A good society is first of all a livable society and the livability of a society manifests in the happiness of its members. Therefore improvement of society requires an understanding of happiness, in particular answers to the following questions: 1) What is happiness precisely? 2) How happy are people presently? 3) What causes us to be happy or unhappy? 4) Can happiness be raised lastingly? Through the ages philosophers have toiled with these questions. Since the 1960's they are subject of empirical research. This paper takes stock of the progress.

1 STUDY OF HAPPINESS

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 paper presents an account of this new field.

Development of the field

Efforts to create a better society started with attacking the most blatant evils: ignorance, illness and poverty. Consequently, progress was measured using such thing as literacy, control of epidemic disease and elimination of hunger. Social statistics were developed for the registration of the progress achievements.

Advances in the combat of these plagues were followed by efforts to ensure a reasonable material standard of living for everybody. Progress on this matter was mostly measured by gains in money-income, income-security and income equality. This gave rise to an abundance of social research on poverty and social-inequality, which is still a major research tradition nowadays.

In the 1960's, a new theme came on the research-agenda. At that time, most western nations had developed into affluent welfare states. Limits to economic growth were recognized and post-materialistic values gained field. This called for broader conceptions and measures of the good life. Consequently, new terms were introduced, such as 'quality-of-life' and 'wellbeing', and older terms such as 'happiness' revived. Initially these notions were polemic, and served to denote that there is more than just material welfare. Yet soon, they developed into more substantive concepts and became subject of empirical investigation.
Questions
The literature on happiness can be framed within some key-questions. These questions 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?

Below I will provide a definition of happiness, and thereby answer question 1. On that basis, I will take stock of the answers to some of the other questions and explore their implication.

2 CONCEPT OF HAPPINESS

In this paper happiness is defined as the subjective enjoyment of life. To distinguish that meaning from other denotations of the word, I will first delineate the concept from other qualities of life (§ 2.1) and next specify what kind of subjective enjoyment is meant (§ 2.2). On that basis, I will provide a definition (§ 2.3).

2.1 Happiness and other qualities of life
Any statement about quality of life involves a judgment. In order to sort the various qualities involved, we must establish what life is evaluated, by what standards.

Quality of what 'life'? The object of evaluation is mostly an individual life, the quality of life of a person. Yet, the term is also used for aggregates, for instance when we speak about the quality-of-life of women. In that case, the term refers usually to the average of individuals. Sometimes the term is used in reference to humanity as a whole. In this context, the object of evaluation is mostly the average individual, and the long-term destiny of the species. The evaluation then concerns 'human life', rather than 'human lives'.

The terms 'wellbeing' and 'happiness' are also used in reference to social systems. When speaking about the 'happiness of society' we often aim at the collective level, how well society functions and maintains itself. Propagandists also exploit this ambiguity, in this case as a means to disguise differences in interest between individuals and society.

In this paper, I focus on the quality of individual human lives. As we will see, that is difficult enough. The conceptual distinctions presented below are discussed in more detail elsewhere (Veenhoven 2000).

What 'quality' of life? A classic distinction is between 'objective' and 'subjective' quality of life. The first refers to the degree that a life meets explicit standards of the good life, as assessed by an impartial outsider. For instance, the result of a medical examination. The latter variant concerns self-appraisals based on implicit criteria, for example, someone's subjective feeling of health. These qualities do not necessarily correspond; someone may be in good health by the criteria of his doctor, but feel bad. Based on this distinction, Zapf (1984: 25) has proposed a fourfold classification of 'welfare' concepts. When conditions of life score good on objective measures and subjective appreciation of life is positive, he speaks of 'well-being'; when both evaluations are negative, he speaks of 'deprivation'. When objective quality is good, but subjective appreciation is negative, the term 'dissonance' is applied, and the combination of bad conditions and positive
appreciation is labeled 'adaptation'.

Though elegant, these distinctions have not proven particularly useful. The taxonomy does not explain much. The main reason is that the difference is more in observation than in substance. Objective health-assessment aims at the same qualities as subjective appraisals, though by different means. Further, the labeling gives rise to misunderstanding. The word 'objective' suggest indisputable truth, whereas the term 'subjective' is easily interpreted as a matter of arbitrary taste. This suggestion is false; the fact that income can be measured objectively does not mean that its value is beyond question.

Chances and outcomes
A substantively more relevant distinction is between opportunities for a good life and the good life itself. This is the difference between potentiality and actuality. I refer to this as 'life-chances' and 'life-results'. Opportunities and outcomes are related, but are certainly not the same. Chances can fail to be realized, due to stupidity or bad luck. Conversely, people sometimes make much of their life in spite of poor opportunities.

This distinction is quite common in the field of public-health research. Pre-conditions for good health, such as adequate nutrition and professional care are seldom mixed up with health itself. Much research is aimed at assessing the relationships between these phenomena, for instance by checking whether common nutritional advice really yields extra years lived in good health. Yet, in social policy discussions means and ends are less well distinguished.

Outer and inner qualities
A second difference is between 'external' and 'internal' qualities. 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 telling 'quality of society' from 'quality of persons'.

This distinction is also quite common in public health. External pathogens are distinguished from inner afflictions, and researchers try to identify the mechanisms by which the former produce the latter, and the conditions in which this is more and less likely. Yet again, this basic insight is lacking in many social policy discussions.

Four qualities of life
The combination of these two dichotomies yields a fourfold matrix. This classification is presented in Scheme 1. The distinction between chances and results is presented vertically, the difference between outer and inner qualities horizontally.

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

The lower half of the scheme is about the quality of life with respect to its outcomes. These outcomes can be judged by their value for one's environment and value for oneself. The external worth of a life is denoted by the term 'utility of life'. The inner valuation of it is called 'appreciation of life'. These matters are of course related. Knowing that one’s life is useful will typically add to the appreciation of it. Yet not all-useful lives are happy lives and not every good-for-nothing really cares. This difference has been elaborated in discussions on utilitarian moral philosophy, which praises happiness as the highest good. Adversaries of that view hold that there is more worth to life than just pleasures and pains. Mill (1861)
summarized that position in his famous statement that he preferred an unhappy Socrates to a happy fool.

**Scheme 1**

**Four qualities of life**

<table>
<thead>
<tr>
<th>Outer qualities</th>
<th>Inner qualities</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Life chances</strong></td>
<td>Livability of environment</td>
</tr>
<tr>
<td><strong>Life results</strong></td>
<td>Utility of life</td>
</tr>
</tbody>
</table>

**Livability of the environment**

The left top quadrant denotes the meaning of good living conditions. Formerly, the term 'happiness' was often used for this particular meaning, especially in social philosophy. Currently, this matter is mostly called 'quality-of-life' or 'wellbeing'. Other terms are 'welfare' and 'level of living'.

'Livability' is a better word, because it refers explicitly to a characteristic of the environment and does not have the limited connotation of material conditions. One could also speak of the 'habitability' of an environment, though that term is also used for the quality of housing in particular. Elsewhere I have explored that concept of livability in more detail (Veenhoven 1996:7-9).

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 environmental preservation. City planners see livability in the built environment and associate it with 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. Firstly, livability is associated with the quality of society as a whole. Classic concepts of the ‘good society’ stress material welfare and social equality, sometimes equating the concept more or less with the welfare state. Current notions emphasize close networks, strong norms and active voluntary associations. The reverse of that livability concept is ‘social fragmentation’. Secondly, livability is seen in one’s position in society. For long, the emphasis was on ‘under-class’ but currently attention shifts to ‘outer-class’. The corresponding antonyms are ‘deprivation’ and ‘exclusion’.

**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. This aspect of the good life is also known by different names. The words 'quality of life' and 'wellbeing' are also used by doctors and psychologists to denote this specific meaning. There are more names however. In biology, the phenomenon is referred to as 'adaptive potential'. On other occasions, it is denoted by the medical term 'health', in the medium variant of the word. In psychology, the term 'healthfulness' is used, or by psychological terms such as 'efficacy' or 'potency'. Sen (1992) calls this quality of life variant 'capability'. I prefer the simple term 'life-ability', which contrasts elegantly with 'livability'.

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

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

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 in idleness, this quality of life is close to the ‘activity’ in Aristotle’s concept of eudaimonia (Ostenfelt, 1994). This quality concept is also currently used in the training professions.

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

Utility of life

The left bottom quadrant represents the notion that a good life must be good for something more than itself. This presumes some higher values. There is no current generic for these external turnouts of life. Gerson (1976: 795) referred to these kinds 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 more simple 'utility of life', admitting that this label may also give rise to misunderstanding. Be aware that this external utility does not require inner awareness. A person's life may be useful from some viewpoints, without them knowing.

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

At a higher level, quality of life is seen in contributions to society. Historians see quality in the addition an individual can make to human culture, and rate for example the lives of great inventors higher than those of anonymous peasants do. Moralists see quality in the preservation of the moral order, and would deem the life of a saint to be better than that of a sinner.

In this vein, the quality of a life is also linked to effects on the ecosystem. Ecologists see more quality in a life lived in a 'sustainable' manner than in the life of a polluter. In a broader view, the utility of life can be seen in its consequences for long-term evolution. As an individual's life can have many environmental effects, the number of such utilities is almost infinite.

Apart from its functional utility, life is also judged on its moral or esthetic value. Returning to Mill's statement that he preferred an unhappy Socrates to a happy fool, Mill did not say this just because Socrates was a philosopher whose words have come down to us; it was also because he admired Socrates as an outstanding human being. Likewise, most of us would attribute more quality to the life of Florence Nightingale than to that of a drunk, even if
it appeared 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'.

**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.

In evaluating our life, we typically summarize this rich experience in overall appraisals. For instance, we appreciate domains of life. When asked how we feel about our work or own 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. As the future is less palpable than the past and the present, hopes and fears depend more on affective inclination than on cognitive calculation. Next to aspects of life, we also judge life-as-a-whole. Bentham thought of that as a 'mental calculus', in which we balance 'pleasures and pains'. I will come back on that matter in section 4.

Mostly such judgments are not very salient in our consciousness. Now and then, they pop to mind spontaneously, and they can be recalled and refreshed when needed. Sometimes however, life-appraisals develop into pervasive mental syndromes such as depression or ennui.

### 2.2 Happiness and other enjoyments

Even when we focus on subjective enjoyment of life, there are still different meanings associated with the word happiness. These meanings can also be charted in a fourfold classification. In this case, that classification is based on the following dichotomies:

**Life-aspects versus life-as-a-whole**

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.

**Passing delight versus enduring satisfaction**

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 at other occasions for stable satisfaction. Once more, these matters are related but not the same.
Four enjoyments of life

When combined, these distinctions produce the fourfold classification presented in Scheme 2. The difference between part and whole is presented vertically, and the distinction between passing and enduring enjoyment horizontally.

The top-left quadrant represents passing enjoyments of life-aspects. Examples are, the delight of a cup of tea at breakfast, the satisfaction with a chore done or the enjoyment of a piece of art. I refer to that category as instant satisfactions. Kanahan (2000) calls it instant-utilities.

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.

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.

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

2.3 Definition of happiness

In this line, happiness is defined as the degree to which a person evaluates the overall quality of his present life-as-a-whole positively. In other words, how much the person likes the life he/she leads.

Scope of evaluation

The concept of happiness denotes an overall evaluation of life. Therefore, the appraisal that life is 'exciting' does not mark it as 'happy'. There may be too much excitement in life, and too little of other qualities. The overall evaluation of life involves all the criteria figuring in the mind of the individual: how good it feels, how well it meets expectations, how desirable it is deemed to be, etc.

Kind of evaluation

When we appraise how much we appreciate the life we live, we seem to use two sources of information: Affectively, we estimate how well we feel generally, and at the cognitive level
we compare 'life as it is' with standards of 'how life should be'. The former affective source of information seems generally to be more important than the latter cognitive one (Veenhoven 1996a: 33-35). The word happiness is commonly used for these 'subtotals' as well as for the comprehensive appraisal. I use the terms 'overall happiness' or 'life satisfaction' for the comprehensive judgment and refer to the affective and cognitive sub-appraisals as respectively 'hedonic level of affect' and 'contentment'. These concepts are delineated in more detail in Veenhoven (1984: chapter 2).

Temporal range
Appraisals of life can concern different periods in time: how life has been, how it is now, and how it will probably be in the future. These evaluations do not coincide necessarily; one may be positive about past life, but negative about the future. The focus of this paper is on satisfaction with present life.

Appreciation of present life is not the same as mood of the moment. One may be dissatisfied with life, but still feel euphoric occasionally. Momentous affect may influence the perception of life-experiences and the global judgment of life, but it is not synonymous with happiness as defined here.

Variable aspects
Evaluations of life may differ in several respects. One difference is in their certainty: some people are rather definitive about their appraisal of life, whereas others vacillate. Another point of variation is how well considered the judgment is: some people judge rather intuitively, while others engage in elaborate contemplation. Furthermore, appraisals of life are probably not always equally appropriate. Like any perception they can be distorted in various ways, such as by mis-attribution and self-deceit. This is commonly referred to as 'false happiness'. Distorted judgments of life are clearly less valuable as an indicator of apparent quality of life. Nevertheless, inappropriate happiness is still happiness. Unlike most philosophers, I do not preserve the word for denoting the 'truly good'.

3 PREVALENCE OF HAPPINESS

We can go on to considering how happy people are in the present day world and to what extent they differ in enjoyment of life.

Level of happiness
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, Veenhoven 2003). Together, the data support the optimist view.

Above subsistence level, most people enjoy life
The first representative surveys were carried out in Western countries and showed an uneven distribution of happy and unhappy citizens; the happy outweighing the unhappy by about 3 to 1. This finding raised much doubt about the validity of survey questions (as
discussed previously). However, later cross-national studies showed that unhappiness prevails in third world nations, where a large proportion of the population lives at subsistence levels. This latter finding put to rest many of the aforementioned validity doubts.

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 1984a: 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 smart and danger can we cope effectively with the problems of life.

4 DETERMINANTS OF HAPPINESS

Having established that people differ in happiness, the next question is why. The aim of creating greater happiness for a greater number requires an understanding of its
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. Scheme 3 presents a tentative ordering of factors and processes in a sequence-model5.

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-chances6. 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 almost exclusively on its relation to life-chances.

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 4 presents many strong correlations between average happiness and societal qualities.

Material affluence
Above in scheme 4 we see that happiness is typically greater in the economically most prosperous nations. The richer the country, the happier its inhabitants.

The relationship with purchasing power is curvi-linear; among poor nations the relationship is more pronounced than among affluent countries. When the $20,000 point is passed, the regression line is almost flat, which suggest that the law of diminishing returns applies. Below we will see a similar pattern at the individual level: correlations between personal happiness and personal income are strong in poor countries and weak in rich nations.

The effect of economic affluence can partly be explained by its effect on prevalence of absolute poverty. Yet, the data show this is not the whole story. Apparently, material welfare provides more gratifications than mere subsistence.

Security
Happiness is also higher in the nations that provide most safety. In Scheme 4, we see strong relationships with physical safety and legal security, which appear to be largely independent of economic affluence. The relationship with state provided social security is less pronounced, and disappears when economic affluence is controlled.

Freedom
People are also happier in the nations that allow most autonomy. In Scheme 4 we see strong relationships with indicators of political freedom, which are largely independent of economic affluence. Correlations with indicators of personal freedom are less strong, but all positive. The relationship with perceived freedom is quite high.

Freedom in society can affect the happiness of citizens in several ways: Political freedom is likely to provide protection against injustice and assault. Personal freedom can make that people choose life-styles that better fit personal needs and capacities. Both effects are likely to result in more rewarding events. Opportunity-to-choose adds to happiness only in publics with a well developed capability-to-choose (Veenhoven 1996).

Equality
Scheme 4 further shows some relations with social stratification. Surprisingly, there is little correlation with income-equality. Yet, there are pronounced relationships with gender-equality and with absence of class-inequality.

Social inequality can affect happiness negatively by the frustrations and limitations it involves. Possibly, some kinds of inequality also involve positive effects, which balance the negative ones. This may be the case with income-inequality.
Cultural climate
People appear to be happiest in the countries that provide most 'education' and 'information'. The partial correlations show that the relationships are not independent of economic wealth. As of yet, it is still unclear as to what extent the common variance is due to knowledge, and how knowledge influences happiness.

Under the same headline, we also see some links with 'religion'. Belief in God in the country is positively related to average happiness, but religious participation is not. This suggests that the effect is mainly a matter of perceived meaning.

There are also strong links with 'values'. People are typically happier in the nations where individualism is adhered and authoritarianism is rejected, in other words, where a modern value-orientation prevails. These correlations are not independent of economic affluence.

Social climate
Scheme 4 shows a strong link with 'tolerance'. The less prejudice, the more happiness. Correlations with 'trust' are less pronounced, but all positive.

Findings on social participation are contradictory. Contrary to common opinion we see that people are happier in the countries with the highest 'unemployment' rates. This underlines that involvement in work is not always beneficial to everybody. Common opinion receives more support in the correlation with 'memberships' of voluntary organizations. The more involvement in a nation, the happier its citizens are.

Not surprisingly, people tend to be happier in a climate of 'peacefulness'. The more militarized society, the less happy its inhabitants. This relationship is independent of economic affluence.

Population pressure
At the bottom of Scheme 4, we see that happiness is unrelated to both population density and to population growth. This finding contradicts the theory that we still need the life-space of the savanna in which the human species evolved. Apparently, we can live as well in a heap.

Modernity
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.
**Limitations of these data**

One of the problems in this field is the limited number of countries on which comparable data on happiness is available. As yet the data cover only Australia, Europe and North America completely. Africa is poorly represented in the data and the Middle East not at all. Some of the relationships could pan out differently in a more representative dataset.

The number of cases also limits the possibilities for multi-variate analysis. Spurious effects and conditional correlations cannot be described in much detail.

Another problem is the lack of time-series. This hinders the distinction between cause and effects. Most of the correlations in Scheme 6 can be explained as either caused by the nation-characteristic involved, or as an effect of happiness on that nation-characteristic. For instance: the correlation with economic affluence may mean that material wealth makes life more enjoyable or that happy people create more wealth.

Fortunately, the number of cases is growing every year. Data on happiness is gathered in the ongoing World Database of Happiness, which already involves some interesting time-series (Veenhoven 1993).

**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.

**Social status**

Many studies have assessed links with social status variables. The guiding assumption is typically that people in advantaged social positions will take more pleasure in life. Differences are mostly in the expected direction, but small.

**Age:** Old and young are about equally happy in most countries. Contrary to common opinion life appears quite satisfying in old age, even in very old age.

**Gender:** The happiness of males and females do not differ very much either. In some countries males are slightly happier, in others females. At this point, it still has not been established why.

**Income:** Another commonly investigated issue is the relationship of happiness with earnings. Studies in affluent welfare states typically find only small correlations, but in other countries quite substantial differences are observed. The poorer the nation, the higher the correlations tend to be. This pattern does not fit the theory that happiness derives from social comparison. This implication will be discussed in more detail in the end of this paper.

**Education:** The pattern of correlation with schooling is similar. Again high correlations in poor nations and low correlations in rich ones. Recent studies in rich nations show even slightly negative correlations with level of school-education. This does not mean that education itself breeds dissatisfaction. As we have seen the most educated countries are the happiest. The relative unhappiness among the highly educated is probably due to a lack
of jobs at that level and possibly to the fading of earlier advantages in the process of social equalizing.

**Occupation:** There is more correlation with vocation. All over the world, professionals and managers tend to be most happy. It is not clear as to what extent this difference results from the rewards of work-tasks, related advantages or differential selection.

**Social ties**
Next to social-status matters, social-relations have been considered, both primary ties in the private sphere of life and secondary relations in public life. Together, these variables explain another 10% of the observed variation in happiness.

**Intimate ties:** Happiness is quite consistently related to presence and quality of private relations. However, not all kinds of ties are equally related to happiness in all countries. In western nations, the tie with a 'spouse' is more important than contacts with 'friends' and 'relatives'. Studies in western nations showed that 'children' do not add to the happiness of married persons. However, among those who have children, happiness is closely related to quality of contacts with children.

**Social participation:** Happiness tends to be higher among persons who have 'paid work'. However, 'housewives' are not less satisfied. Neither does 'retirement' make life less satisfying. Happiness is more consistently related to participation in 'voluntary organizations'.

### 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%.

**Health**
Happiness tends to be greater among persons who are in good 'physical shape' and who have a lot of 'energy'. The happy also share characteristics of good 'mental health' and 'psychological resilience'.

**Mental proficiencies**
Curiously, happiness tends to be unrelated to 'intelligence'; at least to school-intelligence as measured by current IQ-tests. However, 'social skills' do differentiate between happy and unhappy. Happiness is typically accompanied by social assertiveness and good empathy attributes.

**Personality**
With respect to personality, the happy tend to be socially 'extravert' and 'open' to experience. There is a notable tendency towards 'internal control' beliefs, whereas the unhappy tend to feel they are a toy of fate.

Much of the findings on individual variation in happiness boil down to a difference in ability to control ones environment. It has not been established as to what extent this
pattern is universal. Possibly, it is more common in modern individualized western societies.

Limitations of these data
There are several problems with these correlational findings. Firstly, it is not always clear as to what extent the correlations are spurious. For instance, the positive correlation with marital status is partially produced by a selection effect; the married typically being in better mental health. This problem can be solved by systematic checks. A growing number of studies perform elaborate checks for spuriousness.

A second problem is the direction of causality. It is not always clear what is cause and what is effect. In the example of marital status, the positive correlation can result from advantages of married living as well as from better marriage chances of the happy. (In fact, both effects are involved (Veenhoven 1989). Considering longitudinal data can solve this problem). As of yet, such data are scarce. However, the amount is growing.

A final problem is that effects can be conditional. For example, married status adds more to happiness in the most modern western nations such as Denmark and the Netherlands as opposed to more traditional countries like Ireland and Italy. Identification of such contextual effects requires comparable data in a sizable number of countries, preferably from different epochs. More and more of such data are becoming available. The data needed for solving these problems is gathered in the previously mentioned World Database of Happiness (note 3).

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 maladaptation 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 one’s 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, the search could also lead to the conclusion that this hope is idle. For instance, if research confirms 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.

5.1 Is happiness relative?

As we have seen above, one of the theories of how we evaluate life assumes that we compare life-as-it-is to conceptions of how-life-should-be. Standards of how life-should-be are seen to draw on perceptions of what is feasible and on reference to others. Standards of comparison are thought to adjust. The more money we earn and the more our neighbors have, the higher the amount of money we would deem necessary for a decent living. Together these assumptions imply that it is not possible to create lasting happiness, at neither the individual level, nor the societal level.

At the individual level, this theory predicts that happiness is a short-lived phenomenon. We would be happy when life comes close to ideal, but in coming closer to ideal we would set higher demands and end up as equally unhappy as before. Likewise, social comparison would impede lasting happiness. When we have surpassed the Jones, reference drifts upward to the Petersons, and we feel unhappy again. This theory has many variations.

At the societal level, the theory implies that average happiness will fluctuate around a neutral level. Because individual citizens oscillate between happiness and unhappiness, the average will be in between. Social comparison is also likely to result in a neutral average; the happiness of the citizens who do better is neutralized by the unhappiness of the ones who do worse. Consequently, average happiness should be approximately the same in all countries.

Empirical evidence

Some often-cited investigations claim support for this theory. Easterlin (1974) saw the theory proved by his observation that happiness is as high in poor countries as it is in rich countries. Brickman et al (1978) assert that happiness is relative because they found that lottery-winners are not happier than paralyzed accident victims are.

Elsewhere I have exposed these sensational claims (Veenhoven 1991). Happiness appears not to be is not the same in poor and rich nations and neither are accident victims equally happy as lottery winners. The differences may be smaller than one might have thought, but they exist undeniably.

I also checked some other implications of the theory that happiness is relative. One such implication is that changes in living-conditions, to the good or the bad, do not
lastingly affect the appreciation of life. However, there is good evidence that we do not adjust to everything. For instance, we do not adjust to the misfortune of having a handicapped child or the loss of a spouse.

Another implication I checked is that earlier hardship favors later happiness. Survivors of the Holocaust were found less happy than Israelis of the same age who got off scot-free.

A last empirical check to be mentioned is the correlation with income. The theory that happiness is relative predicts a strong correlation in all countries, irrespective of their wealth. Income is a salient criterion for social comparison, and we compare typically with compatriots. This prediction is not confirmed by the data. In several rich countries, the correlation is close to zero.

All in all, there is no empirical support for the theory that happiness is relative.

*Theoretical flaws*
Proponents of this theory see happiness as a purely cognitive matter and do not acknowledge affective experience. They focus on conscious wants and neglect unconscious needs. Another fault is that they think of the evaluation of life as a piece-meal mental calculus, rather than a global inference on the basis of general affect.

As argued above, affective experience signals the gratification of basic needs. Contrary to ‘wants’, ‘needs’ are not relative. Needs are absolute demands for human functioning that do not adjust to all conditions; in fact, they mark the limits of human adaptability. To the extent that it draws on need-gratification, happiness is not relative.

*Difference with life-aspect evaluations*
The theory applies better to some domain-satisfaction. For instance, income-satisfaction appears to be largely a matter of comparison, and standards of reference on this matter have been shown to drift (VanPraag 1989). There are also indications for comparison processes in satisfaction with health and satisfaction with job.

5.2 **Is life-satisfaction an unalterable trait?**
The other theory that denies hope of creating greater happiness for the greater number holds that happiness is a fixed disposition. This theory figures at the individual level as well as the societal level.

*Personal character trait?*
The individual level variant sees happiness as a psychological trait; a general tendency to like or dislike things. This tendency can stem from an inborn temperament as well as early experience. This trait is believed to shape the perception of life-experiences (step 3 in Scheme 4) as well as the overall evaluation of life (step 4). In this view, improvement of living conditions will not result in greater happiness. The evaluative reaction will remain the same; the discontented will always be disgruntled and satisfied will always see the sunny side of things.

Elsewhere, I have taken stock of the empirical evidence for this theory (Veenhoven 1994², 1995). I inspected whether happiness is 1) temporally stable, 2) cross-situational consistent and 3) inner caused. None of this appeared to be the case.

Firstly, happiness does not remain the same over time, particularly not over the length of a lifetime. Individuals revise their evaluation of life periodically. Consequently, happiness changes quite often, both absolutely and relatively towards others.
Secondly, happiness is not insensitive to change in living-conditions. Improvement or deterioration is typically followed by a rise or decline in appreciation of life. This appears for instance in the sequel of widowhood and divorce.

Thirdly, happiness is not entirely an internal matter. It is true that evaluations of life are influenced by personal characteristics. However, these inner alignments modify the impact of environmental effects rather than determine them.

National character trait?
The societal variant of this theory (folklore-theory) assumes that happiness is part of the national-character. Some cultures would tend to have a gloomy outlook on life, whereas others are optimistic. Elsewhere I have examined the empirical evidence for this theory (Veenhoven 1993:ch5, 1994, 1995, 2000). Together, findings unequivocally deconstruct the argument that happiness is too static a phenomenon to be changed.

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.
**Scheme 3**
**Evaluation of life; a sequence model of conditions and processes**

<table>
<thead>
<tr>
<th>LIFE-CHANCES</th>
<th>COURSE OF EVENTS</th>
<th>FLOW OF EXPERIENCE</th>
<th>EVALUATION OF LIFE</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Livability of environment</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>- <strong>Quality of society</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>- Economic welfare</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>- Social equality</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>- Political freedom</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>- Etc...</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>- <strong>Position in society</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>- material property</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>- political influence</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>- social prestige</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>- Etc...</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Life ability of the individual</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>- Physical fitness</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>- Psychic fortitude</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>- Social capability</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>- Intellectual skill</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>- Art of living</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>- Etc...</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

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

Conditions for life-satisfaction  

Appraisal process
### Scheme 4
#### Societal characteristics and happiness of citizens in nations in the 1990s

<table>
<thead>
<tr>
<th>Correlation with happiness</th>
<th>Income Zero-order controlled</th>
<th>N</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Material affluence</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Income per head: purchasing power 1989</td>
<td>+.53</td>
<td>66</td>
</tr>
<tr>
<td>Incidence of absolute poverty:</td>
<td></td>
<td></td>
</tr>
<tr>
<td>- malnutrition: % &lt; 2500 calories</td>
<td>-.12</td>
<td>+.15</td>
</tr>
<tr>
<td>- % without safe water</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Security</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Physical security</td>
<td></td>
<td></td>
</tr>
<tr>
<td>- murder rate</td>
<td>+.08</td>
<td>+.35</td>
</tr>
<tr>
<td>- lethal accidents</td>
<td>-.51</td>
<td>-.40</td>
</tr>
<tr>
<td>Legal security: incidence of corruption</td>
<td>-.59</td>
<td>-.30</td>
</tr>
<tr>
<td>Social security: state expenditures in % GDP</td>
<td>+.15</td>
<td>-.31</td>
</tr>
<tr>
<td><strong>Freedom</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Political freedom</td>
<td></td>
<td></td>
</tr>
<tr>
<td>- respect of political rights</td>
<td>+.36</td>
<td>-.04</td>
</tr>
<tr>
<td>- respect of civil rights</td>
<td>+.41</td>
<td>-.09</td>
</tr>
<tr>
<td>Personal freedom</td>
<td></td>
<td></td>
</tr>
<tr>
<td>- freedom of marriage: acceptance divorce</td>
<td>+.17</td>
<td>-.16</td>
</tr>
<tr>
<td>- freedom of procreation:</td>
<td></td>
<td></td>
</tr>
<tr>
<td>- abortion available</td>
<td>-.18</td>
<td>-.61</td>
</tr>
<tr>
<td>- sterilization available</td>
<td>+.19</td>
<td>+.08</td>
</tr>
<tr>
<td>freedom of sexuality:</td>
<td></td>
<td></td>
</tr>
<tr>
<td>- acceptance of homosexuality</td>
<td>+.57</td>
<td>+.30</td>
</tr>
<tr>
<td>- acceptance of prostitution</td>
<td>+.41</td>
<td>+.13</td>
</tr>
<tr>
<td>freedom to dispose of own life:</td>
<td></td>
<td></td>
</tr>
<tr>
<td>- acceptance suicide</td>
<td>+.27</td>
<td>-.09</td>
</tr>
<tr>
<td>- acceptance of euthanasia</td>
<td>+.18</td>
<td>-.10</td>
</tr>
<tr>
<td>Self-perceived freedom</td>
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<td></td>
</tr>
<tr>
<td>- in life</td>
<td>+.72</td>
<td>+.70</td>
</tr>
<tr>
<td>- at work</td>
<td>+.75</td>
<td>+.64</td>
</tr>
<tr>
<td><strong>Social equality</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Income-equality: ratio lowest to highest 20%</td>
<td>+.24</td>
<td>+.50</td>
</tr>
<tr>
<td>Gender-equality: woman empowerment index</td>
<td>-.13</td>
<td>-.11</td>
</tr>
<tr>
<td>Class-inequality: educational homogamy</td>
<td>-.31</td>
<td>-.22</td>
</tr>
<tr>
<td><strong>Cultural climate</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Education</td>
<td></td>
<td></td>
</tr>
<tr>
<td>- % literate</td>
<td>-.15</td>
<td>-.53</td>
</tr>
</tbody>
</table>

Table entries: + correlation with happiness, - correlation with happiness, N = sample size.
<table>
<thead>
<tr>
<th>Category</th>
<th>Variable</th>
<th>Correlation</th>
<th>Sign</th>
<th>p-value</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>School enrolment ratio</strong></td>
<td></td>
<td>+.15</td>
<td>+</td>
<td>.26</td>
</tr>
<tr>
<td><strong>Average years in school</strong></td>
<td></td>
<td>-.07</td>
<td>-</td>
<td>.64</td>
</tr>
<tr>
<td><strong>Information</strong></td>
<td><strong>Newspapers p.c.</strong></td>
<td>+.21</td>
<td>+</td>
<td>.32</td>
</tr>
<tr>
<td></td>
<td><strong>TV's 1995</strong></td>
<td>-.42</td>
<td>-</td>
<td>.45</td>
</tr>
<tr>
<td></td>
<td><strong>PC's per 1000</strong></td>
<td>+.58</td>
<td>+</td>
<td>.26</td>
</tr>
<tr>
<td><strong>Religion</strong></td>
<td><strong>belief in god</strong></td>
<td>+.22</td>
<td>+</td>
<td>.49</td>
</tr>
<tr>
<td></td>
<td><strong>religious identification</strong></td>
<td>+.04</td>
<td>+</td>
<td>.18</td>
</tr>
<tr>
<td></td>
<td><strong>religious participation</strong></td>
<td>+.17</td>
<td>+</td>
<td>.41</td>
</tr>
<tr>
<td><strong>Value orientation: Hofstede dimensions</strong></td>
<td><strong>individualism</strong></td>
<td>+.56</td>
<td>+</td>
<td>.30</td>
</tr>
<tr>
<td></td>
<td><strong>power distance</strong></td>
<td>-.47</td>
<td>-</td>
<td>.18</td>
</tr>
<tr>
<td></td>
<td><strong>masculinity</strong></td>
<td>-.30</td>
<td>-</td>
<td>.36</td>
</tr>
<tr>
<td></td>
<td><strong>uncertainty avoidance</strong></td>
<td>-.52</td>
<td>-</td>
<td>.52</td>
</tr>
<tr>
<td><strong>Social climate</strong></td>
<td><strong>Tolerance</strong></td>
<td>+.64</td>
<td>+</td>
<td>.44</td>
</tr>
<tr>
<td></td>
<td><strong>absence of prejudice</strong></td>
<td>+.24</td>
<td>+</td>
<td>.35</td>
</tr>
<tr>
<td></td>
<td><strong>in work: unemployment</strong></td>
<td>+.54</td>
<td>+</td>
<td>.48</td>
</tr>
<tr>
<td><strong>Trust</strong></td>
<td><strong>trust in people</strong></td>
<td>+.34</td>
<td>+</td>
<td>.01</td>
</tr>
<tr>
<td></td>
<td><strong>trust in family</strong></td>
<td>+.40</td>
<td>+</td>
<td>.34</td>
</tr>
<tr>
<td></td>
<td><strong>trust in institutions</strong></td>
<td>+.38</td>
<td>+</td>
<td>.61</td>
</tr>
<tr>
<td></td>
<td><strong>trust in compatriots</strong></td>
<td>+.09</td>
<td>+</td>
<td>.05</td>
</tr>
<tr>
<td><strong>Social participation</strong></td>
<td><strong>in work: unemployment</strong></td>
<td>+.24</td>
<td>+</td>
<td>.35</td>
</tr>
<tr>
<td></td>
<td><strong>in voluntary associations: memberships</strong></td>
<td>+.54</td>
<td>+</td>
<td>.48</td>
</tr>
<tr>
<td><strong>Peacefulness</strong></td>
<td><strong>military dominance: soldier/civilian ratio</strong></td>
<td>-.44</td>
<td>-</td>
<td>.57</td>
</tr>
<tr>
<td></td>
<td><strong>military expenditure in % GDP</strong></td>
<td>-.56</td>
<td>-</td>
<td>.62</td>
</tr>
<tr>
<td><strong>Population pressure</strong></td>
<td><strong>Population density: persons per km²</strong></td>
<td>-.05</td>
<td>-</td>
<td>.23</td>
</tr>
<tr>
<td></td>
<td><strong>Population growth: population doubling time</strong></td>
<td>+.07</td>
<td>+</td>
<td>.17</td>
</tr>
<tr>
<td><strong>Modernity</strong></td>
<td><strong>Urbanization: % urban population</strong></td>
<td>+.22</td>
<td>+</td>
<td>.72</td>
</tr>
<tr>
<td></td>
<td><strong>Industrialization: non-agricultural share GDP</strong></td>
<td>-.19</td>
<td>-</td>
<td>.47</td>
</tr>
<tr>
<td></td>
<td><strong>Information: telephones pc</strong></td>
<td>+.32</td>
<td>+</td>
<td>.49</td>
</tr>
<tr>
<td></td>
<td><strong>Individualization: expert rating</strong></td>
<td>+.44</td>
<td>+</td>
<td>.08</td>
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</table>

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In sociology, the term 'life-chances' is used in the more limited meaning of access to scarce resources in society.

There are three main meanings or health: The maxi variant is all the good (WHO definition), the medium variant is life-ability, and the mini-variant is absence of physical defect

A problem with this name is that the utilitarians used the word utility for subjective appreciation of life, the sum of pleasures and pains.

4 Frankl's (1946) logo-therapy aims to make people believe in meanings of their life they do not see.

5. This model is inspired by the "Stocks and Flows" framework proposed by Heady and Wearing (1991). What these authors call "stocks" is referred to as individual "life-chances" here. Heady & Wearing did not include societal differences. The term "flows" covers both 'life-events' and derived 'psychic income'. Here these matters are distinguished. The reason is that reactions on events may differ. Not everybody suffers under job-loss; some actually revive.

6. The concept of 'life-chances' is used here in a broad sense, and refers to all conditions that affect probabilities of fortune or adversity. The term is also used in more narrow meanings. Sometimes it refers to societal conditions only; for instance when we say that life-chances are poor in developing countries. On other occasions the term refers to positional differences within societies; for example, when we say that unskilled manual workers have less chances in life. Mostly the concept is restricted to opportunities provided by society, and does not include differences in individual capacities.

7. Elsewhere I have investigated that matter in more detail on another dataset. Comparing across nations in the early 1980's, I found greater correlations between average happiness and welfare expenditures, but these correlations also disappeared when economic affluence was controlled. Comparison trough time in some countries showed that happiness had not increased more in the nations where the welfare state had expanded most. (Veenhoven & Ouweneel 1995, Veenhoven 2000b).

8. This effect is largely due to the former communist countries in this dataset. At the time of this study these unhappy countries still had full employment (at least officially). When these cases are omitted, the correlation is reduced to zero, which is still not the negative relationship one would expect.

9. This paper has been criticized by Stones et. al. (1995). A rejoinder appears in Veenhoven (1997b).