the response process; in the consideration of the answer as well as in the communication of it.

Bias in appraisal
Though most people have an idea of how much they enjoy life, responding to questions on this matter involves more than just bringing up an earlier judgment from memory. For the most part, memory only indicates a range of happiness. Typically, the matter is re-assessed in an instant judgment. This re-appraisal may be limited to recent change (are there any reasons to be more or less happy than I used to be?), but it can also involve quick re-evaluation of life (what are my blessings and frustrations?). In making such instant judgments, people use various heuristics. These mental simplifications are attended with specific errors. For instance the `availability' heuristic involves orientation on pieces of information that happen to be readily available. If the interviewer is in a wheelchair, the benefit of good health is salient. Respondents in good health will then rate their happiness somewhat higher and the correlation of happiness-ratings with health variables will be more pronounced. Several of these heuristic effects have been demonstrated by Schwarz and Strack (1991).

Bias in response
Once a respondent has formed a private judgment, the next step is to communicate it. At this stage reports can be biased in various ways as well. One source of bias is inherent to semantics; respondents interpret words differently and some interpretations may be emphasized by earlier questions. For example, questions on happiness are more likely to be interpreted as referring to `contentment' when preceded by questions on success in work, rather than items on mood. Another source of response-bias is found in considerations of self-presentation and social-desirability. Self-rating of happiness tends to be slightly higher in personal interviews than on anonymous questionnaires. However, direct contact with an interviewer does not always inflate happiness reports. If the interviewer is in a wheel-chair, modest self-presentation is encouraged.

Much of these biases are random, and balance out in large samples. So in large samples, random error does not affect the accuracy of happiness averages. Yet it does affect correlations, random error 'attenuates' correlations. Random error can be estimated by means of multiple-trait-multiple-method (MTMM) studies, and correlations can be corrected (disattenuated) on that basis. A first application on satisfaction measures is reported by Saris et. al. (1996).

Some biases may be systematic; especially bias produced by technique of interrogation and sequence of questions. Bias of that kind does affect the reliability of distributional data. In principle it does not affect correlations, unless the measure of the correlate is biased in the same way (correlated error). To some extend, systematic error can also be estimated and corrected. See also Saris et al. (1996).

2.4 Comparability across nations

Average happiness differs markedly across nations. In scheme 4 we will see that Russians score currently 5.4 on a 0-10 scale, while in Canada the average is 7.7. Does that mean that Russians really take less pleasure in life? Several claims to the contrary have been advanced. Elsewhere I have checked these doubts (Ouweneel & Veenhoven (1991), Veenhoven (1993). The results of that inquiry are summarized below.

The first objection is that differences in *language* hinder comparison. Words like `happiness' and `satisfaction' would not have the same connotations in different tongues. Questions using such terms would therefore measure slightly different matters. I checked that hypothesis by comparing the rank orders produced by three kinds of questions on life-satisfaction: a question about `happiness', a question about

`satisfaction with life' and a question that invites to a rating between `best- and worst possible life'. The rank orders appeared to be almost identical. I also compared responses on questions on happiness and satisfaction in two bi-lingual countries, and found no evidence for linguistic bias either.

A second objection is that responses are differentially distorted by *desirability-bias*. In countries where happiness ranks high in value, people would be more inclined to overstate their enjoyment of life. I inspected that claim by checking whether reported happiness is indeed higher in countries where hedonic values are most endorsed. This appeared not to be the case. As a second check, I inspected whether reports of general happiness deviate more from feelings in the past few weeks in these countries; the former measure being more vulnerable for desirability distortion than the latter. This appeared not to be the case either.

A third claim is that *response-styles* distort the answers dissimilarly in different countries. For instance, collectivistic orientation would discourage `very' happy responses, because modest self-presentation is more appropriate within that cultural context. I tested this hypothesis by comparing happiness in countries differing in value-collectivism, but found no effect in the predicted direction. The hypothesis failed several other tests as well.

A related claim is that happiness is a typical *western concept*. Unfamiliarity with it in non-western nations would lead to lower scores. If so, we can expect more `don't know' and `no answer' responses in non-western nations. However, that appeared not to be the case.

The issue of `cultural bias in the measurement' of happiness must be distinguished from the question of `cultural influence on the appraisal' of life. Russians can be truly less happy than Canadians, but be so because of a gloomier outlook-on-life, rather than as a result of an inferior quality-of-life. This latter matter will be discussed in section 4 of this chapter.

3. HOW HAPPY ARE WE?

Throughout time, social critics have bemoaned the miseries of life. Man is said to be unhappy, and real happiness is projected in past paradise or future utopia. Optimists, who stressed human adaptability and social progress, have always denounced such bilious claims. By lack of an empirical gauge, the discussion remained inconclusive. During the last few decades many surveys have been carried out, some drawing on world samples (available in the World Database of Happiness). Together, the data support the optimist view.

Most people are happy

Figure 1 presents the distribution for responses to the 10-step question on life-satisfaction in the USA. The most frequent responses are 7, 8 and 9 and less than 2 % scores below neutral. The average is 7,4. This result implies that most people must feel happy most of the time. That view has been corroborated by yearly follow-up studies over many years (Ehrhardt et al 2000) and by studies that use the technique of experience sampling (Schimmack, U. & Diener, E. 2003).

The high level of happiness is not unique to the USA. Table 4 shows similar averages in

other western nations. In fact, average happiness tends to be above neutral in most countries of the world. So happiness for a great number is apparently possible.

No mere resignation

Nevertheless, some social critics are still reluctant to believe that modern man is happy. Reported happiness is discounted as sullen adjustment. Rather than really enjoying their life, people would just give up hope for a better one and try to adjust to the inevitable (e.g. Ipsen 1978). Various defensive strategies would be used: simple denial of one's misery, downward comparison and a tendency to see things rosier than they actually are. Depressives would see the world more realistic. In addition to the above discussion on validity, two counter-arguments can be mentioned:

Firstly, such resignation must give itself away in a discrepancy between the `adjusted' judgment of life and `raw' affective experience. Appraisal of affect is probably less vulnerable to cognitive adaptation, because it is a direct experience and thus less open to defensive distortion. It is also less threatening to admit that one felt depressed in the last few weeks than to admit disappointment in life. Various surveys have assessed both general happiness and last week's affect-balance. The results do not suggest that people claim to be happy but actually feel lousy (research reviewed in Veenhoven 1984: 106/113). Time sampling of mood-states also shows that pleasant affect dominates unpleasant affect (see e.g. Bless & Schwarz 1984 for a meta-analysis of 18 studies).

Secondly, people are typically unhappy when they live in miserable conditions. As we have seen, unhappiness is the rule in poor third world countries. In western nations happiness is typically lower where adverse conditions accumulate, such as in persons who are poor, lonely and ill (Glatzer & Zapf 1984:282-397).

Together these findings suggest that people tend to enjoy their lives once conditions are tolerable. From an adaptive-biological point of view, this does not seem strange. Nature is unlikely to have burdened us with chronic unhappiness. Like `health', happiness would seem to be the normal condition.

Why still so many complaints?

The prevalence of happiness does not wash away the multitude of suffering and complaining. Even the happy are not without complaints. The German Welfare Survey found that half of the subjects who say to be satisfied with their life-as-a-whole report frequent worries (Glatzer & Zapf 1984:180). If not due to response distortion, what else can explain this pattern of worried happiness?

Firstly, it is important to note that happiness and complaining do not exclude each other logically. One can be satisfied with life-as-a-whole, but still be aware of serious deficits. In fact, both stem from a reflection on life. Secondly, worrying may contribute to happiness in the end. Only through realistic acknowledgement of danger can we cope effectively with the problems of life.

4. WHAT CAUSES US TO BE MORE OF LESS HAPPY?

Having established *that* people differ in happiness, the next question is *why*. So far, the determinants of happiness are only dimly understood. Still, it is clear that various levels of human functioning are involved; collective action and individual behavior, simple sensory experiences and higher cognition, stable characteristics of the individual and his

environment as well as freaks of fate. Table 5 presents a tentative ordering of factors and processes in a sequence-model.

The model presumes that the judgment of life draws on the *flow of life-experiences*, particularly on positive and negative experience. This is what the utilitarian philosophers referred to as "pleasures and pains". The flow of experiences is a mental reaction to the *course of life-events*. This includes major one-time events, such as marriage or migrations, as well as repetitious mundane events, like getting up in the morning and doing the dishes. The events that happen in life are partly a matter of good or bad luck, such as in the case of accidents. The occurrences of life-events also depend on given conditions and capacities. Traffic accidents are less frequent in well-organized societies and among attentive persons. Thus, the chances of `rewarding' and `aversive' events are not the same for everybody. This is commonly referred to as *life-chances*. Present life-chances root in past events and chance-structures, in societal history as well as individual development.

An example may illustrate this four-step model: A person's life-chances may be poor, because he/she lives in a lawless society, is in a powerless position in that society, and is personally neither smart nor nice (step 1). That person will run into many adverse events. He/she will be robbed, duped, humiliated and excluded (step 2). Therefore that person will frequently feel anxious, angry and lonely (step 3). Based on this flow of experience that person will judge life-as-a-whole negatively (step 4). Causality can skip a step. For instance, poor legal protection (step 1) may instigate feelings of anxiety (step 3) directly, because the person anticipates on events that are likely to happen, but have not occurred. Life-chances (step 1) can even enter the evaluation of life (step 4) right away, when comparisons enter the judgment. Likewise, not all life-events in step 2 follow from life-chances at step 1. Some events are a matter of good or bad luck and happen irrespective of social position or psychological capabilities. Nor is the flow of life-experiences (step 3) entirely shaped by the course of events (step 2). How pleasant or unpleasant we feel also depends on dispositions and interpretations.

4.1 Livability of the environment

Research on happiness has focused on its relation to life-chances. Below is a review of the main findings up to 2010.

Quality of society

Average happiness differs greatly across nations. We have seen earlier that differences cannot be explained by cultural bias in the measurement of happiness. We will see later that they can neither be attributed to cultural variation in outlook on life. On the other hand, there is a strong basis for interpretation of this variation in terms of differential livability of society. Scheme 6 presents many strong correlations between average happiness and societal qualities.

Much of the above mentioned correlates of average happiness are part of the 'modernity' syndrome. Hence, similar patterns emerge if we consider further indicators of modernity, such as urbanization, industrialization, Informatisation and individualization. The more modern the country, the happier its citizens are. This finding will be a surprise to prophets of doom, who associate modernity with anomie and alienation. Though modernization may involve problems indeed, its benefits are clearly greater (Veenhoven 2005).

Individual position in society
Numerous studies all over the world have considered differences in individual happiness within countries. Because most of these studies are inspired by egalitarian social policy, the emphasis is often on social differences, such as in income, education and employment. Contrary to expectation these positional differences bear little relationship to happiness, at least not in modern affluent society. Together positional variables explain mostly no more than 10% of the variance in happiness. The main findings are summarized in table 7.

4.2 Life-ability of the individual

The strongest correlations observed are at the psychological level; happy people are typically better endowed than the unhappy. The common variance explained by such variables tends to be around 30%. Some main findings are summarized in table 8. Much of the findings on individual variation in happiness boil down to a difference in *ability to control ones environment* and this pattern seems to be universal.

4.3 Course of life-events

The effect of life-events on happiness has received little attention. One of the few sophisticated studies that considered the matter is the four-wave `Australian Quality of Life Panel Study' by Heady & Wearing (1992).

First, this study showed that the course of life-events is not the same for everybody. Some people find troubles repeatedly; they have accidents, are laid off, quarrel with family, fall ill, etc. On the other hand there are also people who are lucky most of the time; they meet nice people, get promoted, have children who do well, etc. These systematic differences in the course of events depend to some extent on life-chances. In the study, favorable events appeared to happen more often to persons who were well educated and psychologically extraverted. Adverse events were more frequent among neurotics, but occurred less to people with good intimate attachments. Both favorable and unfavorable events happened more to persons who were young and psychologically open. Together, the life-chances considered explained about 35% of the variation in life-events over eight years.

The study also demonstrated that the course of life-events affects the appraisal of life. First, it was found that the balance of favorable and adverse events in one year predicts reported happiness in the next year. The more positive that balance, the greater the satisfaction with life. Life-events explained some 25% of the differences in life-satisfaction, of which about 10% were independent of social position and personality. Next, longitudinal analysis indicated that change in characteristic pattern of events was followed by change in happiness. Respondents who shifted to a more positive balance became happier.

4.4 Flow of experience

As of yet, hedonic experience is not well understood. Though the feelings of disgust and delight are quite tangible, it is not clear how they come about and why.

Function of hedonic experience
Much of our likes and dislikes seem to be inborn reactions to situations that are good and bad for human survival. Evolution has probably eliminated our forefathers who did

not enjoy food, shelter and company, or lacked dislikes for danger. As such, certain life-events are likely to elicit pleasant experiences while others invoke unpleasant feelings. Playing tennis with friends is typically more fun than sitting in jail alone.
Though it is quite plausible that hedonic experience reflects the gratification of basic needs, it is not so clear what these needs are precisely. Current theory suggests that there are various `organic needs' (food, shelter, sex), `social needs' (belonging, esteem) and broader `self-actualizing' needs (mastery, control, variety, meaning, etc). Conceptions differ however, and it is difficult to establish to what extent these strivings are inborn and how they are linked to hedonic experience.

Cognitive theories suggest that pleasant experience can also be induced by perceived realization of goals. For instance, that we enjoy playing tennis because we successfully execute an intention and dislike the jail because it does not fit our plans. The gratifying effects of perceived reality-want fits may draw on an underlying need for control.

Pleasant and unpleasant events
Many adverse events evoke similar reactions in most people, particularly events that exceed human adaptability. Everybody suffers when burned or starved. However, within the limits of human faculties, reactions tend to differ. For instance, not everybody feels equally as bad when his/her house burns down. Reactions vary with earlier exposure to hardship, with meaning attributed to the event and with psychological resilience. Still most people get more or less upset by the loss of their property. Variability is probably greater in the pleasurable experiences people derive from life-events. Though most of us enjoy feasts, this is not true for everybody. Some people lack the social skills required for feasting, are not accepted by the participants, or are have a limited capacity for enjoyment anyway.

The various personal characteristics that mold experiential reactions on life-events belong to the same class of `life-chances' that also influence the course of events. Low social status may result both in few invitations for feasts and in uneasy feelings at the occasional celebrations one attends. Still, the life-events evoke experience and not the life chances. Effects of daily events on daily experiences have been studied by means of time sampling. In this method, respondents note several times during the day how well they feel at that moment and what they are doing. Based on such studies Csikszentmihalyi (1991) found that we tend to feel better in company than we do alone and finer in leisure activities than we do at work. Structured leisure-activities such as sporting appeared more rewarding than unstructured pastimes, such as television viewing. This pattern is probably universal. Personality explains about 30% of the variance in pleasant affect; situations explain another 10% and person-situation interaction 20%.

Inner manufacturing of feeling
Though it is clear *that* events evoke experiences, it is not so clear *how* such effects come about. In fact, little is known of how likes and dislikes are processed. We have some idea about the psychophysiology of sensations, but the inner fabrication of affective experience is hardly understood. Psychology has been more successful in grasping thinking than affect.

In the 1960's, the discovery of pleasure centers in the brain seemed to promise a break-through (Olds 1954, Rolls, 1979). That promise has become somewhat bleak by now. There is no such thing as a single happiness gland. Pleasurable experience seems

to result from different bio-chemical signals in both the body and the brain, the interactions of which are still largely unknown.

Capacity for enjoyment

Wherever situated, the human capacity for enjoyment is great. Reward areas in the brain seem to be greater than areas that produce unpleasant experience and most people tend to feel good most of the time (Bless & Schwarz 1984). Suffering may be more salient than satisfaction, but it is not more frequent.

There is some logic in this phenomenon. Why would nature doom us to be unhappy most of the time? If experiences of like and dislike serve to indicate conditions that are good and bad for the organism, we should expect that happiness is the rule. Evolution tends to produce a good fit of species to its environment, which will is reflected in predominance of pleasurable experiences. Dysphoric experience is to keep away from harmful situations; it instigates withdrawal. Therefore, unhappiness can be permanent only in adverse living conditions from which no escape is possible. In such conditions species tend to die out. In this view, chronic unhappiness can at best be a temporary phenomenon in the declining stage. However, the human species does not seem to be drawing to its end, and if we get extinct that will be due to ecological disaster rather than to mal-adaptation to our living environment.

The organic disposition to enjoy things may not be as strong in everybody. There can be temperamental differences in happiness-proneness. Twin-studies show greater resemblance in happiness between monozygotic twins than di-zygotic twins, even when reared apart. However, this does not mark happiness itself as a temperamental trait; the similarity in enjoyment of life can also result from other traits that are instrumental to happiness, such as heritable variation in `energy' or `resilience'. The results of a follow-up study from birth on do not suggest that there is a marked temperamental disposition to be happy or unhappy. Babies observed to be cheerful did not appear to be more likely to report high life-satisfaction in adulthood. (Research reviewed in Veenhoven 1994)

4.5 Inner process of evaluation

What goes on in people when they evaluate their life? Speculations on these matters were a main issue in antique philosophy of happiness. This issue enjoys a renewed interest nowadays. It is not just curiosity about the inside of the black box that draws the attention, but rather the far-reaching consequences of the different points of view for the possibilities of creating greater happiness (to be discussed in the next section).

Calculus or inference?

Utilitarian philosophers spoke of happiness as the "sum of pleasures and pains", established in a "mental calculus". This view on the evaluation process is still dominant nowadays. Happiness is seen to be assessed in a similar way as accountants calculate profit. We would count our blessings and blights and then strike a balance. The judgment is then a bottom-up process, in which appraisals of various aspects of life are combined into an overall judgment.

In this line, Andrews & Withey (1976) suggested that satisfaction with life-as-a-whole is calculated from satisfactions with life-domains. In this view, we first evaluate domains of life, such as our job and marriage, by means of comparing the reality of life with various standards of success, like `security' and `variation'. Next, we would compute an average, weighted by perceived importance of domains. Andrews & Withey

demonstrate high correlations between satisfaction with life-as-a-whole and life-domain appraisals, but found no evidence for the presumed weighing. Michalos' (1985) Multiple-Discrepancy-Theory also depicts happiness as the sum of various sub-evaluations. In his thinking, sub-evaluations are assessments of discrepancy between perceptions of how ones life 'is' with notions of how it 'should be'. The five main comparison standards are presented as: what one `wants', what one `had' earlier in life, what one `expected' to have, what one thinks `other people' have, and what one thinks is `deserved'. Michalos provides ample evidence that small discrepancies are accompanied by high satisfaction with life-as-a-whole. Multiple regression analysis showed that happiness is primarily a function of perceived discrepancy between reality and `wants'. Though enjoyment of life-as-a-whole is statistically correlated with appraisals of various aspects of life, it has not been established that happiness is causally determined by these sub-evaluations. The correlation can also be due to top-down effects. For instance, when assessing his job-satisfaction a person can reason "I am generally happy, so apparently I like my job". Panel-analysis has demonstrated strong effects of this kind. Actually, the effect of happiness on perception of have-want discrepancies is greater than the effect of gap-size on happiness (Heady et al 1991).

Inference on the basis of feeling

A rival theory is that evaluations of life draw on cues that provide indications of the quality of life-as-a-whole. An internal cue of this kind is how well one generally feels; if pleasant affect dominates, life cannot be too bad. An external cue is how happy other people think one is (reflected appraisal).

The available evidence suggests that internal affective cues are far more important than external social ones. Happiness is much more related to matters of mood than to reputation. In assessing how we generally feel, we seem to focus on the relative frequency of positive and negative affects, rather than on the remembered intensity of joy and suffering (Diener et al 1991). A typical heuristic seems to involve departing from the mood of the moment, which can be read quite vividly, and next considering how representative that mood is for general affective experience (Schwarz 1991) Schwarz & Strack (1991) showed that evaluations of life-as-a-whole draw on how one generally feels. This facilitates the judgmental task. Most people know well how they generally feel. The alternative of `calculating' happiness is more difficult and time consuming. It requires selection of standards, assessments of success and integration of the appraisals into an overall judgment. Not only does this involve more mental operations, but it also entails many arbitrary decisions. Still, people sometimes choose to follow this more difficult road. A condition that encourages calculative evaluation is uncertainty about one's typical mood. For instance, in depression it is hard to estimate how one generally feels. Another factor that invites to the calculative approach may be the availability of salient information for comparison, such as the earlier mentioned confrontation with a person in a wheelchair.

Evaluations of specific aspects of life can less well be derived from estimates of general affect. One can be satisfied with ones job, but still feel generally lousy, because of a bad marriage and poor health. On the other hand, calculating is less difficult when specific life-domains are concerned. The field is easier to oversee and the standards are usually more evident.

5. POSSIBILITY OF GREATER HAPPINESS

Much of the research on happiness is prompted by the hope of finding ways to create greater happiness for a greater number. However, several theories about happiness which imply that improvement of living conditions will not reduce discontent.
One such theory is that happiness is relative. Another is the theory that happiness is a trait. Both theories have been tested and have been rejected (Veenhoven 1995). Another comforting finding is that average happiness can be as high as 8 on a 0-10 scale. Remember Scheme 5 that shown an average of 8.2 in Denmark and 8.1 in Switzerland. What is possible in these countries should also be possible in other nations.

6. CONCLUSION

Happiness can be defined as subjective enjoyment of life-as-a-whole. Empirical studies on happiness show considerable difference; both difference in average happiness across countries and differences between citizens within countries. At its present stage, our understanding of happiness already shows that greater happiness for a greater number is possible in principle, and indicates some ways for achieving that goal.

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Table 1: Four qualities of life

	Outer qualities	*Inner qualities*
Life chances	**Livability of environment**	**Life-ability of the person**
Life results	**Utility of life**	**Satisfaction with life**

Table 2: Four kinds of satisfaction

	Passing	*Enduring*
Part of life	**Pleasure**	**Domain satisfaction**
Life as a whole	**Top experience**	**Happiness**

Table 3: Some currently used questions about happiness

Single questions

- Taking all together, how happy would you say you are: very happy, quite happy, not very happy, not at all happy?
  (standard item in the World Value Studies)

- How satisfied are you with the life you lead? Very satisfied, fairly satisfied, not very satisfied, not at all satisfied?
  (standard item in Euro-barometer surveys)

- Here is a picture of a ladder. Suppose the top of the ladder represents the best possible life for you and the bottom of the ladder the worst possible life. Where on the ladder do you feel you personally stand at the present time? (0-10 ladder like rating scale)
  (Cantril's (1965) present life ladder rating)

Multiple questions (summed)

- Same question asked twice: at the beginning and at the end of interview
  How do you feel about your life-as-a-whole? Delighted, pleased, mostly satisfying, mixed, mostly dissatisfying, unhappy, terrible?
  (Andrews & Withey's (1976) Life 3)

- Five questions, rated on a 1-7 scale ranging from strongly agree to strongly disagree.
  (Diener's 1985 Satisfaction With Life Scale SWLS [2])
  - In most ways my life is close to ideal.
  - The conditions of my life are excellent.
  - I am satisfied with my life.
  - So far I have gotten the important things I want in life.
  - If I could live my life over, I would change almost nothing

[2] In my view this last item is not appropriate. One can be quite satisfied with life, but still be open for the opportunity to try something else.

Table 4: Life-satisfaction in nations around 2005 Average scores on scale 0-10

• Denmark	8,3
• Switzerland	8,0
• Canada	7,6
• USA	7.4
• Israel	7,0
• Japan	6,5
• Korea (South)	6,0
• India	5,5
• Ukraine	5,0
• Afghanistan	4,1
• Zimbabwe	3,0
• Togo	2,6

Source: World Database of Happiness (Veenhoven 2010) Rank Report Average Happiness

Table 5: Evaluation of life: a sequence model of conditions and processes

LIFE-CHANCES →	COURSE OF EVENTS →	FLOW OF EXPERIENCE →	EVALUATION OF LIFE

Societal resources
• economic welfare
• social equality
• political freedom
• cultural lush
• moral order
• etc...
 	
Personal resources
• **social position**
  o material property
  o political influence
  o social prestige
  o family bonds
  o etc..
• **individual abilities**
  o physical fitness
  o psychic fortitude
  o social capability
  o intellectual skill
  o etc...
	Confrontation with:
	
	• deficit or affluence
	• attack or protection
	• solitude or company
	• humiliation or honor
	• routine or challenge
	• ugliness or beauty
	• etc...
		Experiences of:
		
		• yearning or satiation
		• anxiety or safety
		• loneliness or love
		• rejection or respect
		• dullness or excitement
		• repulsion or rapture
		• etc...
			Appraisal of average affect
			
			Comparison with standards of the good life
			
			Striking an overall balance of life

conditions for happiness		appraisal process	

Table 6: Happiness and characteristics of nations around 2005

Condition in nation	**Correlation with average happiness**		
	Zero-order	*Wealth controlled*	*N*
Wealth			
• Purchasing power per head*	+.67	-	137
Freedom			
• Economic*	+.57	+.36	128
• Political*	+.50	+.31	130
• Personal	+.40	-.03	85
Equality			
• Disparity in incomes	-.10	+.23	119
• Discrimination of women	-.79	-.62	99
• Disparity in happiness	-.52	-.16	97
Brotherhood			
• Tolerance	+.48	+.39	77
• Trust in people	+.14	-.38	50
• Voluntary work	-.09	+.17	74
• Social security	+.44	+.15	107
Justice			
• Rule of law*	+.64	+.30	146
• Respect of civil rights*	+.52	+.28	130
• Corruption*	-.65	-.32	146
Explained variance (R)	.70		122

Data: World Database of Happiness (Veenhoven 2010), States of Nations
* = included in regression

Table 7: Happiness and position in society

	Correlation correlation within western nations	*Similarity of correlation across all nations*
Social rank		
• Income	+	–
• Education	±	–
• Occupational prestige	+	+
Social participation		
• Employment	±	+
• Participation in associations	+	+
Primary network		
• Spouse	++	+
• Children	0	?
• Friends	+	+

	++ = Strong positive	+ = Similar correlations
+	= Positive	± = Varying
	0 = No relationship correlations	- = Different
-	= Negative	
?	= Not yet investigated	? = No data

Source: World Database of Happiness (Veenhoven 2010), Correlational Findings.

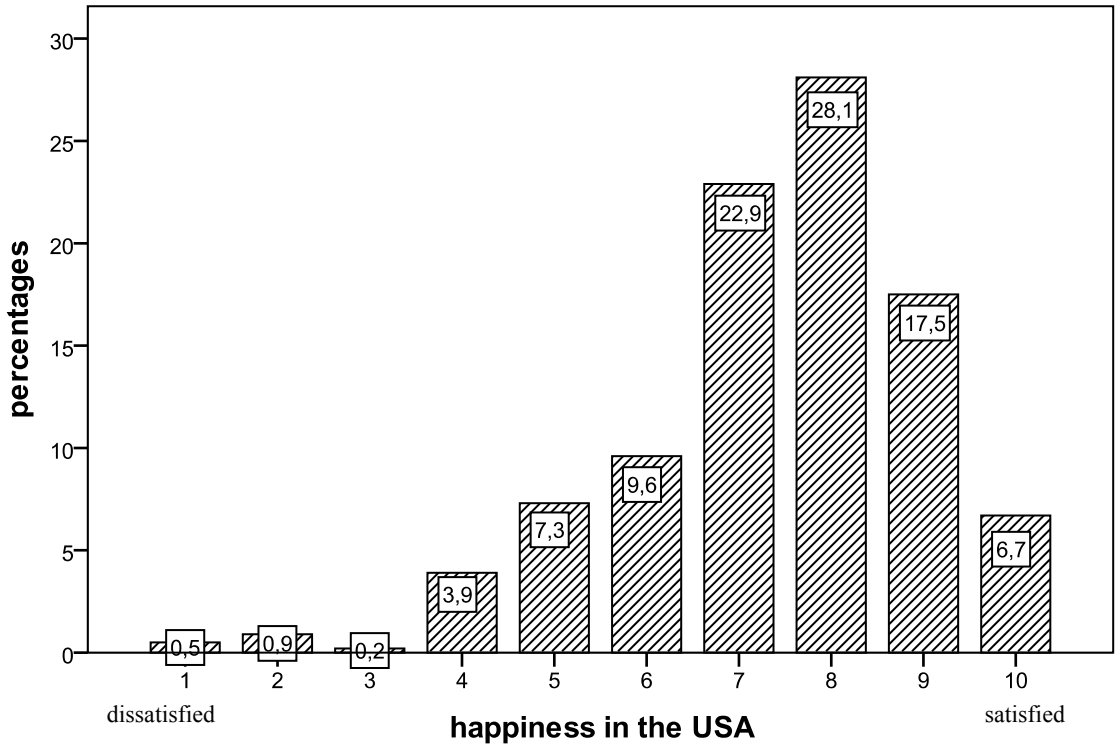
Table 8: Happiness and life-abilities

	Correlation <u>within</u> western nations	*Similarity of correlation <u>across</u> all nations*
Proficiencies		
• Physical health	+	+
• Mental health	++	+
• IQ	0	+
Personality		
• Internal control	+	+
• Extraversion	+	+
• Conscientiousness	+	?
Art of living		
• Lust acceptance	+	+
• Sociability	++	+

++	= Strong positive	+ = Similar correlations
+	= Positive	± = Varying
0	= No relationship correlations	- = Different
-	= Negative	
?	= Not yet investigated	? = No data

Source: World Database of Happiness (Veenhoven 2010), Correlational Findings.

Figure 1: Life-satisfaction in the USA 2007



Source: World Value Survey 5