

Paper presented at the dialogue on 'Gross National Happiness', Woudschoten, Zeist, The Netherlands, January 14-15 2001

WHAT WE KNOW ABOUT HAPPINESS

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Summary

One of the goals of developmental policy is to create greater happiness for a greater number. Realization of that 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? This paper takes stock of the available answers and links these to the Bhutanese ambition of promoting 'Gross 'National Happiness'.

INTRODUCTION

Happiness is an important value. In some philosophies, it is even the ultimate value. For instance, the 19th century Scottish school of 'utilitarian' philosophy claimed that the moral value of all action should be judged by its effect on "the greatest happiness for the greatest number". In present day Bhutan, the official policy goal is promotion of the "Gross National Happiness". Putting this principle to practice requires understanding of happiness, in particular what it is and how it can be improved.

Contemporary 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 breakthrough. 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 by such things 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 on happiness

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 the other questions and explore their implications for Bhutan.

§ 1 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' (§ 1.1) and next specify what kind of subjective enjoyment is meant (§ 1.2). On that basis, I will provide a definition (§ 1.3). Finally I compare the concept with the Bhutanese notion of 'Gross National Happiness' (§ 1.4).

§ 1.1 Happiness and other qualities of life

Any statement about quality of life involves a judgement. 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 'public wellbeing' or the 'happiness of the nation' 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.

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'² 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 **exhibit 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.

Exhibit 1
Four qualities of life

	<i>Outer qualities</i>	<i>Inner qualities</i>
Life chances	Livability of environment	Life-ability of the person
Life results	Utility of life	<u>Enjoyment of life</u>

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 to denote this specific meaning, especially by doctors and psychologists. 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 ³, 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 ⁴. Be aware that this external utility does not require inner awareness. A person's life may be useful from some viewpoints, without them knowing ⁵.

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 § 5.

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.

§ 1.2 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.

Exhibit 2
Difference with other subjective enjoyments

	<i>Passing</i>	<i>Enduring</i>
Life aspects	Instant satisfactions (instant utility)	Domain-satisfactions
Life as a whole	Top experience	<u>Life-satisfaction</u> (happiness)

Four enjoyments of life

When combined, these distinctions produce the fourfold classification presented in **exhibit 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.

§ 1.3 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 judgement 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 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'.

§ 1.4 Likeness with the Bhutanese notion of 'Gross national Happiness'

The concept of 'Gross National Happiness' (GNH) was introduced in the political discourse in the late 1960s by the late king of Bhutan, Jigme Dorji Wangchuck. In 1971 the idea was articulated by the present King Jigme Singye Wangchuck in his famous statement that "Gross national Happiness is more important than Gross national Product" (Priesner 1999: 28). In 1991 the idea was mentioned in the Five Year Plan (7th 5-year plan pp 22) and in 1998 the idea was elaborated in an international address by the Prime Minister (Thingley 1998). Clearly, these statements did not aim at scientific precision in the first place, but served to indicate a political direction. Still, the statements are fairly specific about what happiness is meant.

First of all it is clear that happiness is seen as a state of an individual and not as a state of society. The goal is to promote the happiness of citizens, and the development of society is one of the means (Thingley 1998: 14-15). Secondly, the statements refer to happiness as a subjective enjoyment of life. The term is used interchangeably with 'good mood' and 'contentment'. The first official document speaks about the emotional wellbeing of the population (7th 5-year plan pp 22). Thirdly, happiness as such is distinguished from its presumed determinants, such as 'material wealth', 'Enlightenment education', 'natural environment' and 'good governance' (Thingley 1998 15-22). This all means that the Bhutanese concept of happiness fits the right-bottom quadrant in [exhibit 1](#).

The statements make also clear that happiness is seen as an enduring state of mind, and not as a passing mood. The aim is obviously not at creating short-lived thrills. Further the statements indicate that happiness is seen as an appraisal of life-as-a-whole rather than as satisfaction with a particular domain of life. So the Bhutanese notion of happiness fits also the right-bottom quadrant of [exhibit 2](#). Possibly, it denotes a somewhat specific Bhutanese variant in that context, by focussing on serene contentment in the first place.

§ 2 MEASUREMENT OF HAPPINESS

In Bhutane statements about GNH it is commonly assumed that happiness cannot be quantified and compared across time and nations like GNP. Yet happiness can be measured by asking citizens how much they enjoy life. In fact, happiness became a common topic in survey research since the 1960's. That development was accompanied by a sharp discussion about the validity of survey questions. It was doubted that happiness could 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.

§ 2.1 Survey questions on happiness

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. A common survey question is:

- *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)*

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.

§ 2.2 Validity

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 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 ($\pm 1\%$) 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 being 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 psychosomatic 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 headaches and worries among the happy does not prove response distortion. Life can be a sore trial some times, but still be satisfying on a balance.

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

§ 2.3 Reliability

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.

Much of these biases are random, and balance out in large samples. Therefore, in large samples, random error does not affect the accuracy of happiness averages. Yet it does affect correlations, random error 'attenuates' correlations. Random error can be estimated by means of multiple-trait-multiple-method (MTMM) studies, and correlations can be corrected (disattenuated) on that basis.

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

§ 2.4 Comparability across nations

Average happiness differs markedly across nations. In [exhibit 3](#), 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 rankorder 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 rankorder 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, collectivist 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 [exhibit 3](#) ⁶.

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.

§ 3 PREVALENCE OF HAPPINESS

Assuming for the moment that happiness is 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.

§ 3.1 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. 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 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 last 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 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.

§ 3.2 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 [exhibit 3](#).

Individual differences

In all countries, citizens are happy and unhappy. Though distributions vary, the full range between extremely satisfied and extremely dissatisfied can be found everywhere. [Exhibit 3](#) 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.

Nation differences

[Exhibit 3](#) 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, differences that are even more sizable are observed. Other questions on happiness show identical patterns of cross-national differences (Veenhoven 1993b). As yet the happiness has not been assessed in Bhutan.

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 paper. The interested reader can find more information in Veenhoven (1990, 1995).

Exhibit 3
Life-satisfaction in 10 nations early 1990's

Nation	response categories											Mean	SD
	<i>satisfied</i>						<i>dissatisfied</i>						
	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

§ 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 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. **Exhibit 4** presents a tentative ordering of factors and processes in a sequence-model ⁷.

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 migrations, as well as repetitious mundane events, like getting up in the morning and doing the dishes.

The events that happen in life are partly a matter of good or bad luck, such as in the case of accidents. The occurrences of life-events also depend on given conditions and capacities. Traffic accidents are less frequent in well-organized societies and among attentive persons. Thus, the chances of 'rewarding' and 'aversive' events are not the same for everybody. This is commonly referred to as *life-chances* ⁸. 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 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 interpretations.

exhibit 4
Evaluation of life; a sequence model of conditions and processes

LIFE-CHANCES ----->	COURSE OF EVENTS -->	FLOW OF EXPERIENCE --->	EVALUATION OF LIFE
<p>Livability of environment</p> <ul style="list-style-type: none"> ▪ <i>Quality of society</i> <ul style="list-style-type: none"> - economic welfare - social equality - political freedom - etc... ▪ <i>Position in society</i> <ul style="list-style-type: none"> - material property - political influence - social prestige - etc... <p>Life ability of the individual</p> <ul style="list-style-type: none"> ▪ Physical fitness ▪ Psychic fortitude ▪ Social capability ▪ Intellectual skill ▪ Art of living ▪ Etc... 	<p>Confrontation with:</p> <ul style="list-style-type: none"> ▪ deficit or affluence ▪ attack or protection ▪ solitude or company ▪ humiliation or honor ▪ routine or challenge ▪ ugliness or beauty ▪ etc... 	<p>Experiences of:</p> <ul style="list-style-type: none"> ▪ yearning or satiation ▪ anxiety or safety ▪ loneliness or love ▪ rejection or respect ▪ dullness or excitement ▪ repulsion or rapture ▪ etc... 	<p>Appraisal of average affect</p> <p>Comparison with standards of the good life</p> <p>Striking an overall balance</p>
Conditions for life-satisfaction		appraisal process	

§ 4.1 Livability of the environment

Research on happiness has focussed almost exclusively on its relation to life-chances.

Quality of society

As shown in **exhibit 3**, 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. **Exhibit 5** presents many strong correlations between average happiness and societal qualities.

Material affluence

Above in **exhibit 5** 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 **exhibit 5**, 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 controlled⁹.

Freedom

People are also happier in the nations that allow most autonomy. In **exhibit 5** 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

Exhibit 5 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

Exhibit 5 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' rates¹⁰. 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 **exhibit 5**, 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, 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 anomie and alienation. Though modernization may involve problems indeed, its benefits are clearly greater.

Exhibit 5
Correlates of average happiness in nations 48 nations 1990

<i>Nation characteristics</i>	<i>correlation with happiness</i>		<i>N</i>
	<i>Zero order</i>	<i>affluence controlled</i>	
Material affluence			
Income per head: purchasing power 1989 ¹¹	+ .64**	---	43
Incidence of absolute poverty:			
* malnutrition: % < 2500 calories ¹²	-.16	+.12	42
* % without safe water ¹³	-.35	+.24	38
Security			
Physical safety ¹⁴			
* murder rate	-.39**	-.17	39
* lethal accidents	-.67**	-.49**	39
Legal security: incidence of corruption ¹⁵	-.73**	-.50*	37
Social security: state expenditures in % GDP ¹⁶	+.38	-.03	34
Freedom			
Political freedom ¹⁷			
* respect of political rights	+.35*	+.34	47
* respect of civil rights	+.41*	+.34	47
Personal freedom			
* freedom of marriage: acceptance divorce ¹⁸	+.18	+.02	42
* freedom of procreation:			
* abortion available ¹⁹	+.13	-.12	37
* sterilization available ²⁰	+.18	+.27	34
* freedom of sexuality ²¹ :			
* acceptance of homosexuality	+.62**	+.20	42
* acceptance of prostitution	+.35	-.10	42
* freedom to dispose of own life ²² :			
* acceptance suicide	+.29	+.03	42
* acceptance of euthanasia	+.28	-.01	40
Self-perceived freedom ²³ :			
* in life	+.50**	+.24	42
* at work	+.74**	+.47*	41
Social equality			
Income-inequality: ratio lowest to highest 20% ²⁴	-.11	+.07	28
Gender-equality: woman empowerment index ²⁵	+.51**	+.07	35
Class-inequality: educational homogeneity ²⁶	-.52*	-.58*	27
Cultural climate			
Education			
* % literate ²⁷	+.19	-.11	47
* school enrolment ratio ²⁸	+.51**	+.26	36
* average years in school ²⁹	-.07	-.06	40
Information ³⁰			

* newspapers pc	+.36*	— .07	32
* TV receivers pc	+.39**	— .23	42
Religion ³¹			
* belief in God	+.38*	+.40*	37
* religious identification	+.24	+.20	41
* religious participation	+.15	+.28	38
Value orientation: Hofstede dimensions ³²			
* individualism	+.69**	+.04	32
* power distance	— .50**	— .05	32
* masculinity	— .20	— .15	32
* uncertainty avoidance	— .53**	— .30	32
Social climate			
Tolerance			
* absence of prejudice ³³	+.58**	+.01	38
Trust ³⁴			
* trust in people:			
* in family	+.26	+.07	30
* in compatriots	+.02	+.10	40
* trust in institutions	+.26	+.41	30
Social participation			
* in work: unemployment ³⁵	+.42**	+.34*	42
* in voluntary associations: memberships ³⁶	+.52**	+.28	34
Peacefulness ³⁷			
* military dominance: soldier/civilian ratio	— .38*	— .46*	41
* military expenditure in % GDP	— .25	— .26	41
Population pressure ³⁸			
Population density: persons per km ²	+.01	+.00	42
Population growth: population doubling time	+.06	— .13	39
Modernity			
Urbanization: % urban population ³⁹	+.48**	+.28	40
Industrialization: non-agricultural share GDP ⁴⁰	+.49**	+.03	32
Informatization: telephones pc ⁴¹	+.64**	+.32	42
Individualization: expert rating ⁴²	+.55**	+.21	39

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.

An other problem is the lack of time-series. This hinders the distinction between cause and effects. Most of the correlations in **exhibit 5** 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).

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 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'.

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 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).

§ 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 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

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 be 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 1994b.)

§ 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 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 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).

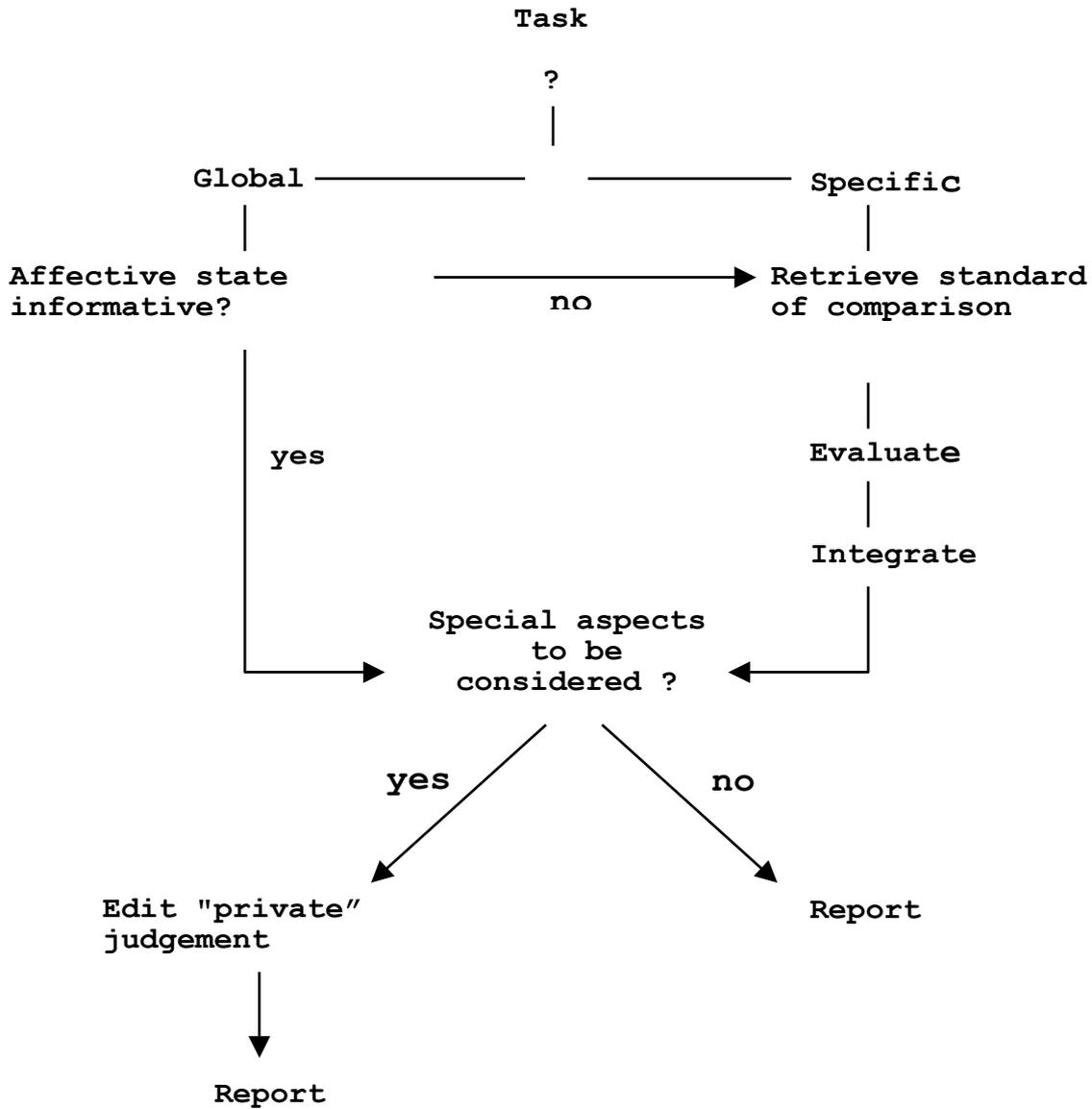
The available evidence suggests that internal affective cues are far more important than external social ones. Happiness is much more related to matters of mood than to reputation.

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)

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.

Exhibit 6
Model of life-evaluation



Source: Schwarz & Strack 1991:43.

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 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 valuation strategies are depicted in [exhibit 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 unweighed ones, but also have we seen that evaluations of life-as-a-whole typically follow the left hand route in [exhibit 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.

§ 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 piecemeal mental calculus (the route on the right in [exhibit 6](#)), rather than a global inference on the basis of general affect (the route on the left in [exhibit 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 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 [exhibit 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.

§ 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 [exhibit 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 1994b⁴³, 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 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. 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 nations. As we have seen in [exhibit 5](#), 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 Yugoslavia. In Germany, migrants from Greece, Italy, Spain, Turkey and Yugoslavia. Trait-theory failed this test as well.

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

§ 6 WILL BHUTAN'S POLICY RAISE HAPPINESS?

Publications on Gross National Happiness in Bhutan express a strong belief that the present developmental policy will create greater happiness for a greater number of citizens. This belief is based on the idea that this policy will allow Bhutan to reap major advantages of modernization, such as a decent material standard of living, while preserving its traditional strongpoints such as the pronounced cultural identity and the natural resources.

It is difficult to assess the reality value of this belief. It is difficult to predict how this policy will pan out and what its effects on happiness will be. Still, we can make some educated guesses. If we assume that that Bhutan will be successful in creating the envisioned conditions, we can at least say whether similar conditions have been promotive to happiness elsewhere. Below I present an illustrative example of such an analysis. It is based on a short account of the main policy goals in Bhutan, the so called 'Four Pillars'. For each of these aims make an educated guess about the effects on happiness, both on the short term and the long term. These guesses are based on observed effects on happiness of similar conditions in other countries. Since most of the data come from developed nations, the estimates about short term effects are highly speculative. The exploration is summarized in [exhibit 7](#)

Exhibit 7

Evidence based guesses about effects of policy on happiness in Bhutan

Major policy goals	Probable effects on happiness	
	<i>Short term</i>	<i>Long term</i>
Economic self-reliance (modest growth)	++	0
Good governance		
• Democracy	+	+
• Decentral rule	?	+
Cultural promotion		
• Buddhist attitude of mind	±?	±
• Communal virtues (collectivist values)	±	—
Environmental protection		
• Preservation of ecosystem	0	+
• Scenic beauty	0	0

The first 'pillar' in Bhutan's developmental policy is economic development, with the purpose

to provide all citizens a decent material standard of living. Above we have seen that economic affluence is strongly related to happiness, but that this relationship is subject to the law of diminishing returns. Since Bhutan is currently far below the bend-off point, we can expect that success in this goal will contribute strongly to happiness (++) . Yet in this effect will decline in the long run and disappear almost completely when the income per head rises above the level of about \$10,000 per head (0).

Political *democracy* is also likely to contribute to happiness. In table 5 we saw strong correlation between average happiness and 'political rights' in the country, which is largely independent of economic affluence. Political democracy seems particularly conducive to happiness when citizens are well educated. Contrary to the case of economic development, there is no pattern of diminishing returns. Hence the effects are probably positive both on the short term (+) and in the long run (+). There is no research on the effect of *local rule* on happiness in developing societies. So I note ? for the short term effects. Yet there is good evidence of positive effects in developed nations. For instance, a recent study in Switzerland showed greater happiness in the most referendum friendly cantons of that country (Frey & Stutzer 2000). So I note a plus (+) for the long term effects. Since local rule requires a tradition of decentralized democracy, possible costs at the short term are likely to pay in the long run.

In the realm of cultural promotion, a main goal is to encourage a Buddhist state of mind. It is difficult to assess the effects of happiness of that policy, both because there is no generally agreed definition of that attitude and because there is little research on the relation between happiness and philosophies of life, especially not in developing nations. For the short term one can imagine various effects, both positive and negative. Traditional Buddhist philosophy and practices were probably functional in the harsh conditions of agrarian society. Yet one can also imagine that the tendency to retreat from reality will discourage attempts to change life to the better. By lack of clear indications about the balance of effects this case remains undecided for the moment ($\pm?$). There is more basis for prediction of effects in developed society. In these conditions, Buddhist like attitudes do not seem conducive to happiness. Distant serenity is not characteristic for the most happy people in modern societies. Typical traits of the happy are rather 'involvement', 'perceived fate control', a high 'activity level' and a 'hedonistic' lifestyle. This suggest that continuation of traditional Buddhist attitudes in modern conditions will be detrimental to the happiness of the greatest number. Still this negative effect can be counterbalanced in several ways. Traditional Buddhism is likely to serve at least minorities in modern society, such as people who opt for more relaxed and contemplative lifestyles, and the present variation in Buddhism promises new adaptations. The rising interest in Buddhism in the West suggest this is the case indeed. Further we have seen that presence of organized religion is correlated to average happiness in modern society (**Exhibit 5**). My guess is that these effects will balance more or less in the long run (\pm).

The case of community values is better documented. On the short term, the effect is probably mixed. On the one hand these values are highly functional in traditional agrarian society and protect against social disorganization and anomie. On the other hand these values are often suffocating and drive many people out to the cities and abroad. Probably, these effects are about equally strong in transitional societies (\pm). Yet in modern societies the balance of effects is clearly negative. Average happiness is distinctly higher in modern nations where individualistic values prevail (Veenhoven 1999). Contrary to communitaristic belief, people appear to thrive better with the 'weak' social ties that are typical for advanced industrial societies than with the 'strong' ties that are typical for agrarian society. The reason is probably

that the modern pattern fits better to the preferences that evolved in hunter-gatherer society.

Lastly the aim of environmental preservation. This policy could affect happiness in various ways. It could prevent future ecological disaster and thereby preserve our very existence. In that view there is a positive effect in the long run, though not necessarily on the short term. Environmental protection can also add to happiness by its future effects on the economy, such as through and supply of clean water. These effects will also manifest in the long run. On the short term environmental degradation will probably not affect happiness very much, which is not to say that it would not instigate political protest.

Next to these indirect effects, one could also think of direct effects on happiness such as the enjoyment of scenic beauty. Biophilia theory holds that humans thrive better in natural environments than in cities. If true, that would imply that environmental protection promotes happiness both on the short term and in the long run. Though plausible, that theory did not meet much empirical support as yet. People seem to flourish as well in urban areas as on the land, and there is no evidence that man made landscapes such as the bare mountains in the Caucasus or the polders in the Netherlands violate an innate preference. For the time being I note no effect (0). Mind that this is not to say that the environment is not worth protecting. Even if scenic beauty does not add to greater happiness of a greater number one can still opt to preserve it for its own sake or for the sake of other species.

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.

Selected references

(full references, footnotes and appendix can be found in an extensive version of this paper, which can be downloaded from www2.eur.nl/fsw/research/happiness/wdhref.zip)

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NOTES

1. Postadress: POB 1738, 3000 DR Rotterdam, Netherlands. E-mail: veenhoven@fsw.eur.nl
2. In sociology, the term 'life-chances' is used in the more limited meaning of access to scarce resources in society.
3. There are three main meanings of 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
4. A problem with this name is that the utilitarians used the word utility for subjective appreciation of life, the sum of pleasures and pains.
5. Frankl's (1946) logo-therapy aims to make people believe in meanings of their life they do not see.
6. In Japan do we see a higher non-response indeed, though still below 5%. Still this not a general non-western pattern. In India and Nigeria non-response is at the same level as in western nations.
7. 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.
8. 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.
9. 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).
10. 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.
11. 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).
12. 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.
13. Kurian 1992, table 194. Data 1980. Some scores seem implausible (Finland 84%, Spain 78%, Hungary 44%)
14. Medical registration. UN Demographic Yearbook 1993, table 21.
15. Polls among business men and journalists. Transparency International 1995.

16. ILO 1996, table 3
17. Expert ratings. Karantnycky et al 1995.
18. Public opinion. Item 310 in World Value Survey 2.
19. Expert rating of restrictive policies. PAI 1995.
20. Expert rating of limitations and services, IPPF 1995.
21. Public opinion. Survey items 307 and 308 in World Values Survey 2.
22. Public opinion. Items 312 and 313 in World Values Survey 2.
23. Public opinion. Items 95 and 117 in World Values Survey 2.
24. UN Human Development Report 1995, table 12.
25. UN Human Development Report 1995, table 3.5.
26. Smits et al 1996: 48
27. World Bank, World Development Report, 1995, table 1.
28. World bank, World Development Report 1995, table 3.1.
29. Average self estimates. Item 356 in World Values survey 2.
30. Kurian 1992, tables 218 and 214.
31. Average self reports. Items 175, 151 and 147 in World Values Survey 2.
32. Opinions IBM employees. Hofstede 1990
33. Public opinion. Items 69-82 in World Vlues Survey 2.
34. Public opinion. Items 272-285, 340 and 341 in World Vlues Survey 2.
35. Labor force surveys and registrations. ILO 1995, table 9.
36. Average self reports. Item 23 in World values Survey 2.
37. Kurian 1992, tables 41 and 43.
38. Kurian 1992, tables 17 and 28.
39. Kurian 1992, table 18.
40. Kurian 1992, table 84.
41. Kurian 1992, table 167.
42. Diener et al 1994, table 1.
43. This paper has been criticized by Stones et al (1995). A rejoinder appears in Veenhoven (1997b).