ADVANCES IN UNDERSTANDING HAPPINESS

Ruut Veenhoven

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Summary
One of the goals of social policy is to create greater happiness for a greater number. Realization of this ambition requires understanding of happiness. The following questions must be answered: 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? 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 in answering these questions.

1. INTRODUCTION

The subject of happiness has long been a playground for philosophical speculation. By lack of valid measures of happiness, propositions about the matter could not be tested empirically. 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. Fairly dependable measures of happiness have been developed, and by means of these measures a significant body of knowledge has evolved. This paper presents an account of this new field and its crop.

1.1 Contemporary study of happiness

During the last decades, the subject of happiness has become an issue in sociology and psychology. Currently the issue emerges in medical research as well. Most studies on the subject are part of a broader field of enquiry, commonly referred to as *Quality of Life (QOL).*

Quality-of-life research

Quality-of-life research tries to define what a good life is and how well reality meets these standards. Its trust is to find ways to a better life. QOL-research is part of a wider tradition of 'social engineering'.

Ideologically, this research tradition is rooted in 18th century Enlightenment thinking. In that perspective, the purpose of human life is life itself, rather than the service of King or God. Self-actualization and happiness become central values. Society is seen as a means to provide citizens a good life. In the 19th century, that conviction manifested itself in Utilitarian creed that the best society is one that provides "the greatest happiness for the greatest number". In the 20th century it inspired large scale attempts to planned social reform and influenced the development of welfare states.

Correspondence to: Prof. Dr. Ruut Veenhoven Erasmus University Rotterdam, Faculty of Social Sciences, P.O.B. 1738 3000 DR Rotterdam, Netherlands. **www2.eur.nl/fsw/research/veenhoven**

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 by 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. As a result, the term `quality-of-life' was introduced. Initially the concept was polemic. It served to denote that there is more than just material welfare. A similar development to place in medical effect research.

Conceptions of Quality-of-life

Currently, the term `quality-of-life' denotes two meanings: 1) the presence of conditions deemed necessary for a good life and 2) the practice of good living as such.

When used at the societal level, only the former meaning applies. When we say that the quality-of-life in a country is poor, we mean that essential conditions are lacking, such as sufficient food, housing and health-care. In other words: the country is not `livable' for its inhabitants. The latter meaning does not apply at the societal level. We cannot say that a country itself lives well. A country doesn't `live'; only its inhabitants do.

At the individual level, the term is used in both meanings. When we say that somebody doesn't have a good life, we may mean that he lacks things we deem indispensable and/or that this person pines away. These conditions may coincide, but they do not concur necessarily. A person can be rich, powerful and popular, but still be troubled and ailing. On the other hand, someone who is poor, powerless and isolated, may nevertheless thrive mentally and physically and mentally. I refer to these variants as respectively: *presumed* quality-of-life and *apparent* quality-of-life.

1.2 Uses of happiness concept

Happiness is one of the indicators of `apparent' quality of life. Together with indicators of mental and physical health, it shows how well people thrive. Data on happiness is used for several purposes.

Measuring quality-of-life

The most elementary use of happiness data is to estimate apparent quality of life in a population. This is typically done to asses whether there is a social problem that requires policy intervention.

If most people are happy, this suggests that the quality-of-life is good. Though life may not be ideal to all standards, it is apparently livable for most. Mass unhappiness marks serious shortcomings of some kind. This is for example the case with singles. In all modern nations, single persons take less pleasure in life than married persons; divorced and widowed persons are particularly unhappy. This difference in happiness between singles and couples is mostly greater than between rich and poor (Veenhoven 1984:6/4). Such differences in happiness are typically

interpreted as a result of `deprivation', singles are seen to fall short of something.

A problem with that use of the concept is that it indicates that *something* is wrong, but does not indicate *what*. The discontent of the unmarried could be due to negative labeling, but it can also be attributed to loneliness and lack of social support. Still another problem is that the difference can be due to selection. Unhappy people may be less inclined to marry or be less attractive as a marriage partner.

Monitoring social progress

A related application of happiness data is monitoring progress and decline over time. If happiness increases, this suggests that quality of life has improved. If happiness declines, this indicates that problems have emerged somewhere. An example of monitoring at the national level is Easterlin's (1974) analysis of the development of happiness and economic growth in the postwar decades in the USA. He observed that average happiness remained at the same level, in spite of a doubling of economic welfare. He concluded that money does not buy happiness. An example of following social categories is the study of trends in age-differences in happiness by Witt et al (1979). This study showed that elderly Americans have become somewhat more happy relatively between 1950 and 1970.

Policy-evaluation

Happiness data is also used to assess policy effects; in particular for evaluating attempts to improve quality-of-life. Effects of interventions can be measured by changes in happiness before and after, or by differences in happiness between beneficiaries and non-beneficiaries. This success criterion is commonly applied in the evaluation of policies concerning the aged; for instance in assessing the benefits of separate housing (Hinrichsen, 1985) and judging the usefulness of activation programs (Ray et al 1983).

Identification of conditions for a good life

The most interesting use of empirical happiness research is the validation of ideas about conditions for the *good life*, and related ideas about the *good society*. Ideas on this matter may be erroneous. For instance, people may derive less happiness from `proper' housing than most politicians think. If so, people in good houses must appear to be about as happy as - otherwise comparable people - in poor houses. Happiness must also remain unaffected by moves from good to shoddy housing, and vice versa. Such checks are vital for any policy that seriously tries to surpass ideological prepossession and vested interests. A notable study of this kind is "The market experience" by Lane (1991), which tries to evaluate Western economic order by its effects on happiness.

1.3 Key literature

The first survey studies that involved measures of happiness were performed in the USA in the 1960's. The aim was to chart mental health. Major books were published by Gurin et al (1960) and Bradburn (1969). At that time happiness was also a topic in an innovating cross-national study on human `concerns' by Cantril (1965).

In the 1970's happiness was central in several American Social Indicator studies. Land mark books were published by Campbell et al (1976) and Andrews & Withey (1976). The theme was studied in other countries as well; in the Nordic countries by Allardt (1976) and in Germany by Glatzer & Zapf (1984). In the 1980's a first large-scale longitudinal survey on happiness was performed in Australia by Heady and Wearing (1992).

Review studies have been published by Veenhoven (1984), Argyle (1987) and Meyers (1992). Recently a bibliography has appeared, which includes 2475 contemporary studies on subjective appreciation of life (Veenhoven 1993a). This bibliography is part of the `World Database of Happiness,' which also involves ongoing catalogues on observed distribution of happiness in nations and on correlates of happiness.

1.4 Questions on happiness

The literature on happiness can be framed within some key-questions. These questions can be ordered as steps in the rational process, the Utilitarians had in mind, for creating greater happiness for a greater number.

The prime question is then what happiness is precisely. One cannot raise happiness if one does not know what it is. A following question is whether that happiness can be measured. If not, attempts to make life more enjoyable will remain a matter of belief. Without a gauge we remain uncertain about both the necessity to intervene and about the effects of intervention.

Provided these two preliminary questions can be answered affirmatively, some substantive questions arise. One question is how happy people actually are. If everybody is very happy, there is little need to reach out for better. Another question is whether people are about equally happy or not. If people don't differ, there are no cues for conditions that may improve happiness.

If people appear not be equally happy, the next substantive question is why. Determinants of happiness can be searched for at two levels; external conditions and inner processes. If we can identify circumstances in which people tend to be happy, we could try to create such conditions for everybody. If we grasp mental processes, we can possibly teach people to take more pleasure from life. Both approaches have a long tradition.

A related substantive question is whether happiness can be raised lastingly. Two theories suggest it can not. One such theory is that happiness is relative. According to this theory improvement of living conditions raises happiness only temporary, because standards of comparison adjust. The other theory is that happiness is an immutable trait; people being chronically happy or unhappy, irrespective of their circumstances. In this view improvements in the quality of life will not yield greater appreciation of it. If these theories are true, there is little sense in trying to achieve greater happiness for a greater number. As such, they also imply that there little point in studying happiness any further.

Below I will provide a definition of happiness. On that basis I will take stock of the answers to the aforementioned questions. The questions will be considered at two levels; the individual level and the societal level.

2. CONCEPT OF HAPPINESS

Happiness is a state of mind. In common language the term is used for evanescent feelings as well as for stable appreciation of life. Here the term is used in the latter meaning only.

2.1 Definition

Happiness is 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.

Synonyms

The word `life-satisfaction' denotes the same meaning and is often used interchangeably with 'happiness'. An advantage of the term life-satisfaction over the word `happiness' is that it emphasizes the subjective character of the concept. The word happiness is also used to refer to the objective good; especially by philosophers. Talking about 'subjective happiness' avoids such misunderstanding.

An other current synonym is `subjective well-being'. Though this phrase makes clear that it is the subject who makes the appraisal, it is not so clear what the subject appraises. The term is not only used for satisfaction with life-as-a-whole, but also for specific discomforts and passing moods.

Scope of evaluation

The concept of happiness denotes an *overall* evaluation of life. So 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.

The object of evaluation is *life-as-a-whole*, not a specific domain of life, such as work-life. Enjoyment of work will add to the appreciation of life, but does not constitute it.

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. Momentaneous affect may influence the perception of life-experiences and the global judgement of life, but it is not synonymous with happiness as defined here.

2.2 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 judgement 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 judgements 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. MEASUREMENT OF HAPPINESS

In the 1960's, happiness became a common topic in survey research. That development was accompanied by a sharp discussion about the validity of survey questions about the matter. It was doubted that happiness can be measured at all by means of standard interviews or questionnaires.

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. Though some social behaviors tend to be more frequent among the happy (active, outgoing, friendly), such conduct is also observed among unhappy persons. Likewise, non-verbal behaviors such as frequent smiling or enthusiastic movements appear to be only modestly related to self-reports of happiness. Consequently, estimates of someone's happiness by his peers are often wrong. 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. Such questions 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. Some common questions are presented in **scheme 1**.

The most common practice is single direct questions in the context of survey interviews. However, the validity and reliability of such simple self-reports is doubted. Elsewhere I have considered the objections and inspected the empirical evidence for claims about bias. I will summarize the main points below. For more detail and references, see Veenhoven 1984 chapter 3.

3.1 Validity doubts

Critics have suggested that responses to questions on life-satisfaction 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 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 more happy 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.

3.2 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 judgement from memory. For the most part, memory only indicates a range of happiness. Typically, the matter is re-assessed in an instant judgement. 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 judgements, 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 heuristical effects have been demonstrated by Schwarz and Strack (1991).

Bias in response

Once a respondent has formed a private judgement, the next step is to communicate it. At this stage reports can be biassed 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 multipletrait-multiplemethod (MTMM) studies, and correlations can be corrected (disattunuated) on that basis. A first application on satisfaction measures is reported by Saris et all (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 biassed in the same way (correlated error). To some extend, systematic error can also be estimated and corrected. See also Saris et al.

3.3 Comparability across nations

Average happiness differs markedly across nations. In **scheme 2** 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 1993b). 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 rankorders 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 rankorders 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. See **scheme 2**.

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 more gloomy outlook-on-life, rather than as a result of an inferior quality-of-life. This latter matter will be discussed in the last section of this paper.

4. PATTERN OF HAPPINESS

Assuming for the moment that happiness is fairly well measurable, 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.

4.1 Level of happiness

Throughout time, social critics have bemoaned the miseries of life. Man is said to be basically unhappy, and real happiness is projected in past paradise or future utopia. Such bilious claims have always been denounced by optimists, who stressed human adaptability and social progress. 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. These surveys 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 really 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' judgement 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 lest few weeks than to admit disappointment in life. Various surveys have assessed both general happiness and last weeks 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 fairly 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 to some extent contribute to happiness in the long run. Only through realistic acknowledgement of smart and danger can we cope effectively with the problems of life.

4.2 Differences in happiness

Though most people enjoy their life, not everybody is equally happy. There are sizable differences between individual citizens within countries, as well as disparities in average happiness between countries. See **scheme 2**.

Individual differences

In all countries there are citizens who are happy and unhappy. Though distributions vary, the full range between extremely satisfied and extremely dissatisfied can be found everywhere. **Scheme 2** shows that even in affluent nations, such as Sweden and the USA, some 1% of the population marks the most negative scale category. In the most desperate case (Russia) still 6% report maximal happiness.

Differences in happiness between citizens of a country result partly from dissimilarity in life-chances and partly from variation in ability to cope. We will consider this matter in more detail in the section on determinants of happiness.

Nation differences

Scheme 2 also shows that the pattern of happiness is not the same everywhere. Both

level and dispersion differ considerably across nations. In this collection, averages vary between 5.4 and 7.8, and standard-deviations between 1,7 and 2.4. In greater datasets even more sizable differences are observed. Other questions on happiness show identical patterns of cross-national differences (Veenhoven 1993b).

Differences in average happiness in countries are largely a matter of variation in livability. Below we will see that 63% of these differences can be explained by variation in societal qualities.

The differences in dispersion of happiness are also related to societal characteristics, in particular to social equality. The background of these differences will not be discussed in this chapter. The interested reader can find more information in Veenhoven (1990, 1995).

5. 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 determinants.

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-model.
The model presumes that the judgement 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 migration, as well as repetitious mundane events, like getting up in the morning and doing the dishes.

The events which happen in life are partly a matter of good or bad luck; such as in the case of accidents. The occurrence 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 chance 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 persons will run into a lot of adverse events. He/she will be robbed, duped, humiliated and excluded (step 2). As a result that person will frequently feel anxious, angry and lonely (step 3). On the basis of 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 judgement. 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 interpretation.

5.1 Life-chances

Research on happiness has focussed almost exclusively on its relation to life-chances. As most studies are instigated by social policy, the main ambition is to identify conditions that predispose to a positive appreciation of life. The bulk of the studies is at the individual level, and tries to sort out attributes that are characteristic for the most happy people in a country. Elsewhere I have reviewed that literature (Veenhoven 1984, 1994a). Next to this mainstream of individual level studies there are now also some studies at the macro level, which link average happiness to characteristics of the nation.

Below I will begin at the macro level, and report an analysis on the biggest nationset that is currently available. Next I will summarize the main results of the many micro level studies: first the correlates between individual happiness and social position, and then the relationship between happiness and psychological characteristics.

5.1.1 Quality of society

As shown in **scheme 2**, average happiness differs greatly across nations. We have seen earlier that differences can not 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.

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 a similar pattern emerge if we consider further indicators of modernity, such as urbanization, industrialization, informatization and individualization. The more modern the country, the happier its citizens.

This finding will be a surprise to prophets of doom, who associate modernity with anomy and alienation. Though modernization may involve problems indeed, its benefits are clearly greater.

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.

An other problem is the lack of time-series. This hinders the distinction between cause and effects. Most of the correlations in **scheme 4** 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 1993b).

5.1.2 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 not less satisfying in old age; not even in very old age.

Gender The happiness of males and females does not differ very much either. In some countries males are slightly happier, in others females. At this point it still hasn't 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. See **scheme 5**. 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'.

5.1.3 Individual characteristics

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 tend 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'.

Ability
Curiously, happiness tends to be unrelated to 'intelligence'; at least to schoolintelligence 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.

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 actual fact, both effects are involved. Veenhoven 1989b.) This problem can be solved by considering longitudinal data. 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 is becoming available.

The data needed for solving these problems is gathered in the previously mentioned World Database of Happiness (note 3).

5.2 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 of all, this study showed that the course of life-events is not the same for everybody. Some people find troubles over and over again; they have accidents, get 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 more happy.

5.3 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, it is the life-events that 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. On the basis of 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 psycho-physiology 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 1956, 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

Where ever 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. So, 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 mono-zygotic 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 does 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 1994b.)

5.4 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 judgement is then a bottom-up process, in which appraisals of various aspects of life are combined into an overall judgement.

In this line, Andrews & Withey (1976) suggested that satisfaction with life-as-a-whole is calculated on the basis of 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 can't 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)

Differences in evaluating life-as-a-whole and life-domains

The evaluation-process is not identical for all objects. Global estimates are the rule in evaluations of life-as-a-whole, and piecemeal calculations most common in life-aspect evaluations.

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 fairly 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 judgement. 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. An other 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. The differences in valuational strategies are depicted in **scheme 6**.

As noted above, Andrews & Withey thought that satisfaction with life-as-a-whole is `calculated' from satisfactions with specific life-domains, by way of some weighted average. We can now conclude that this view is not correct. Not only did the presumed weighing fail to appear in better prediction of overall satisfaction with weighted domain-satisfactions than with unweighted ones, but also have we seen that

evaluations of life-as-a-whole typically follow the left hand route in **scheme 6** rather than the right hand route. Though some people may sometimes strike the balance of their life in this calculative way, it is certainly not the typical approach.

6. 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.

6.1 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; neither at 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 upwards 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 paralysed accident victims.

Elsewhere I have exposed these sensational claims (Veenhoven 1991). Happiness appears not to be is not the same in poor and rich nations (see also **scheme 2** and **4**) 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 don't 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 to be 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. As we have seen in **scheme 5** 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 (the route on the right in **scheme 6**), rather than a global inference on the basis of general affect (the route on the left in **scheme 6**).

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 any and 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 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.

As argued above, the evaluation of specific life-domains tends to follow the right hand route in **scheme 6**. However, the evaluation of life-as-a-whole typically follows the left-hand route. Therefore, the theory does not apply to overall life-satisfaction.

6.2 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 3**) as well as the overall evaluation of life (step 4). In this view, improvement of living conditions will not result in greater happiness. The valuative 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 1994b, 1995). I inspected whether happiness is 1) temporally stable, 2) cross-situationally consistent and 3) innerly 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 life-time. 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 sequela 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. France is often mentioned as an example of the former kind, and the USA as an example of the latter. In this view, there is also little perspective greater happiness for a greater number. Even if the quality of life in France would be improved substantially, French misanthropy would prevent the French from taking more pleasure in life. Elsewhere I have examined the empirical evidence for this theory (Veenhoven 1993b:ch5, 1994b, 1995).

I first inspected whether the differences in average happiness in nations are indeed unrelated to variation in objective quality of living-conditions in these nation. As we have seen in **scheme 4**, that is not the case. People are clearly happier in the nations that are most affluent, safe, free, equal and tolerant. Together, these societal qualities explained no less than 63% of the variation in average happiness! Improvements in these societal conditions tend to be followed by a raise in average happiness. This is for instance visible in the rising happiness in Western-Europe after World War II. (Not all improvements bear greater happiness however: as we have seen economic growth adds to happiness in poor countries, but not in rich ones.)

Next I regressed subjective happiness on objective livability of nations and considered the residuals. If French misanthropy reduces happiness, the French must report less happiness than their level of living would predict. In the regression chart France must be situated below the regression line. Likewise we can expect the USA to be situated above that line. No such patterns appeared however.

Lastly, I considered the happiness of migrants. I compared their appreciation of life with both average happiness in the country-of-settlement and with happiness in their country-of-origin. If happiness reflects the quality of the conditions one lives in, the happiness of migrants in a country must be close to the level of autochthons. If however, happiness is a matter of socialized outlook, the happiness of migrants must be closer to the level in their motherland. First generation migrants in two nations were considered: In Australia, migrants from Britain, Greece, Ireland, Italy, Netherlands and Yougo-Slavia. In Germany, migrants from Greece, Italy, Spain, Turkey and Yougo-Slavia. Trait-theory failed this test as well.

Together these findings unequivocally deconstruct the argument that happiness is too static a phenomenon to be changed.

7. CONCLUSION

Happiness can be defined as subjective enjoyment of life-as-a-whole. In that sense, happiness is not an elusive concept. Conceptually it can be well distinguished from related matters and the phenomenon is well measurable. Empirical studies on happiness show considerable differences; both differences in average happiness across countries and differences between citizens within countries. Much of these differences

can be grasped by now, and fuller comprehension seems in reach. 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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Scheme 1
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?
  (item used in the World Value Studies, see a.o. Harding 1986)

* How satisfied are you with the life you lead? Very satisfied, fairly satisfied, not very satisfied, not at all satisfied?
  (standard item in Eurobarometer surveys, see a.o. Inglehart 1990)

* 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)

* How do you feel about your life-as-a-whole? Delighted, pleased, mostly satisfying, mixed, mostly dissatisfying, unhappy, terrible?
  (Andrews & Withey's (1976) Delighted-Terrible scale)

Multiple questions (summed)

* Two identical questions (Andrews & Withey's Life 3)
  - How do you feel about your life-as-a-whole? (asked at beginning of interview)
  - How do you feel about your life-as-a-whole? (same question asked again at end of interview)

* Five questions, rated on a 1-7 scale ranging from strongly agree to strongly disagree.
  (Diener's 1985 Satisfaction With Life Scale SWLS [i])
  - 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.

scheme 2
Life-satisfaction in 10 nations early 1990's

Nation	**response categories**											**Mean**	**SD**
	satisfied										*dissatisfied*		
	10	*9*	*8*	*7*	*6*	*5*	*4*	*3*	*2*	*1*	*NA*		
Brazil	28	9	17	13	7	15	4	3	1	3	0.4	7,37	2,41
Britain	18	13	26	19	9	9	3	2	1	1	0,6	7,49	1,94
Canada	17	24	27	16	6	6	2	2	0	1	0.1	7,89	1,74
France	8	11	21	18	13	18	4	3	1	1	0,9	6,78	1,98
India	15	9	17	13	13	20	5	5	2	2	1,6	6,70	2,28
Japan	3	6	23	19	21	13	6	4	1	1	4,0	6,53	1,75
Nigeria	17	12	13	13	13	11	7	6	3	5	0,4	6,59	2,62
Russia	6	4	11	10	12	23	10	11	4	8	2,6	5,38	2,40
Sweden	21	19	30	14	5	6	2	1	0	0	0,2	7,97	1,74
USA	16	21	27	15	7	8	3	2	1	1	0,3	7,73	1,83

scheme 3
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...	Confrontation with:	Experiences of:	Appraisal of average affect

Personal resources
* **social position**
  * material property
  * political influence
  * social prestige
  * family bonds
  * etc...
	* deficit or affluence
	* attack or protection
	* solitude or company
	* humiliation or honor
	* routine or challenge
	* ugliness or beauty
	* etc...
		* yearning or satiation
		* anxiety or safety
		* loneliness or love
		* rejection or respect
		* dullness or excitement
		* repulsion or rapture
		* etc...
			Comparison with standards of the good life
			
			Striking an overall balance

* **individual abilities**
  * physical fitness
  * psychic fortitude
  * social capability
  * intellectual skill
  * etc...			

conditions for life-satisfaction		appraisal process	

Scheme 4
Correlates of average happiness in nations
48 nations 1990

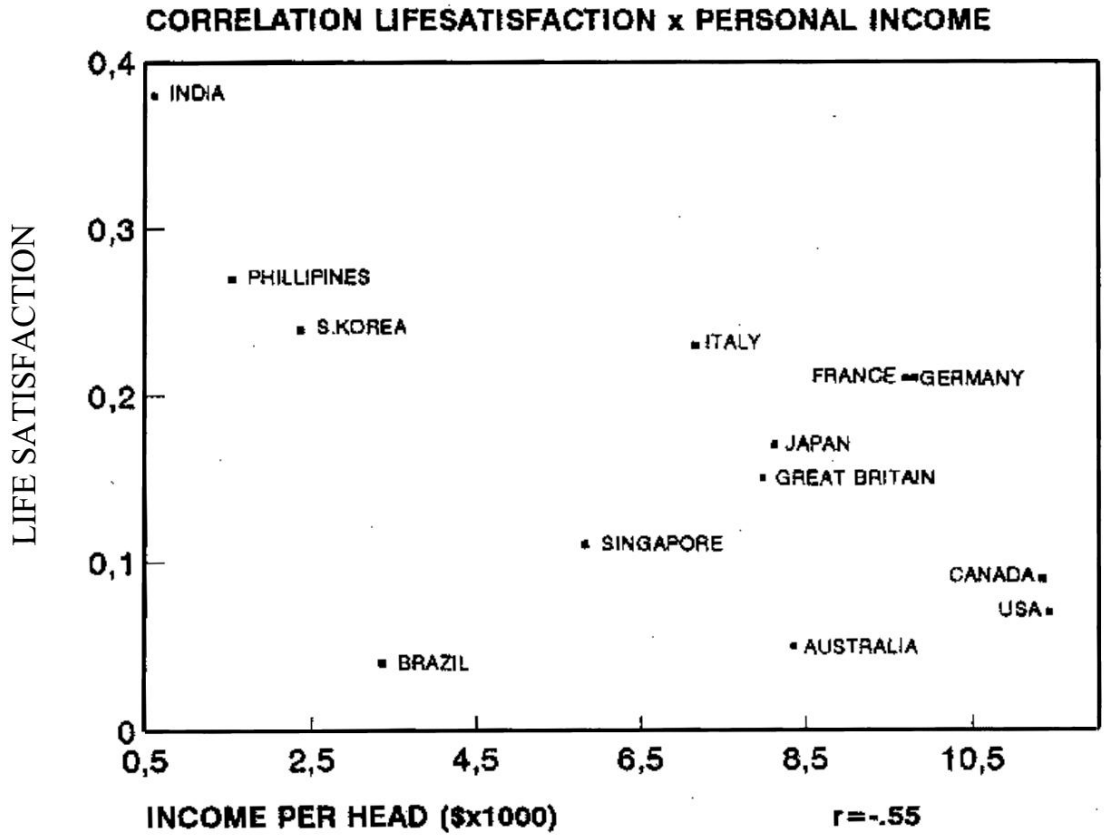
nation characteristics	***correlation with happiness***		***N***
	zero order	*affluence controlled*	
Material affluence			
Income per head: purchasing power 1989[ii]	+.64**	---	43
Incidence of absolute poverty:			
* malnutrition: % < 2500 calories[iii]	—.16	+.12	42
* % without safe water[iv]	—.35	+.24	38
Security			
Physical safety[v]			
* murder rate	—.39**	—.17	39
* lethal accidents	—.67**	—.49**	39
Legal security: incidence of corruption[vi]	—.73**	—.50*	37
Social security: state expenditures in % GDP[vii]	+.38	—.03	34
Freedom			
Political freedom[viii]			
* respect of political rights	+.35*	+.34	47
* respect of civil rights	+.41*	+.34	47
Personal freedom			
* freedom of marriage: acceptance divorce[ix]	+.18	+.02	42
* freedom of procreation:			
* abortion available[x]	+.13	—.12	37
* sterilization available[xi]	+.18	+.27	34
* freedom of sexuality[xii]:			
* acceptance of homosexuality	+.62**	+.20	42
* acceptance of prostitution+.35	—.10	42	
* freedom to dispose of own life[xiii]:			
* acceptance suicide	+.29	+.03	42
* acceptance of euthanasia	+.28	—.01	40
Self-perceived freedom[xiv]:			
* in life	+.50**	+.24	42
* at work	+.74**	+.47*	41
Social equality			
Income-inequality: ratio lowest to highest 20%[xv]	—.11	+.07	28
Gender-equality: woman empowerment index[xvi]	+.51**	+.07	35
Class-inequality: educational homogamy[xvii]	—.52*	—.58*	27
Cultural climate			
Education			
* % literate[xviii]	+.19	—.11	47

scheme 4 continued

* school enrolment ratio[xix]	+.51**	+.26	36
* average years in school[xx]	—.07	—.06	40
Information[xxi]			
* newspapers pc	+.36*	—.07	32
* TV receivers pc	+.39**	—.23	42
Religion[xxii]			
* belief in God	+.38*	+.40*	37
* religious identification	+.24	+.20	41
* religious participation	+.15	+.28	38
Value orientation: Hofstede dimensions[xxiii]			
* individualism	+.69**	+.04	32
* power distance	—.50**	—.05	32
* masculinity	—.20	—.15	32
* uncertainty avoidance	—.53**	—.30	32
Social climate			
Tolerance			
* absence of prejudice[xxiv]	+.58**	+.01	38
Trust[xxv]			
* trust in people:			
* in family	+.26	+.07	30
* in compatriots	+.02	+.10	40
* trust in institutions	+.26	+.41	30
Social participation			
* in work: unemployment[xxvi]	+.42**	+.34*	42
* in voluntary associations: memberships[xxvii]	+.52**	+.28	34
Peacefulness[xxviii]			
* military dominance: soldier/civilian ratio	—.38*	—.46*	41
* military expenditure in % GDP	—.25	—.26	41
Population pressure[xxix]			
Population density: persons per km^2	+.01	+.00	42
Population growth: population doubling time	+.06	—.13	39
Modernity			
Urbanization: % urban population[xxx]	+.48**	+.28	40
Industrialization: non-agricultural share GDP[xxxi]	+.49**	+.03	32
Informatization: telephones pc[xxxii]	+.64**	+.32	42
Individualization: expert rating[xxxiii]	+.55**	+.21	39

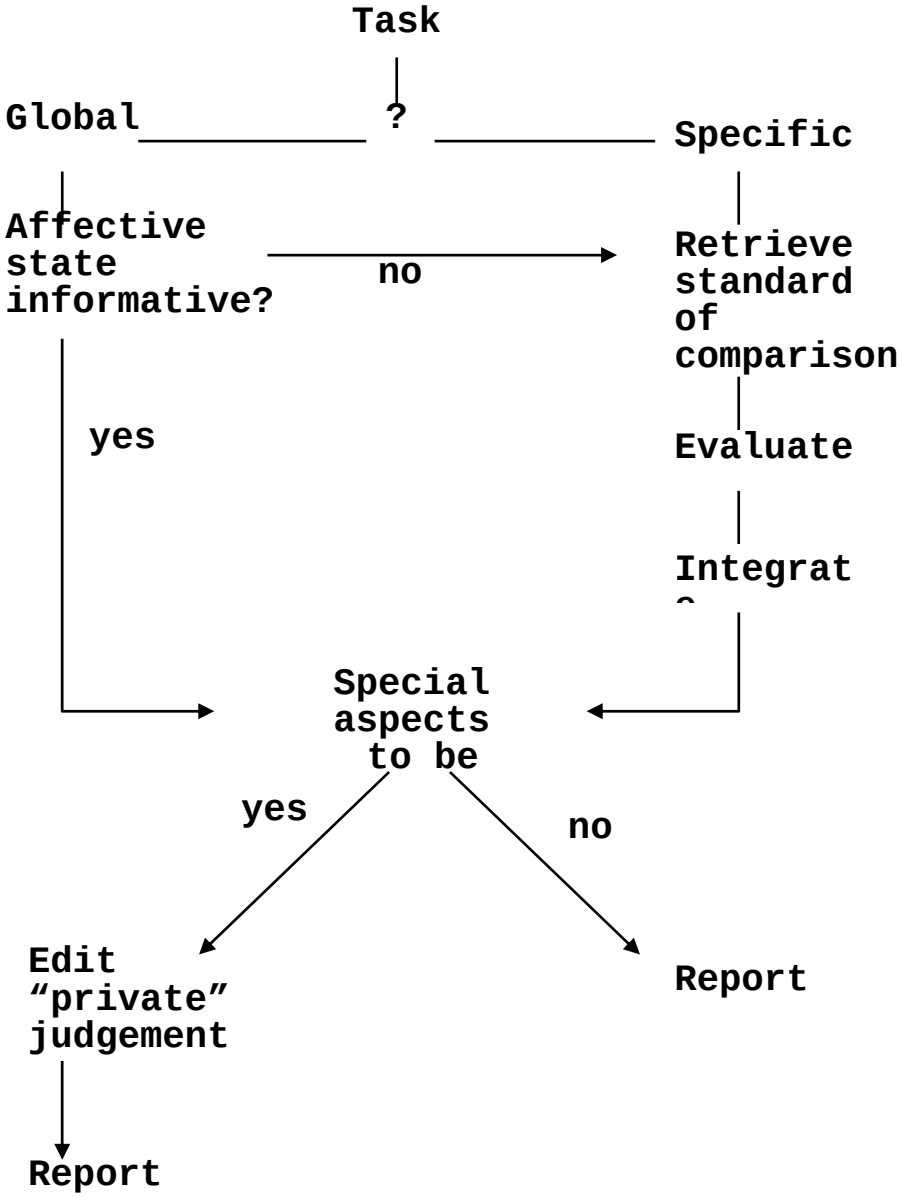
Scheme 5

Life-satisfaction and income-position in 13 nations varying in wealth



Source: World Database of Happiness, Catalogue of Correlates (Veenhoven 1994a)

Scheme 6
Model of life-evaluation



Source: Schwarz & Strack 1991:43.

Appendix
Happiness in 48 nations early 1990's

Nation		**Average appreciation of life**		
code	*name*	*Happiness*	*Life-satisfaction*	*Affect Balance*
RA	Argentina*	6,90	6,95	6,26
AUS	Australia	7,67	7,90	7,04
A	Austria	7,33	6,13	6,77
WY	Belarus (White Russia)	4,87	5,02	5,77
B	Belgium	7,70	7,39	6,57
BR	Brazil	6,47	7,10	6,18
GB	Britain	7,60	7,19	6,71
BG	Bulgaria	4,43	4,48	-
CND	Canada	6,83	7,65	7,31
RCH	Chile*	6,78	7,28	6,03
CN	China*	6,40	6,72	6,28
CZ	Czecho-Slovakia (former)	5,57	5,89	5,67
DK	Denmark	7,87	7,96	6,93
EW	Estonia	5,27	5,55	5,77
SF	Finland	6,97	7,42	6,18
F	France	7,20	6,43	6,33
D	Germany (former West-)	6,80	6,91	6,47
DDR	Germany (former East-)	6,53	6,35	5,94
G	Greece	5,90	5,60	-
H	Hungary	5,73	5,59	5,86
IS	Iceland	7,93	7,79	7,53
IND	India*	6,03	5,80	5,33
IRL	Ireland	7,87	7,64	7,03
IL	Israel	6,27	-	-
I	Italy	6,60	6,69	6,24
J	Japan	6,66	6,13	5,26
LR	Latvia	5,08	5,23	5,92
LT	Lithuania	4,97	5,57	5,60
L	Luxembourg	7,27	7,60	-
MEX	Mexico	6.50	7,12	6,58
NI	Northern Ireland	7,63	7,65	6,72
NZ	New Zealand	7,22	-	-
NL	Netherlands	7,97	7,60	6,87

Happiness in 48 nations early 1990's continued

Nation		**Average appreciation of life**		
code	*name*	*Happiness*	*Life-satisfaction*	*Affect Balance*
WAN	Nigeria	6,43	6,02	6,54
N	Norway	7,43	7,43	7,31
RP	Philippines	6,93	-	-
PL	Poland	6,57	6,27	6,46
P	Portugal	6,10	6,76	6,36
RO	Romania	5,43	5,42	5,71
SU	Russia	5,10	4,51	5,33
ZA	South Africa	6,07	6,01	6,21
ROK	South Korea	6,20	6,32	-
SLO	Slovenia	5,40	5,88	6,53
SP	Spain	6,80	6,82	5,73
S	Sweden	7,87	7,75	7,90
CH	Switzerland	7,67	8,21	-
TR	Turkey*	6,93	6,01	5,60
US	United States of America	7,60	7,46	7,23

Data from World Database of Happiness (update 1996), tables 1.1.1a and 1.1.1b. Most of the data from World Value Study 2. Scores transformed to scale 0-10

* Probably too high. Score based on samples in which poor rural population was under-representated

NOTES

i. I 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.

ii. UN Human Development Report 1992, table 1. Missing values estimated: Northern Ireland between Great Britain and Ireland ($ 10,600), Czecho-Slovakia average of neighboring East European nations ($ 7,420).

iii. Kurian 1992, table 192. The minimally required amount of daily categories is about 2500. In this dataset only four countries score below that level: India, China, Nigeria and the Philippines.

iv. Kurian 1992, table 194. Data 1980. Some scores seem implausible (Finland 84%, Spain 78%, Hungary 44%)

v. Medical registration. UN Demographic Yearbook 1993, table 21.

vi. Polls among business men and journalists. Transparency International 1995.

vii. ILO 1996, table 3

viii. Expert ratings. Karantnycky et al 1995.

ix. Public opinion. Item 310 in World Value Survey 2.

x. Expert rating of restrictive policies. PAI 1995.

xi. Expert rating of limitations and services, IPPF 1995.

xii. Public opinion. Survey items 307 and 308 in World Values Survey 2.

xiii. Public opinion. Items 312 and 313 in World Values Survey 2.

xiv. Public opinion. Items 95 and 117 in World Values Survey 2.

xv. UN Human Development Report 1995, table 12.

xvi. UN Human Development Report 1995, table 3.5.

xvii. Smits et al 1996: 48

xviii. World Bank, World Development Report, 1995, table 1.

xix. World bank, World Development Report 1995, table 3.1.

xx. Average self estimates. Item 356 in World Values survey 2.

xxi. Kurian 1992, tables 218 and 214.

xxii. Average self reports. Items 175, 151 and 147 in World Values Survey 2.

xxiii. Opinions IBM employees. Hofstede 1990

xxiv. Public opinion. Items 69-82 in World Vlues Survey 2.

xxv. Public opinion. Items 272-285, 340 and 341 in World Vlues Survey 2.

xxvi. Labor force surveys and registrations. ILO 1995, table 9.

xxvii. Average self reports. Item 23 in World values Survey 2.

xxviii. Kurian 1992, tables 41 and 43.

xxix. Kurian 1992, tables 17 and 28.

xxx. Kurian 1992, table 18.

xxxi. Kurian 1992, table 84.

xxxii. Kurian 1992, table 167 .

xxxiii. Diener et al 1994, table 1.