

QUALITY-OF-LIFE IN NATIONS

As measured by how long and happy people live

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1 WHAT IS QUALITY-OF-LIFE?

The term 'quality of life' is used to denote that life is good, but it does not specify what is good about life. The term is also used in more specific ways, and these can be clarified with the help of the classification of qualities of life presented in [Scheme 1](#).

1.1 Four qualities of life

This classification of meanings depends on two distinctions. Vertically, there is a difference between chances for a good life and actual outcomes of life. Chances 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 confused with health itself. Yet means and ends are less well distinguished in the discussion on happiness.

Horizontally, there is a distinction between 'external' and 'internal' qualities. External quality refers to the environment; internal qualities are part of the individual. This distinction is also quite commonly made 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 or less likely. Again, these basic insights are lacking in many discussions about happiness.

Livability of the environment

The left top quadrant denotes the meaning of good living conditions. Often the terms 'quality-of-life' and 'well-being' are used in this particular meaning, especially in the writings of ecologists and sociologists. Economists sometimes use the term 'welfare' for this meaning. 'Livability' is a better word because it refers explicitly to a characteristic of the environment and does not carry the connotation of Paradise. Politicians and social reformers typically stress this quality of life.

Life-ability of the person

The right top quadrant denotes inner life-chances, i.e. how well we are equipped to cope with the problems of life. This aspect of the good life is also known by different names. Doctors and psychologists often use the terms 'quality of life' and 'well-being' to denote this specific meaning, whereas biologists refer to this phenomenon as

'adaptive potential'. On other occasions, it is denoted by the medical term 'health', in the medium variant of the word. Sen (1992) calls this quality of life variant 'capability'. I prefer the simple term 'life-ability', which contrasts elegantly with 'livability'. This quality of life is central to the thinking of therapists and educators.

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 value, such as ecological preservation or cultural development. In fact, there is a myriad of values on which the utility of life can be judged. 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', denoting 'true' significance instead of a mere subjective sense of meaning. I prefer the more simple 'utility of life', admitting that this label may also give rise to misunderstanding. Moral advisors, such as spiritual leaders, emphasize this quality of life.

Satisfaction with Life

Finally, the bottom right quadrant represents the inner outcomes of life in which the quality is in the eye of the beholder, i.e. the subjective appreciation of life. This quality is commonly referred to as 'subjective well-being', 'life-satisfaction' and 'happiness' in a limited sense. When life has more of this quality, the more and the longer it is enjoyed. In fairy tales this combination of intensity and duration is denoted with the phrase 'they lived happily ever after'. There is no professional interest group that stresses this meaning, possibly one of the reasons for the reservations surrounding the greatest happiness principle.

In this chapter I focus on this latter quality of life, i.e. satisfaction with life. The purpose of this book is to find out how different institutional arrangements work out on the lives of citizens and that calls for a focus on individual outcomes.

1.2 Four kinds of satisfaction

What is 'satisfaction'? It is a word with multiple meanings, which can be elucidated with a simple scheme. **Scheme 2** is based on two distinctions; vertically between satisfaction with 'parts' of life versus satisfaction with life 'as-a-whole', and horizontally between 'passing' satisfaction and 'enduring' satisfaction. These two bi-partitions yield a four-fold taxonomy.

Pleasures

Passing satisfaction with a part of life is called 'pleasure'. Pleasures can be sensory, such as a glass of good wine, or mental, such as the reading of this text. The idea that we should maximize such satisfactions is called 'hedonism'. Epicure was an advocate of that view. He refers to pleasure as *Αταραξία* (ataraxia), which is commonly translated as 'happiness'.

Part-satisfactions

Enduring satisfaction with a part of life is referred to as 'part-satisfaction'. Such part-satisfactions can concern a domain of life, such as working-life, and aspects of life, such as its variety. Sometimes the word happiness is used for such part-satisfactions, in particular for satisfaction with one's career. In the same vein, the word has sometimes been used for satisfaction with one's consumer life.

Peak-experience

Passing satisfaction can be about life-as-a-whole, in particular when the experience is intense and 'oceanic'. This kind of satisfaction is usually referred to as 'peak-experience'. When poets write about happiness, they usually describe an experience of this kind. Likewise, religious writings use the word happiness often in the sense of a mystical ecstasis. Another word for this type of satisfaction is 'enlightenment'.

Life-satisfaction

Enduring satisfaction with one's life-as-a-whole is called 'life-satisfaction' and is also commonly referred to as happiness. This is the kind of satisfaction Bentham (1789) seems to have had in mind when he described happiness as the 'sum of pleasures and pains'. I have previously delineated this concept in more detail, and have defined it as 'the overall appreciation of one's life-as-a-whole' (Veenhoven 1984, 2000c).

In this chapter I focus on this latter meaning and hence I will use the words 'happiness' and 'life-satisfaction' interchangeably.

2 MEASUREMENT OF HAPPINESS

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 resort to suicide, in fact, only a fraction does.

2.1 Survey questions on happiness

Since inference from overt behavior is impossible, we only can resort to 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;

Taken together, how satisfied or dissatisfied are you currently with your life as a whole?

1	2	3	4	5	6	7	8	9	10
Dissatisfied								Satisfied	

Since the 1970s, such questions have been included in many 'Quality-of-Life' surveys all over the world. There is now a growing body of data on happiness in nations.

However, the validity and reliability of such simple self-reports is questioned. 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 about self-reported data is that many people have no opinion at all about their happiness: they are more aware of how happy they are supposed to be and report that instead. Although 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 (1%) and relatively to other attitudinal questions. 'Don't know' responses are infrequent as well.

A related assertion is that respondents confuse 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. Although that pattern is observed sometimes, it is not the general rule. 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 be involved.

This bias is seen to manifest itself in over-reporting 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. First, the fact that more people claim to be happy than unhappy does not imply over-reporting of happiness. It is quite possible that most people are truly happy (some reasons will be discussed below). Second, there are also good reasons why most people think that they are happier than average. One such reason is that most people are like critical scientists and believe that unhappiness is the rule. Third, the occurrence of headaches and worries among the happy does not prove response distortion. Life can be a sore trial some times, but can still be satisfying *en 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. Responses seldom change from 'happy' to 'unhappy', but switches from 'very' to 'fairly' are more 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 the place where the interview is held, characteristics of the interviewer, the 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. Some biases, such as those produced by technique of interrogation and the sequence of questions, may be systematic and do affect the reliability of distributional data. In principle they do not affect correlations, unless the measure of the correlate is biased in the same way (correlated error). To some extent, systematic error can be estimated and corrected.

2.4 Differences in happiness across nations

There are happy and unhappy citizens in every country, and, although distributions vary, the full range between extremely satisfied and extremely dissatisfied can be found everywhere. This pattern of distribution, however, differs greatly across nations. [Scheme 3](#) presents the responses in the most and least happy nations in the year 2000, Switzerland and Zimbabwe.

Clearly, the pattern of happiness is not the same everywhere. Both level and dispersion differ considerably across nations. Currently we have comparable data on 90 nations in the 1990s. Some illustrative cases are presented in [Scheme 4](#).

Herein we can see that average happiness is lower in Japan than in The Netherlands. That difference is presented in more detail in [Scheme 5](#). A closer look at the bar-chart reveals that the percentage of very satisfied people (score 8 to 10) is considerably lower in Japan, and that the percentage of very dissatisfied people (score 1 to 4) is much higher.

3 EXPLANATIONS FOR THE DIFFERENCES

The observed differences have been explained in two ways: as research artefacts and as real effects. In the former case, the focus is on possible biases; in the latter, the focus is on causal mechanisms.

3.1 Methodical explanations

These differences have often been explained as cultural measurement biases. The following sources of error are mentioned.

Semantic Bias

A common account for the observed differences in happiness is that *language* plays tricks on us. Words like 'happiness' and 'satisfaction' would not have the same connotations in different tongues. Questions using such terms would therefore measure slightly different matters. This hypothesis was tested by comparing the rank-orders produced by three kinds of questions: questions about 'happiness', 'satisfaction with life' and a question that ask respondents to rate between 'best-and-worst possible life'. The rank-orders appeared to be almost identical. We also compared responses on questions on happiness and satisfaction in two bi-lingual.

Desirability Bias

A similar explanation 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 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; for instance, scores on the Affect Balance Scale are also low in Japan (Veenhoven 1993).

Response Bias

A third explanation 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, Iijima (1982) accounts for the low scores in Japan in this way. Yet this tendency does not manifest in responses to all survey questions. Moreover, the low level of happiness in Japan is not only due to a concentration in the middle of the scale, but also to more responses on the negative end of the scale (see [Scheme 5](#)).

Western concept

Lastly, it is argued that happiness is a typical Western concept and that 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. This, however, does not appear to be the case. Non-response is low everywhere, typically below 1%. This fits the finding that facial expressions of happiness are recognized all over the world (Ekman 1970). The experience of happiness or unhappiness is apparently universal.

Explanatory power

All these explanations imply that the observed differences in happiness reflect measurement error in the first place and that there is little system in that. If so, there should be little correlation between happiness and 'objective' country characteristics such as wealth and democracy. For instance, Easterlin *et al.* (1974) have argued that this is indeed the case, but recent data state otherwise.

3.2 Substantive explanations

If we accept that differences between countries are real, then explanations can be sought in both the livability of nations and in the life-ability of citizens, that is, in the top-left and top-right quadrants in [Scheme 1](#).

3.2.1 *Livability of society*

The livability of a society depends on many things, only some of which can be quantified and compared across nations. Still, differences on these few societal traits can explain most of the observed variation in happiness across nations.

Material affluence

Scheme 6 depicts the relationship between economic affluence and happiness in nations. The richer the country, the happier its inhabitants are. The relationship is curvilinear; 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 suggests that the law of diminishing returns applies. A similar pattern is observed at the individual level: correlations between personal happiness and personal income are strong in poor countries and weak in rich nations.

Security

Happiness is also higher in the nations that provide most safety. There is a strong correlation with physical safety as measured by the number of lethal accidents ($r = -.59$). Average happiness in nations is also correlated with legal security and in particular with the absence of corruption ($r = +.60$). These correlations appear to be largely independent of economic affluence. The relationship with state-provided social security is less pronounced ($r = +.31$), and disappears when economic affluence is controlled.

Freedom

People are also happier in nations that allow the most autonomy. This appears in correlation with economic freedom ($r = +.59$), political freedom ($r = +.49$) and personal freedom ($r = +.44$). The latter relationship is depicted in **Scheme 7**. These statistical relationships are also largely independent of economic affluence.

Freedom in society can affect the happiness of citizens in several ways. Economic freedom creates more wealth and provides opportunities for self-development. Political freedom is likely to provide protection against injustice and assault. Personal freedom can allow people to choose lifestyles that better fit their personal needs and capacities. Yet these opportunities-to-choose add to happiness only in societies with a well developed capability-to-choose (Veenhoven 2000a).

Equality

Surprisingly, there is little correlation between average happiness and income-inequality in nations ($r = +.06$). Yet, there are pronounced relationships with gender-inequality ($r = -.45$) in nations. Social inequality can affect happiness negatively by the frustrations and limitations it involves. Possibly, some kinds of inequality may also involve positive effects, which balance out the negative ones. This may be the case with income-inequality. (**Scheme 8**)

Cultural climate

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

Similarly, we also see some links with 'religion'. Countrywide belief in God is positively related to average happiness, but religious participation is not. This

suggests that the effect of religion on happiness is mainly a matter of perceived meaning.

There are also strong links with 'values'. People are typically happier in those nations where individualism is adhered to and authoritarianism is rejected; in other words, where a modern value-orientation prevails.

Social climate

Comparative studies have also revealed a strong link between average happiness and 'tolerance' in the country as measured by the number of kinds of people (e.g. homosexuals) one does not want as a neighbor ($r = +.50$). The less prejudiced, the happier. Not surprisingly, people tend to be happier in a climate of 'peacefulness'. The more militarized a society is, the less happy its inhabitants. This relationship is independent of economic affluence.

Population pressure

Average happiness appears to be 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 aforementioned 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 are. This finding will be a surprise to prophets of doom, who associate modernity with anonymity and alienation. Although modernization may have its share of problems, its benefits are clearly greater.

Together, the above national characteristics explain 81% of the differences in happiness across nations.

3.2.2 *Life-ability of people*

The observed differences in happiness across nations can also be due to variation in personal capability to cope with the living conditions in the country. Incompetent people will be unhappy even in paradise. Again, there are many life-abilities that might affect happiness, only a few of which can be quantified and compared across nations; a small number of indicators appear to explain a lot of the difference.

Physical health

Physical health is easily measured with self-reports, and average self-reported health in nations is strongly related to average happiness ($r = +.80!$). This relationship is depicted in **Scheme 9**. Self-rated health is lower in Japan than in The Netherlands, which is surprising, because the Japanese live about 3 years longer.

Mental health

Mental health is typically measured using self-reports of symptoms of disorder. One of such symptoms is 'anxiety'. Average happiness appears to be lower in nations where *anxiety at work* is more common ($r = -.45$). Happiness is lower in nations where people report more symptoms of *psychoticism*, though the correlation is not so strong ($r = -.18$). Likewise, there is a negative correlation between average

happiness and prevalence of *neuroticism* in nations ($r = -.29$). This latter relationship is depicted in **Scheme 10**.

Mental health can also be measured in a positive way using indications of cu-functioning. One such indicator is psychological *extroversion*. Happiness appears to be higher in nations where extraverted personalities are more common ($r = +.21$). Public mental health can affect average happiness in two ways: mental problems reduce not only the happiness of the persons involved, but also affect their families and colleagues. Research has shown that even minor problems hurt a lot.

Taken together, these stray indicators of modal life-ability explain 63% of the observed differences in happiness across nations.

4 CONCLUSION

Average happiness is a good measure of quality of life in nations; happiness is a major quality in itself and it also reflects how well the living conditions in a country fit with the citizen's life-abilities. Asking people how much they like the lives they lead can, in turn, measure happiness in nations. Responses to such questions in surveys of the general population show wide differences across nations, and reveal lower scores in Japan than in The Netherlands. There is a systemic element in these differences: people are happier in nations that are characterized by economic affluence, political democracy, good governance and a climate of freedom and tolerance. Happiness is also higher in nations where citizens feel healthy and are mentally sane. The observed differences between Japan and The Netherlands fit that pattern.

References

- Bentham,J., (1789)
An Introduction into the Principles of Morals and legislation.
London: T. Payne and son.
- Easterlin, R, A., (1974)
'Does Economic Growth Improve the Human Lot? Some Empirical Evidence'.
In: David, P. A., Melvin, W.R.(eds.), Nations and Households in Economic Growth,
New York: Academic Press, 89-125.
- Ekman.P., (1970)
'Universal facial expression of emotion'.
Californian Mental Health Research Digest 8, 151-158.
- Gerson.E.M., (1976)
'On Quality of Life'.
American Sociological Review 41,793-806.
- Iljinu,K., (1982)
"The feeling of satisfaction and happiness of the Japanese and other people'.
Paper, Nippon Research Centre, Tokyo.
- Sen, A., (1992)
'Capability and well-being'.
In: Sen, A.,Nussbaum,M.(eds.),The Quality of Life, Clarendon press,
Oxford, 30-53.
- Veenhoven, R., (1993)
Happiness in Nations
Erasmus University Rotterdam: RISBO.
- Veenhoven, R., 1984.
Conditions of Happiness
Dordrecht: Kluwer Academic.
- Veenhoven, R., 2000c.
'The four qualities of life: Ordering concepts and measures of the good life'
Journal of Happiness Studies 1, 1-39.
- Veenhoven, R., 2000a.
'Freedom and happiness: a comparative study in 44 nations in the early 1990s'
In: Diener, E., Suh, E.M. (eds). Culture and Subjective Well-being. MIT Press,
Cambridge, 157-188.
- World Database of Happiness.
Continuous register of scientific search on subjective enjoyment of life.
Erasmus University Rotterdam, The Netherlands. Available at:
<http://www.worlddatabaseofhappiness.eur.nl>.

Scheme 1
Four qualities of life

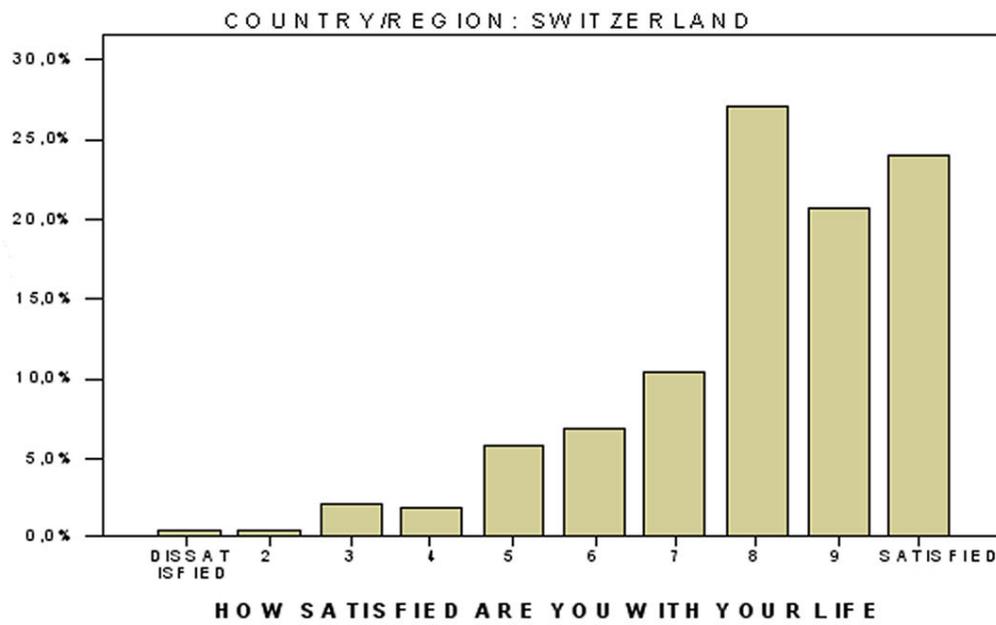
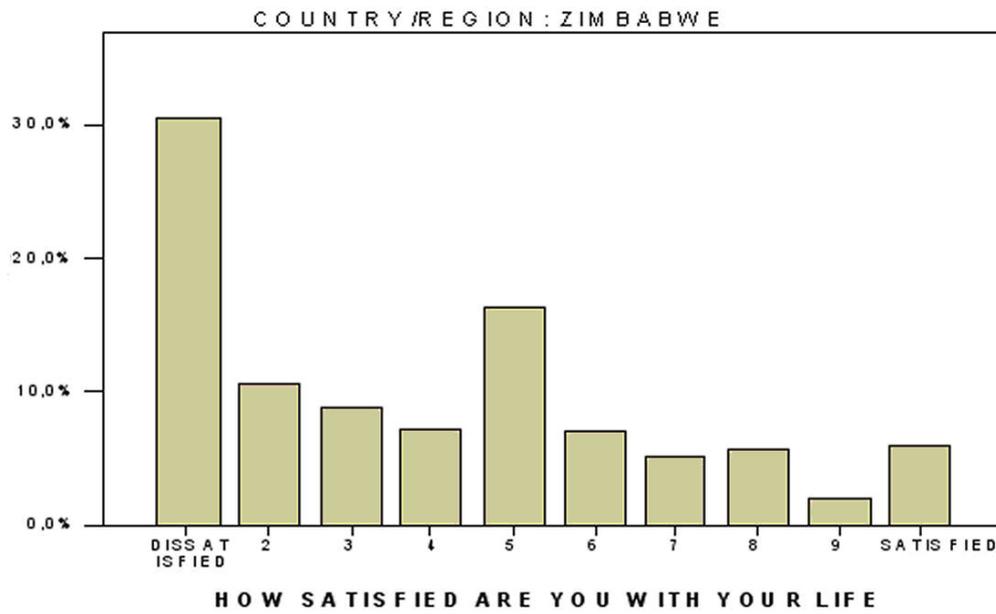
	<i>Outer qualities</i>	<i>Inner qualities</i>
<i>Life-chances</i>	Livability of environment	Life-ability of the person
<i>Life-results</i>	Utility of life	<u>Satisfaction</u>

Scheme 2
Four kinds of satisfaction

	<i>Passing</i>	<i>Enduring</i>
<i>Part of life</i>	Pleasure	Part-satisfaction
<i>Life-as-a-whole</i>	Top-experience	<u>Life-satisfaction</u>

Scheme 3

Least and most happy nation in the world in 2000



Scheme 4

Average happiness in nations in the 1990s

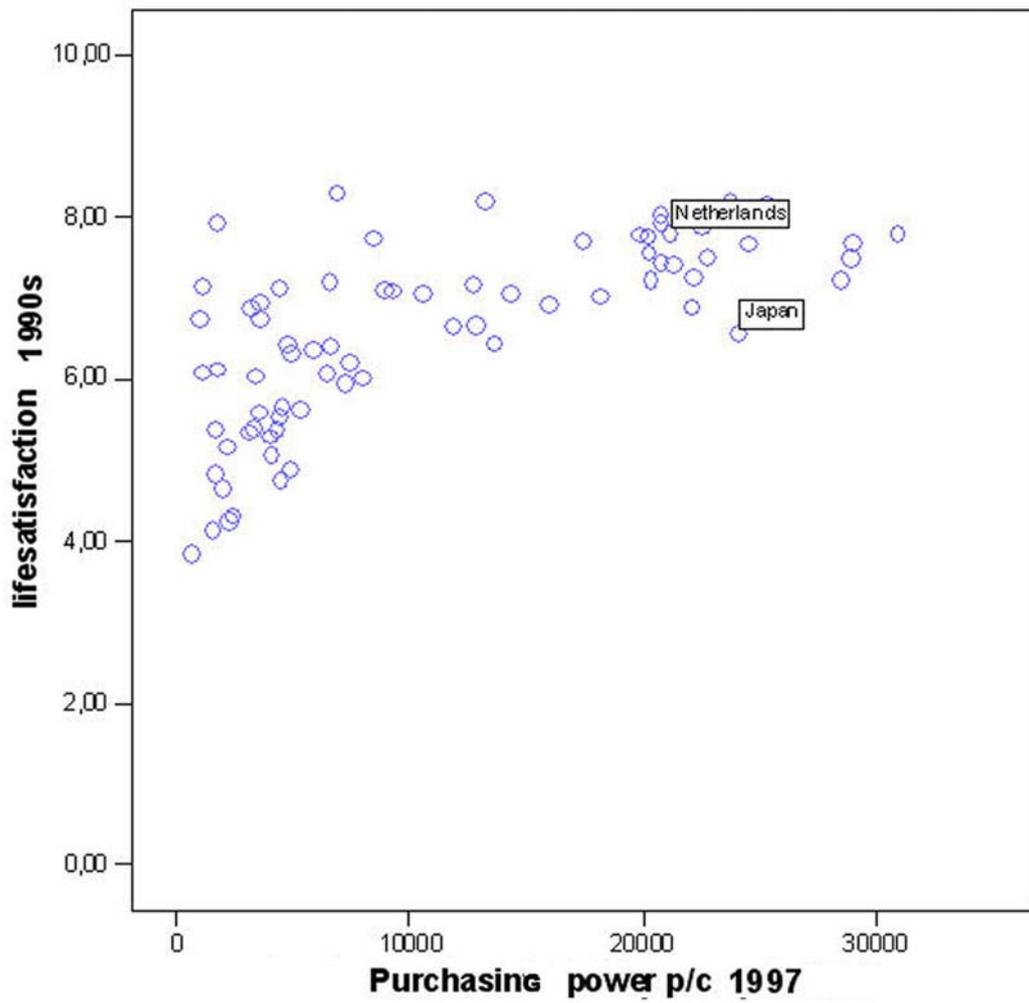
Switzerland	8.0
Netherlands	7.6
USA	7.4
Mexico	7.4
Britain	7.2
Spain	7.1
Israel	6.7
Taiwan	6.6
Philippines	6.4
Japan	6.2
Poland	5.9
South Korea	5.8
India	5.7
Russia	4.8
Pakistan	4.3
Ukraine	3.6
Zimbabwe	3.3

Source: World Database of Happiness, Distributional Findings in Nations, Rank Report 2005/1

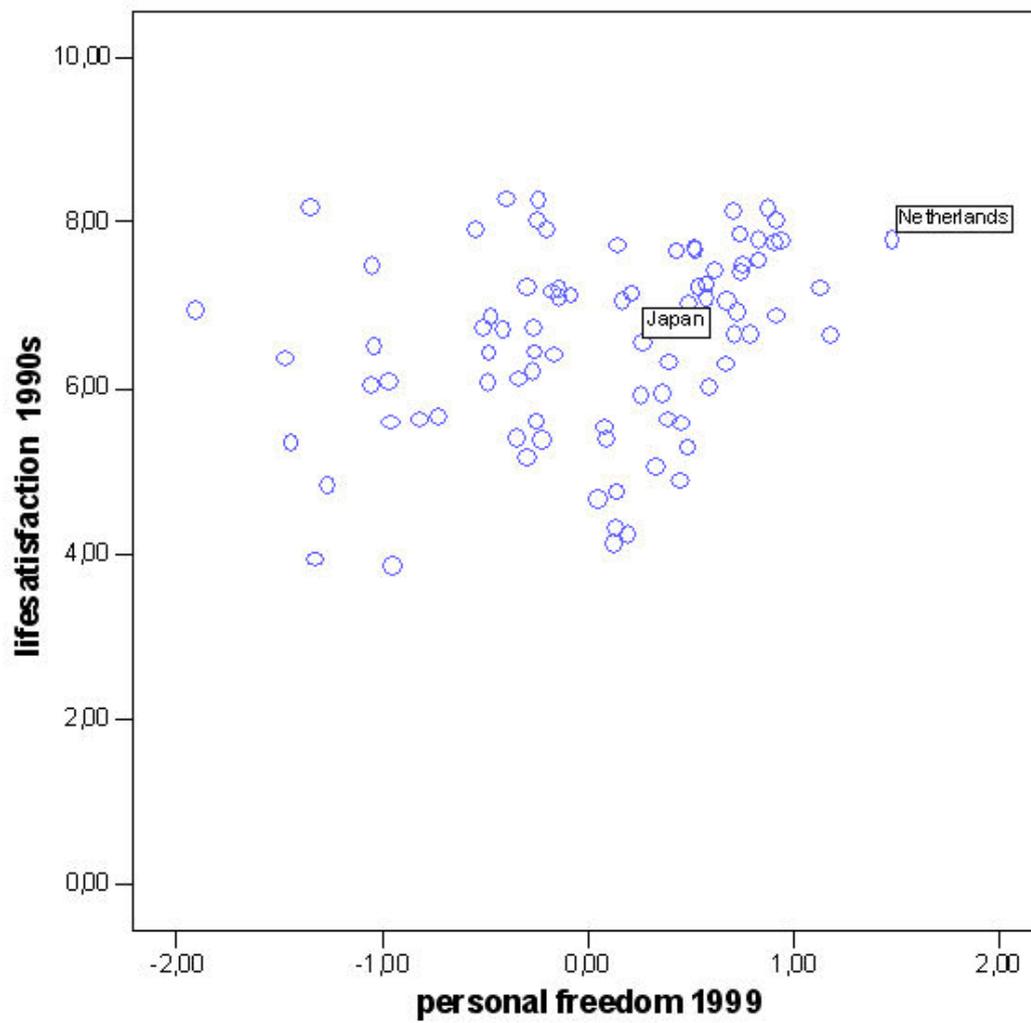
Scheme 5
Average happiness in Japan and The Netherlands in 2000



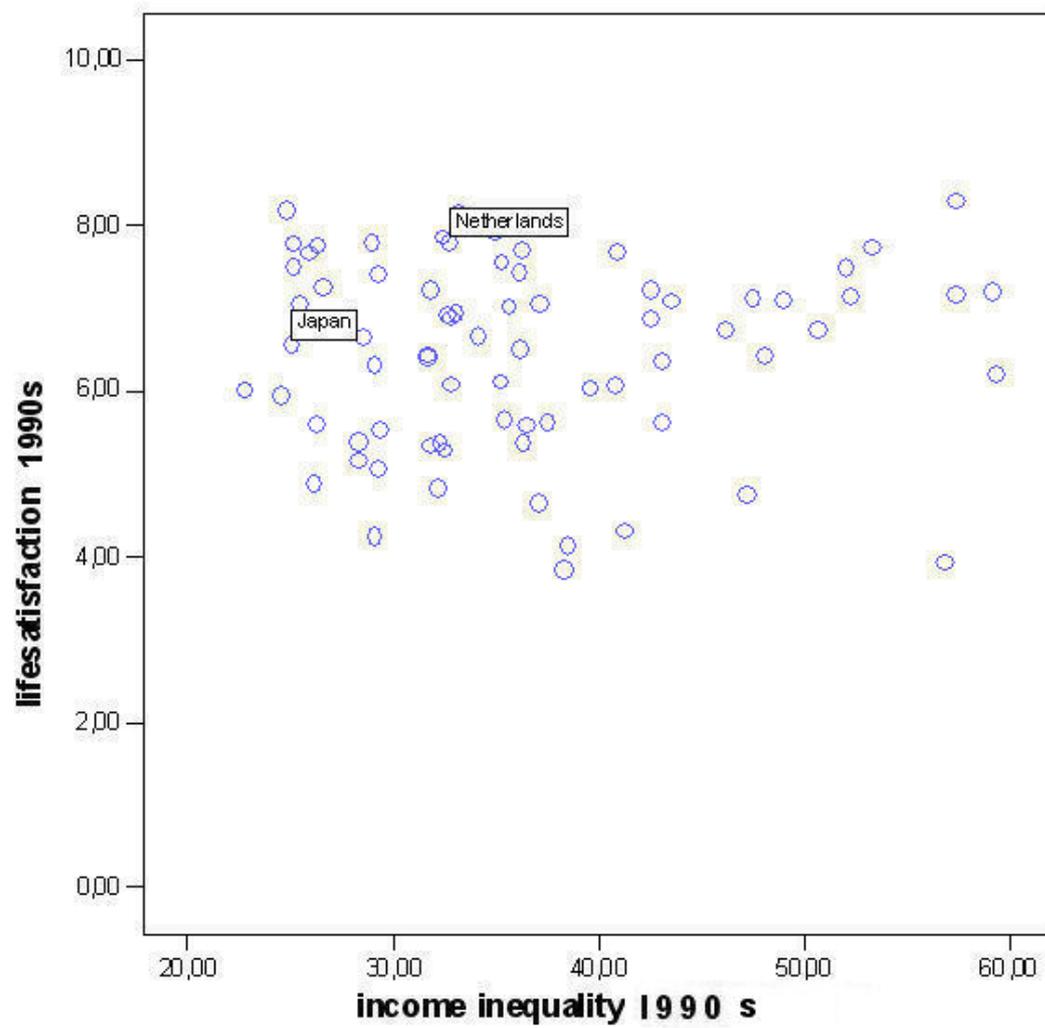
Scheme 6
Happiness and economic affluence in nations



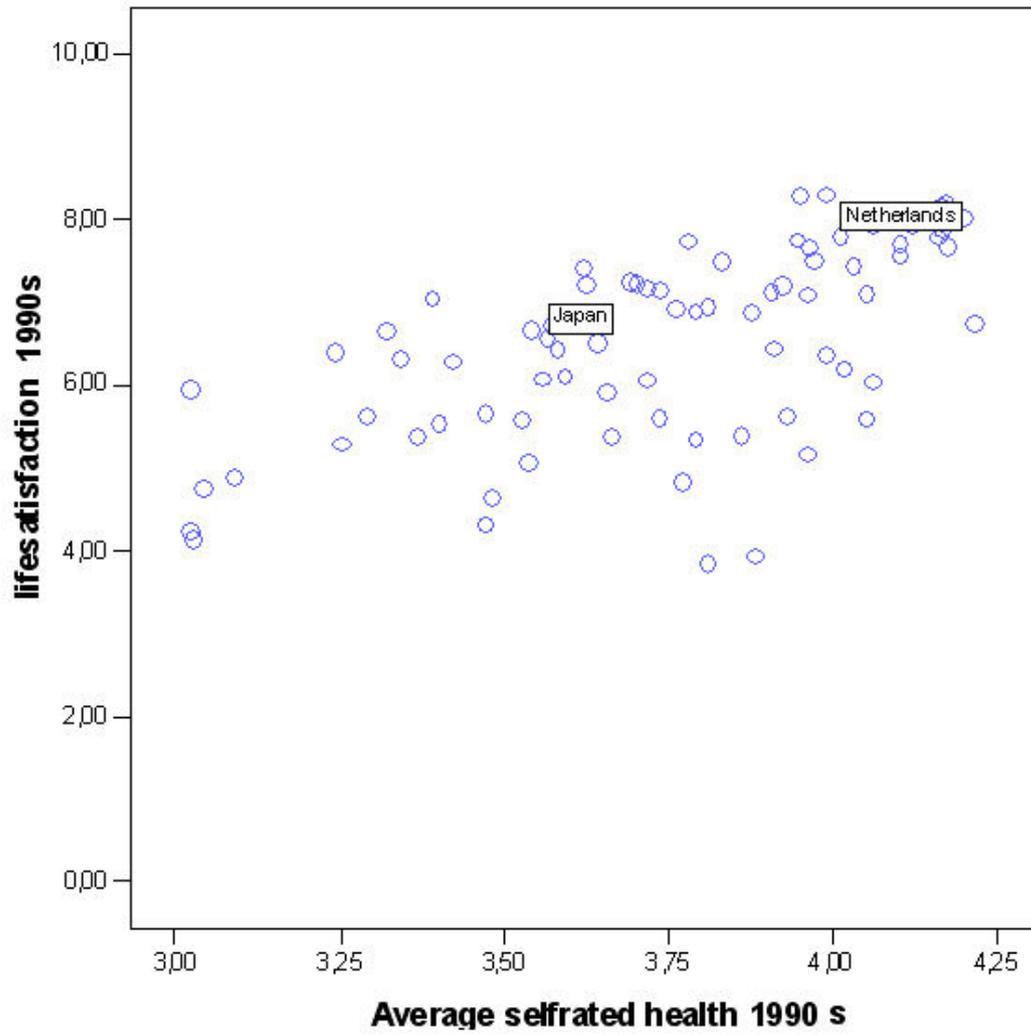
Scheme 7

Happiness and personal freedom in nations

Scheme 8
Happiness and income inequality in nations



Scheme 9
Happiness and self-rated physical health in nations



Scheme 10
Happiness and mental health in nations

