QUALITY-OF-LIFE AND HAPPINESS: NOT QUITE THE SAME

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Abstract

Quality-of-life is conceived as a broad concept that covers three meanings: 1) quality of the living environment, 2) quality of performance and 3) subjective enjoyment of life. 'Happiness' is understood as part of the latter meaning. It is defined as the overall appreciation of one's life-as-a-whole. This chapter explores the relation of happiness with the first two quality-of-life variants.

A review of empirical happiness-research shows that happiness concurs with several qualities of the living environment, especially with economic affluence, freedom and intimate ties. Yet not all living-conditions deemed beneficial appear to be linked with happiness, for instance not income-equality or full-employment. Empirical research shows also relations between happiness and performance, especially with physical and mental health. Again there are noteworthy exceptions, for instance happiness appears unrelated to intelligence.

The analysis illustrates that quality-of-life is not one encompassing syndrome. Rather than one quality the term denotes in fact combinations of qualities. Hence the term should be used as a token only. Reasoning, measurement and decision-making requires on more discrete concepts.

1. THE QUESTION

The terms 'quality-of-life' and 'happiness' are often equated. This conceptual connection is more or less implied in the use of words. The phrase 'quality-of-life' suggests that life is good in all aspects. Such a good life must be a happy life.

Both terms owe much of their popularity to their suggestion of inclusiveness. They came into use as slogans in discussions. 'Quality' of life was contrasted with mere 'quantity' of life (prolonging life at all cost). 'Happiness' was contrasted with 'successful' life (getting rich). In the heat of these debates precision was not required. Yet now the seminal work is done, a need for greater precision arises. When trying to promote quality-of-life and happiness, we are faced with the question what that is precisely and how these matters relate.

Answering this question requires first of all clear conceptualization. By lack of clear meaning in common language, distinct meanings must be constructed. This chapter proposes a conceptualization in which 'quality-of-life' is a conceptual family and 'happiness' one of the family-members.

Having differentiated matters conceptually the next question is how they relate in reality. To that purpose this chapter reviews the empirical research on links between happiness and other qualities of life.

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2.   NOTIONS OF 'QUALITY-OF-LIFE'

The term 'quality-of-life' is used to denotes different meanings. The following three main notions can be discerned:

Quality of environment

Often the term quality-of-life refers to quality of the living environment. Ecologists use the phrase in appeals against environmental degradation. For instance: building new roads and airports is said to harm the quality-of-life. In a similar way, sociologists speak of quality-of-life when they aim at societal merits. Sociological QOL-indexes involve items on economic affluence and social equality.

In this use of words, external conditions for a good life are in fact equated with the good life itself. A more appropriate term is 'livability'.

Quality of performance

The term quality-of-life is also used to denote how well people cope. This use of the word is most common in the therapeutic professions. Medical doctors refer to quality-of-life as (restored) ability to work and love. In their inventories it is often measured by physical ability, sometimes called 'performance-status'. In psychological discourse the term refers typically to mental propensities, such as realism and vitality.Whereas medical conceptions tend to focus on absence of limitating defects (negative health), psychologists also consider ongoing 'actualization' of latent faculties (positive health).

In this use of the term, inner ability to deal with the problems of life is equated with the good life itself. A more appropriate label would seem 'capability for life' or 'art of living'.

Quality of the result

The above two meanings describe pre-conditions for a good life, rather than the good life itself. Consequently a third meaning focusses on the latter connotation and characterizes the quality-of-life in terms of its outcomes. Outcomes are described by 'products' of life and as 'enjoyment' of life.

When quality-of-life is conceived in terms of 'products', it denotes what a life leaves behind. In a biological perspective that is at least procreation, life that does not continuate has failed its evolutional mission. In a socio-cultural perspective the quality of a life is its contribution to the human heritage. In this context it is in fact more appropriate to speak about the 'usefulness' of life than about 'quality' of life.

When quality-of-life is conceived in terms of 'enjoyment', the focus is on personal experience of life. The good life is then a life one likes. Whereas all the above meanings of the term quality-of-life denote merits that can be assessed by an impartial outsider, this latter meaning refers to a quality that can be appraised only the subject himself. Therefore, this variant is often referred to as 'subjective quality-of-life'. [1]

These three meanings of the term 'quality-of-life' are summarized in **scheme 1.**

Related distinctions in other fields

This conceptual differentiation follows a common distinction in biology and in system-theory. Equivalents are presented in **scheme** 2.

Equivalents in biology Biologists distinguish between 'habitat', 'fitness' and 'survival'. 'Habitat' is the living environment of an organism or species, 'fitness' is how well it can deal with the challenges of that environment and 'survival' is the result in terms of continuation.

Though biologists conceive 'results' of life typically in terms of 'survival', the other outcomes mentioned fit their thinking as well. As humans are cultural animals, contributions to the human heritage can be seen as analogous to physical procreation. Subjective enjoyment of life can be seen as comparable to survival as well. Experiences of pleasure and pain have the biological functioning of signalling good and bad adaptation. Feeling good means mostly that survival chances are good. Hence pleasantness of life is a biologically relevant outcome measure as well.

For biologists it is clear that these three qualities of life do not necessarily coincide. By itself, a rich environment does not guarantee survival, and mere performance does not guarantee survival either. Proficiencies must fit the demands of the environment, in particular they must meet surpass the aptitudes of concurrents. Likewise, survival does not mark an environment as good. High performing individuals can survive in a poor environment. Consequently, biologists seldom err on multi-dimensional QOL-indexes.

Equivalents in system-theory The conceptual three-partition is also fits a major scheme in system-theory. System-theorists distinguish between 'input', 'throughput' and 'output'. In this thinking, 'input' denotes the resources available in the system's 'environment'. That is what I referred to as quality of the living-environment. 'Through-put' is the use of these resources by the system, in the case of biological systems a.o. digestion of food. I referred to that phenomenon as 'performance'. Input and throughput result in 'output', part of which is fed back for environmental control and system-maintenance. Output is analogous to what I referred to as quality of life's results.

In system-theory, the quality of life's output can be conceived both in terms of 'products' and as experienced 'pleasantness'. Products can be artifacts, such as houses, which serve on their turn as new input. Pleasant experience is not only nice in itself, but also informs the human system about the adequacy of its course.

Like biologists, system-theorist will not shovel these matters on one heap. By itself, good input (environment) does not guarantee good output, and neither does good throughput (performance). Hence multi-dimension QOL-scales are not fashionable in this field either.

3.   HAPPINESS

Over the centuries, the term 'happiness' has been used as a catchword for all above mentioned meanings of 'quality-of-life'. In philosophy the first two meanings mentioned prevailed: in social philosophy the meaning of good living conditions (happiness as the good society) and in moral philosophy the meaning

of good performance (happiness as virtue). In current social science the third meaning prevails; the word happiness is commonly used to denote subjective enjoyment of life.

Subjective enjoyment of life is not a one-dimensional matter. One can enjoy the thrills of life, but at the same time suffer under its tensions. Likewise one can like life in one domain, such as marriage, but at the same time dislike life in another, such as work. In the literature on subjective quality-of-life, these appraisals are referred to as respectively 'aspect-satisfactions' and 'domain-satisfactions'. These partial appraisals of life are distinguished from subjective appreciation of life-as-a-whole.

3.1   Concept of happiness

Happiness is the degree to which a person evaluates the overall quality of his present life-as-a-whole positively. In other words, how much one likes the life one leads.

Synonyms

The word `life-satisfaction' denotes the same meaning and is often used interchangeably with 'happiness'. An advantage of the term life-satisfaction over the word `happiness' is that it emphasizes the subjective character of the concept.

An other current synonym is `subjective well-being'. Though this phrase makes clear that it is the subject who makes the appraisal, it is not so clear what the subject appraises. The term is also used for more specific self-appraisals, such as self-esteem and anxiousness.

Scope of evaluation

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

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

Temporal range

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

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

3.2 Measures of happiness

Measurement is often understood as `objective' and `external' assessment, analogous to the measurement of blood-pressure by a doctor. Happiness cannot be measured that way however. 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 mental phenomena, happiness is only partially reflected in behavior. Though some social behaviors tend to be more frequent among the happy (active, outgoing, friendly), such conduct is also observed among unhappy persons. Likewise, non-verbal behaviors such as frequent smiling or enthusiastic movements appear to be only modestly related to self-reports of happiness. Consequently, estimates of someone's happiness by his peers are often wrong. Suicidal behavior is probably more indicative of happiness. Almost all people who attempt or commit suicide are quite unhappy. However, not all the unhappy seek resort to suicide. In fact, only a fraction does.

Inference from overt behavior being impossible, we must make do with questioning. That is, simply asking people how much they enjoy their life-as-a-whole. Such questions can be posed in various contexts; clinical interviews, life-review questionnaires and survey interviews. The questions can be posed in different ways; directly or indirectly, and by means of single or multiple items. Some common questions are presented in **scheme 3.**

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

3.2.1 *Validity doubts*

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

No notion? One of the misgivings is that most people have no opinion at all about their happiness. They would be more aware of how happy they are supposed to be, and report that instead. Though this may happen incidentally, it does not appear to be the rule. Most people know quite well whether or not they enjoy life. Eight out of ten Americans think of it every week. Responses on questions about happiness tend to be prompt. Non-response on these items is low; both absolutely (± 1%) and relatively to other attitudinal questions. `Don't know' responses are infrequent as well.

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

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

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

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

3.2.2 Reliability doubts

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

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

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

Bias in appraisal Though most people have an idea of how much they enjoy life, responding to questions on this matter involves more than just bringing up an earlier judgement from memory. For the most part, memory only indicates a range of happiness. Typically, the matter is re-assessed in an instant judgement. This re-appraisal may be limited to recent change (are there any reasons to be more or less happy than I used to be?), but it can also involve quick re-evaluation of life (what are my blessings and frustrations?). In making such instant judgements, people use various heuristics. These mental simplifications are attended with specific errors. For instance the `availability' heuristic involves

orientation on pieces of information that happen to be readily available. If the interviewer is in a wheelchair, the benefit of good health is salient. Respondents in good health will then rate their happiness somewhat higher and the correlation of happiness-ratings with health variables will be more pronounced. Several of these heuristical effects have been demonstrated by Schwarz and Strack (1991).

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

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

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

3.2.3   *Comparability across nations*

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

The first objection is that differences in *language* hinder comparison. Words like `happiness' and `satisfaction' would not have the same connotations in different tongues. Questions using such terms would therefore measure slightly different matters. I checked that hypothesis by comparing the rankorders produced by three kinds of questions: a question about `happiness', a question about `satisfaction with life' and a question that invites to a rating between `best- and worst possible life'. The rankorders appeared to be almost identical. I also compared responses on questions on happiness and satisfaction in two bi-lingual countries, and found no evidence for linguistic bias either.

A second objection is that responses are differentially distorted by *desirability-bias*. In countries where happiness ranks high in value, people would be more inclined to overstate their enjoyment of life. I inspected that claim by checking whether reported happiness is indeed higher in countries where

hedonic values are most endorsed. This appeared not to be the case. As a second check, I inspected whether reports of general happiness deviate more from feelings in the past few weeks in these countries; the former measure being more vulnerable for desirability distortion than the latter. This appeared not to be the case either.

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

A related claim is that happiness is a typical *western concept*. Unfamiliarity with it in non-western nations would lead to lower scores. If so, we can expect more `don't know' and `no answer' responses in non-western nations. However, that appeared not to be the case. See **scheme** 4.[2]

Next to these tests of specific distortions I also conducted several global validity tests. One involved association with other measures of wellbeing in nations, such as mental distress and life-expectancy. Though these matters are not identical, one would at least expect some correlation. Significant correlations appear indeed. Another global validity test involved correlation with other nation characteristics. If measures of happiness are heavily biassed, they will reflect error mostly and hence produce at best small correlations with well observable matters such as economic prosperity. Below in scheme 5 we will see that correlations tend to be high.

3.3   Level of happiness

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

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

No mere resignation
Nevertheless some social critics are still reluctant to believe that modern man is really happy. Reported happiness is discounted as sullen adjustment. Rather than really enjoying their life, people would just

give up hope for a better one and try to adjust to the inevitable (e.g. Ipsen 1978). Various defensive strategies would be used: simple denial of one's misery, downward comparison and a tendency to see things rosier than they actually are. Depressives would see the world more realistic. In addition to the above discussion on validity, two counter-arguments can be mentioned:

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

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

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

Why still so many complaints?

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

Firstly, it is important to note that happiness and complaining do not exclude each other logically. One can be fairly satisfied with life-as-a-whole, but still be aware of serious deficits. In fact both stem from a reflection on life.

Secondly, worrying may to some extent contribute to happiness in the long run. Only through realistic acknowledgement of smart and danger can we cope effectively with the problems of life.

3.4   Differences in happiness

Though most people enjoy their life, not everybody is equally happy. There are sizable differences in average happiness across countries as well as differences between individual citizens within countries. **Scheme 4** presents the responses to a question on life-satisfaction in several nations. The question reads: "All things considered, how satisfied are you with your life-as-a-whole now? Rate your answer on this scale from 10 (satisfied) to 1 (dissatisfied). This question is part of the standard-questionaire of World Value Survey 2, which was held in 42 nations in the early 1990's. The focus of that comparative study

was on moral convictions. As a side-issue it also assessed happiness.

Differences in average happiness across countries
Scheme 4 also shows that the pattern of happiness is not the same everywhere. Both level and dispersion differ considerably across nations. In this collection, averages vary between 5.4 and 7.8, and standard-deviations between 1,7 and 2.4. In greater datasets even more sizable differences are observed. Other questions on happiness show identical patterns of cross-national differences (Veenhoven 1993).

Individual differences within countries
In all countries there are citizens who are happy and unhappy. Though distributions vary, the full range between extremely satisfied and extremely dissatisfied can be found everywhere. **Scheme** 4 also 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.

4.   QUALITIES OF LIFE AND HAPPINESS

Now we have defined and operationalized a distinct concept of happiness, we can proceed to explore its reality-links with other members of the quality-of-life family. To that end we will first consider the empirical relations between happiness and qualities of the living environment (first QOL-meaning cluster), and next review the associations between happiness and performance (second cluster of meanings). This paragraph takes stock of the empirical links. The next paragraph considers to what extend these findings reveal a consistent quality-of-life 'syndrome'.

4.1   Quality of society and happiness

As shown in **scheme** 4, average happiness differs greatly across nations. We have seen earlier that differences can not be explained by cultural bias in the measurement of happiness, so they are probably real. One can easily see that there is a structure in the differences. Happiness is clearly highest in the most modern and prosperous countries.

This impression is substantiated when we take a closer look. **Scheme** 5 presents correlations between happiness and societal qualities, as measured on the nation-level. The data on average happiness in nations are largely drawn from the earlier mentioned World Value Surveys. Data on other nation-characteristics are drawn from various resources. The data is described in more detail in Veenhoven (1997) Nation-characteristics are classed in eight categories: affluence, security, freedom, equality, cultural climate, social climate, population pressure and modernity. A lot of strong correlations appear, many of which maintain when economic prosperity is controlled. Three main variables explain together 63% of the differences in average happiness in nations: wealth, freedom and equality. Compared to common results in individual level studies, the variance explained here may seem exceedingly high. The greater size of the explained variance is partly due to mettodological reasons, there is less noise in

average happiness than in individual ratings. The other reason is probably substantive, the quality of society seems more important than the individual position in society.

Material affluence

Above in **scheme 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. A similar pattern appears at the individual level: correlations between personal happiness and personal income are strong in poor countries and weak in rich nations (Veenhoven 1991:13).

Security

Happiness is also higher in the nations that provide most safety. In **scheme 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 controlled.

      Elsewhere I have investigated the issue of welfare-state in more detail. 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 showed that happiness had not increased more in the nations where the welfare-state had expanded most. (Veenhoven & Ouweneel 1995).

Freedom

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

      One could imagine that freedom is not always conductive to happiness, for instance not when people are dumb and psychologically dependant. Elsewhere I have checked that hypothesis. Opportunity-to-choose appeared indeed related to happiness only in publics with a well developed capability-to-choose (Veenhoven 1996b).

Equality

Scheme 5 further shows some relations with social stratification. Surprisingly, there is little correlation with income-equality. Income-inequality is highest in Latin-American nations, but in these nations people are not particularly unhappy. This non-relationship fits the above mentioned finding on social security. Apparently, we can live with income inequalities.

      Egalitarian creed finds more support in the correlation with gender-equality. People are clearly happier in the nations were women participate more equally in education, work and politics. Further analysis has revealed that not only women are happier in these nations. Men seem to profit as well.

There is also a clear negative correlation with class-distinction. The greater the social distance as measured by education homogamy, the less happy citizens are on average.

Cultural climate

People appear to be happiest in the countries that provide most 'education' and 'information'. The partial correlations show that the relationships are not independent of economic wealth. As of yet, it is still unclear as to what extent the common variance is due to knowledge and how knowledge influences happiness.

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

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

Social climate

Scheme 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' rates[4] This underlines that involvement in work is not always beneficial to everybody. Common opinion receives more support in the correlation with 'memberships' of voluntary organizations. The more involvement in a nation, the happier its citizens.

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

Population pressure

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

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

4.3   Position in society and happiness

Numerous studies all over the world have considered differences in individual happiness within

countries. Much of the correlational findings produced by these studies are included in my World Database of Happiness (Veenhoven 1994). **Scheme 6** present some illustrative findings in an Italian study, which was part of the earlier mentioned World Value Survey.

4.3.1   *Social position*

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. This outcome cannot be disposed as a methodological artifact (see o.a. Saris et al 1996). It means that social 'deprivation' is not that bad as most sociologist think it is.

Age
Old and young are about equally happy in most countries. Contrary to common opinion life appears not less satisfying in old age; not even in very old age.

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

Income
Another commonly investigated issue is the relationship of happiness with earnings. Studies in affluent welfare states typically find only small correlations, but in other countries quite substantial differences are observed. The poorer the nation, the higher the correlations tend to be. This pattern does not fit the theory that happiness derives from social comparison. Elsewhere I discussed this implication in more detail (Veenhoven 1991).

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 worktasks, related advantages or differential selection.

4.3.2   *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'. Participation in church has similar effects on happiness as taking part in sportclubs or political parties.

4.4   Personal performance and happiness

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%. 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.

Health

Happiness tends to be greater among persons who are in good 'physical shape' and who have a lot of 'energy'. Self-perceived health correlates significantly with happiness in Italy (**scheme 6**). Changes in physical health to the good or the bad is typically followed by corresponding shift in happiness. Reversely, happiness has been shown to predict later health status and longevity (Deeg 1989).

The happy also share characteristics of good 'mental health'. Reports of psychological problems are less frequent among the happy (though not entirely absent) and they score high on measures of positive mental health, such as psycho-social development and self-actualization.

Ability

The good mental health of the happy marks their capability to deal with the problems of life. The happy are typically realistic and psychologically resilient. Most pronounced are their social abilities; happiness is typically accompanied by assertiveness and good empathy attributes.

Curiously, happiness tends to be unrelated to 'intelligence'; at least to school-intelligence as measured by current IQ-tests. However scores on recent tests of 'emotional intelligence (EQ) show sizable correlations with happiness. In fact these test tap mental health.

The superior ability of the happy is reflected in their self-appraisals. Self-esteem is high among happy people, and they feel mostly that others think good of them as well.

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. In Italy, perceived fate control in in fact te strongest correlate of happiness (**scheme** 6).

Life-goals

Though the happy are more inclined to say that they plan their life, they have actually not more plans in mind than the unhappy. There is a difference in object of life-goals however. The happy aim somewhat more on social matters (family, society) and the unhappy more matters of career.

Life-style

Happiness is not associated with an ascetic life-style. There is no relation between happiness and use of alcohol, tobacco or softdrugs. The happy report more leisure activities however. They tend more to outdoor activities than watching TV at home.

Neither do the happy stand out by better health behavior such as hygiene and going to bed early. They are more involved in sports however. Yet follow-up studies suggest that this latter correlation is due to selection. The happy are more inclined to start jogging, but do not become happier by that.

Convictions

Contrary to classic connection of happiness and virtue, we see little relationship between happiness and moral beliefs. The happy tend to value social values somewhat more and endorse puritan morals slightly less. This manifests also in somewhat higher scores on post-materialism.

Correlations with religiousness are quite variable. Studies in the USA show positive relations but in other nations zero-relations appear. In Italy we see no significant relation (**scheme** 6). The correlation between happiness and religiousness seems to have decreased over the last decades.

The happy are generally somewhat more interested in politics that the unhappy. In Italy, this pattern is not visible however (**scheme** 6). The opinions of the happy tend to be moderate. Extreme views are more adhered by the unhappy. This manifests in a greater tolerance of the happy as well. The latter effect does not manifest in Italy either.

5.   A QUALITY-OF-LIFE SYNDROME?

As noted in the introduction, the phrase 'quality-of-life' bears the allusion of inclusiveness. It suggests that different qualities concur more or less. For that reason the term is often used in one breath with 'happiness'.

The expression presumes in fact that there is a quality-of-life 'syndrome'. Life-merits would go together like symptoms do in an illness. In this view quality-of-life is something that can be meaning-fully measured by summing aspect-scores, which is common practice in quality-of-life research.

Now we have reviewed the empirical data we can consider the reality-value of this view. Do the various qualities of life really concur in an identifiable pattern?

5.1   Concurring qualities of life

There is at least one cluster of associations that stands out in these data. Happiness goes hand in hand with modernity. On average, people are happier in nations characterized by high economic development, good security of life, considerable freedom, high education, urbanization and individualization. Within this macro-social context, we see strong links between happiness and social embeddedness. In modern society people enjoy life most when they have intimate ties with family and friends and they participate in voluntary associations. In modern societies there is also a clear relation between happiness and ability to control one's environment, the happiest being relatively healthy, outgoing and self-controlled. This empirical pattern can be meaningfully interpreted, both in terms of causes and effects.

When interpreted as effects on happiness, the correlations can first of all be seen to show that gratification of basic needs rears happiness. On the nation-level correlations with affluence, security and peacefulness can be interpreted that way, on the individual level the correlation with intimate ties. Other findings can be seen to show that autonomy fosters happiness. At the nation-level the correlations with freedom and individualism, and at the individual level the correlations with ability to control one's life. Both interpretations fit Maslow's theory of motivation, which presumes that we have rather uniform 'deficiency-needs' as well as more variable 'growth-needs'. Happiness is likely to be highest when both kinds of needs are gratified.

The correlations can also be interpreted as consequences of happiness. At the nation level this would mean that happy citizens make a better society, amongst other things because happiness makes them work harder and behave more reasonably. The correlations with affluence, security and tolerance can be interpreted that way. Such effects of happiness will also create more room for freedom. At the individual level this view suggests that happiness facilitates social relations, and fosters physical and mental health. There is indeed evidence for such positive effects of happiness from experimental and longitudinal studies (Veenhoven 1984).

Possibly, there are other quality-configurations as well. One could imagine that traditional virtues of social solidarity and religious devotion do add to happiness in times of turmoil and among publics characterized by psychological dependency. As yet the available data do not permit a good exploration of these additional syndromes.

5.2   Unconnected qualities-of-life

Much of the observations do not fit an inclusive notion of quality-of-life however. We saw that with several of the findings on income and income distribution. At the nation level we found no relation with social security and income-inequality, while at the individual level happiness is only weakly correlated with family-income (at least in rich countries). Likewise, studies at the individual level found no relation between happiness and cherished qualities such intelligence and planning mindedness. Neither appeared happiness associated with advocated life-styles, such as frequent sporting, going to bed early and abstinence of alcohol. Clearly, not everything deemed good makes life actually more enjoyable.

Further, the qualities that do concur with happiness correspond only partially. Firstly, most of

the relations seem to be conditional, especially the relations with personal abilities. An internal control orientation is unlikely to foster happiness when there is little to control, for instance when one lives in an authoritarian society or when one is severely handicapped. Secondly, the statistical relations are seldom linear. Ever more of a quality does not always yield more happiness. We saw that in the case of material affluence. Once a reasonable standard of living is reached, further increases in buying power do not add to happiness any more.

6. CONCLUSION

The term 'quality-of-life' suggest that the various things we deem good tend to coincide. Happiness is believed to be part of this syndrome.

      Happiness does indeed concur with several qualities of life, for instance with environmental qualities such as freedom and personal abilities such as autonomy. Yet more of these qualities does not always give more happiness. Most of the relations are subject of the law of diminishing utility and much of the relations seems to be bound to specific conditions. Further happiness does not concur with all cherished qualities, for instance not with state-welfare or with personal intelligence. Some thing deemed good may even reduce happiness.

      In reality there is thus less inclusiveness than the term 'quality-of-life' suggests. Hence we should use the term only as a token, and base our reasoning and measurements on more distinct concepts.

Scheme 1

Notions of quality-of-life

Main notions	**Subsidiary notions**
Quality of environment (livability)	* quality physical milieu * quality of society * quality place in society
Quality of performance (life-ability)	* physical fitness * mental fitness * moral stature?
Quality of life result (fulfillment)	* productivity * enjoyment

Scheme 2

Similar distinctions in other fields

Main notions of QOL	*Equivalent distinctions in:*	
	Biology	*System-theory*
Quality of environment	habitat	input
Quality of performance	fitness	throughput
Quality of life results	survival	output

Scheme 3

Some currently used questions about happiness

Single questions

* Taking all together, how happy would you say you are: very happy, quite happy, not very happy, not at all happy?
  (item used in the World Value Surveys)

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

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

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

Multiple questions (summed)

* Two identical questions, asked at the beginning and the end of the interview:
  - How do you feel about your life-as-a-whole?
  (Andrews & Withey's (1976) Life [3])

* Five questions, rated on a 1-7 scale ranging from strongly agree to strongly disagree.
  - In most ways my life is close to ideal.
  - The conditions of my life are excellent.
  - I am satisfied with my life.
  - So far I have gotten the important things I want in life.
  - If I could live my life over, I would change almost nothing.
  (Diener's 1985 Satisfaction With Life Scale SWLS) [3]

* Ten questions on occurrence of affects in the last few weeks, answered yes/no
  - Particular exited or interested in something?
  - So restless that you could not sit long in a chair?

Scheme 3 continued

- Proud, because someone had complimented you?
- Very lonely or remote from other people?
- Pleased about having accomplished something?
- Bored?
- On top of the world?
- Depressed or very unhappy?
- That things were going your way?
- Upset because someone criticized you?

Bradburn's (1965) Affect Balance Scale.

Computation: Number of affirmative responses on positive items detracted from number of responses to negative items

Scheme 4

Life-satisfaction in 10 nations early 1990's

Nation	response categories											Mean	SD
	satisfied									*dissatisfied*			
	10	*9*	*8*	*7*	*6*	*5*	*4*	*3*	*2*	*1*	*NA*		
Brazil	28	9	17	13	7	15	4	3	1	3	0.4	7,37	2,41
Britain	18	13	26	19	9	9	3	2	1	1	0,6	7,49	1,94
Canada	17	24	27	16	6	6	2	2	0	1	0.1	7,89	1,74
France	8	11	21	18	13	18	4	3	1	1	0,9	6,78	1,98
India	15	9	17	13	13	20	5	5	2	2	1,6	6,70	2,28
Italy	15	13	24	18	12	8	3	2	1	3	0,7	7,26	2,06
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

Data: World Value Survey 2

Scheme 5
Correlates of average happiness in nations
48 nations 1990

nation characteristics	*correlation with happiness*		*N*
	zero order	*affluence controlled*	
Material affluence			
Income per head: purchasing power 1989[5]	+.64**	---	43
Incidence of absolute poverty:			
* malnutrition: % < 2500 calories[6]	—.16	+.12	42
* % without safe water[7]	—.35	+.24	38
Security			
Physical safety [8]			
* murder rate	—.39**	—.17	39
* lethal accidents	—.67**	—.49**	39
Legal security: incidence of corruption[9]	—.73**	—.50*	37
Social security: state expenditures in % GDP[10]	+.38	—.03	34
Freedom			
Political freedom[11]			
* respect of political rights	+.35*	+.34	47
* respect of civil rights	+.41*	+.34	47
Personal freedom			
* freedom of marriage: acceptance divorce[12]	+.18	+.02	42
* freedom of procreation:			
* abortion available[13]	+.13	—.12	37
* sterilization available[14]	+.18	+.27	34
* freedom of sexuality: [15]			
* acceptance of homosexuality	+.62**	+.20	42
* acceptance of prostitution	+.35	—.10	42
* freedom to dispose of own life: [16]			
* acceptance suicide	+.29	+.03	42
* acceptance of euthanasia	+.28	—.01	40
Self-perceived freedom:[17]			
* in life	+.50**	+.24	42
* at work	+.74**	+.47*	41

Scheme 5 continued

Social equality

Income-inequality: ratio lowest to highest 20%[18]	—.11	+.07	28
Gender-equality: woman empowerment index[19]	+.51**	+.07	35
Class-inequality: educational homogamy[20]	—.52*	—.58*	27

Cultural climate

Education

* % literate [21]	+.19	—.11	47
* school enrolment ratio [22]	+.51**	+.26	36
* average years in school [23]	—.07	—.06	40

Information [24]

* newspapers pc	+.36*	—.07	32
* TV receivers pc	+.39**	—.23	42

Religion [25]

* belief in God	+.38*	+.40*	37
* religious identification	+.24	+.20	41
* religious participation	+.15	+.28	38

Value orientation: Hofstede dimensions [26]

* individualism	+.69**	+.04	32
* power distance	—.50**	—.05	32
* masculinity	—.20	—.15	32
* uncertainty avoidance	—.53**	—.30	32

Social climate

Tolerance

* absence of prejudice [27]	+.58**	+.01	38

Trust [28]

* trust in people:			
* in family	+.26	+.07	30
* in compatriots	+.02	+.10	40
* trust in institutions	+.26	+.41	30

Social participation

* in work: unemployment [29]	+.42**	+.34*	42
* in voluntary associations: memberships [30]	+.52**	+.28	34

Peacefulness [31]

* military dominance: soldier/civilian ratio	—.38*	—.46*	41
* military expenditure in % GDP [32]	—.25	—.26	41

Population pressure

Population density: persons per km^2 [33]	+.01	+.00	42
Population growth: population doubling time [34]	+.06	—.13	39

Scheme 5 continued

Modernity

Urbanization: % urban population [34]		+.48**	+.28	40
Industrialization: non-agricultural share GDP [34]		+.49**	+.03	32
Informatization: telephones pc [35]		+.64**	+.32	42
Individualization: expert rating [36]		+.55**	+.21	39

Scheme 6
Correlates of individual happiness in Italy

	r	ß
Social position		
Age	-.03	+.08*
Male sex	+.05*	+.01
Education: years schooling	-.07*	-.10*
Family income	+.03	-.06*
Employed (vs unemployed)	+.04	-.00
Occupational status	+.04	-.05
Intimate ties		
Married (vs divorced+widow+single)	+.08*	+.10*
Memberships	+.03	-.00
Capability		
Self-rated health	+.24*	+.19*
Perceived fate control	+.36*	+.36*
Convictions		
Religious, self-difinition	+.03	-.02
Political concern	+.00	+.06*
Tolerance	+.00	-.01
R^2		.18

* = p <.01

Source: World Value Survey 2

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World Values Survey 2

Cumulative file 1990-92

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NOTES

1. Inversely, appraisals by outsiders are referred to as 'objective' quality-of-life. This terminology is misleading, in that it suggests impartial truth. Yet criteria of quality are seldom value-free. For instance: the amount of money I have can be counted 'objectively' by an outsider, but taking money as a quality-of-life criterion is based on a 'subjective' value-judgement.

2. 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.

3. The World Value Studies assess happiness in three ways: single direct question on happiness, single direct question on life-satisfaction and a 10 item questionaire on mood in the last few weeks (Bradburn's Affect balance Scale).

4. 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.

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

6. Data on happiness in nations from World Database of Happiness (most gathered by World value Surveys)

7. 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).

8. 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.

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

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

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

12. ILO 1996, table 3

13. Expert ratings. Karantnycky et al 1995.

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

15. Expert rating of restrictive policies. PAI 1995.

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

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

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

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

20. UN Human Development Report 1995, table 12.

21. UN Human Development Report 1995, table 3.5.

22. Smits et al 1996: 48

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

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

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

26. Kurian 1992, tables 218 and 214

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

28. Opinions IBM employees. Hofstede 1990

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

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

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

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

33. Kurian 1992, tables 41 and 43.

34. Kurian 1992, tables 17 and 28.

35. Kurian 1992, table 18.

36. Kurian 1992, table 84.

37. Kurian 1992, table 167.

38. Diener et al 1994, table 1.