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## DEVELOPMENTS IN SATISFACTION-RESEARCH

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**ABSTRACT.** This paper reviews advances in the study of satisfaction in the context of Social Indicators Research. Five developments are considered: (1) changes in the conceptualization of satisfaction, (2) advances in the measurement of satisfaction, (3) growth of a significant body of comparative data on satisfaction, (4) the map of satisfaction that emerges from these developments, (5) resulting advances in understanding of the appraisal-process, and (6) developments in the use of the satisfaction concept in wider conceptions of welfare.

Social Indicators Research is concerned with the measurement of quality-of-life in society. The focus is on description: how well citizens live ('level' of living) and whether life gets better or not (social 'progress'). Quality of life is conceived in two ways: as 'objective' and as 'subjective' quality of life.

'Objective' quality-of-life is the degree to which living-conditions meet observable criteria of the good life, such as: income security for everybody, safety in the street, good health care, education, etc. In this context the prefix 'objective' refers to the way of measurement. Measurement is based on explicit criteria of success that can be applied by impartial outsiders.

'Subjective' quality of life is how people appreciate their life personally. For example, how secure they think their income is, how safe they feel in the street, how satisfied they are with their health and education, etc. Here the prefix 'subjective' means that criteria for judgement may vary from person to person. In this case, standards are not explicit, and external judgement is not possible.

Subjective appraisals often involve judgements in terms of 'satisfaction'. That is: summary evaluations of how well one likes something. Satisfaction is a central concept in research on subjective quality-of-life. All quality-of-life surveys involve questions on the matter.

This paper is about the concept of satisfaction in Social Indicator Research. It reviews five developments: (1) changes in the con-

ceptualization of satisfaction, (2) advances in the measurement of satisfaction, (3) growth of a significant body of comparative data on satisfaction, (4) the tentative map of satisfaction that emerges from these developments, (5) resulting changes in understanding of satisfaction, and lastly, (6) developments in the use of the satisfaction concept in wider conceptions of welfare.

The emphasis is on advancements in the study of life-satisfaction since the 1980's. Several of my earlier synthetic studies on this subject are summarized.

## 1. DEVELOPMENTS IN CONCEPTUALIZATION OF SATISFACTION

The concept of satisfaction is probably universal. Human ability to reflect on himself and his situation invites to appraisals of like and dislike. All languages seem to have words for satisfaction.

Notions of satisfaction have always figured in conceptions of the Good Life. Typically, subjective enjoyment is seen as a fruit of moral virtue, and hence as an aspect of quality-of-life. See e.g. Bellenbaum (1994) for a review of antique thought.

In Social Indicator Research, a first conceptual advancement was the differentiation between 'subjective' satisfaction and 'objective' quality-of-life. In the practice of survey-research this involved the replacement of multi-dimensional well-being-inventories by a new generation of more specific survey items. At the theoretical level the discussion started why (some) objective qualities of life bear so little relationship with subjective appreciation of it. This development took place in the 1960's.

Further advancements involved the distinction of satisfaction-variants. That differentiation involved first of all a specification by *object of satisfaction*. Satisfaction with 'life-as-a-whole' was distinguished from satisfaction with 'life-domains', such as satisfaction with: work, marriage or housing. Secondly, a distinction by *scope of evaluation* was introduced. 'Overall satisfaction' was distinguished from 'aspect-satisfactions', such as satisfaction with ease of life or with variety of life-experience. Thirdly, *ways of appraisal* were set apart. 'Cognitive' evaluations by means of standards of success

were distinguished from 'affective' satisfaction as apparent in mood. These conceptual differentiations took place in the 1970's.

The 1980's witnessed a diffusion of these innovations. New conceptualizations of satisfaction did not appear on the scene since then.

## 2. DEVELOPMENTS IN THE MEASUREMENT OF SATISFACTION

The above mentioned developments in conceptualization of satisfaction materialized in new questionnaires and survey items. Over the years, these novelties have been scrutinized in various ways. We can now conclude that satisfaction can be measured quite validly and reasonable reliably.

### 2.1. New Ways of Questioning about Satisfaction

In the 1950's, quality-of-life was measured by multi-dimensional inventories which involved questions on subjective satisfactions as well as on objective qualities, such as 'health' and 'activity'. Sum-scores were denoted with names like 'adjustment' (Cavan *et al.*, 1949) and 'morale' (Kutner *et al.*, 1956). In the 1960's, similar composite scales were labeled with the terms 'well-being' (Clark and Anderson, 1967) and 'life-satisfaction' (Neugarten *et al.*, 1961). One of the problems with these scales was that the substantive meaning of their sum-scores remained unclear. Another problem was contamination in the correlation with other factors; because these inventories covered all the good, they correlated with all the good.

In the 1970's, several multiple-item scales were introduced for measuring satisfaction specifically. These were lists of questions on satisfaction with various aspects of life and with life-as-whole. Sum-scores were seen to indicate 'general satisfaction (e.g. Rodgers and Converse, 1975). The main problem of this approach is again in the meaning of the sum-score; though it clearly refers to satisfaction, it is not clear what kind of satisfaction is measured.

One reaction to that problem was the development of even more specific inventories. An example of that kind is Diener's Satisfaction With Life Scale SWLS (Diener *et al.*, 1985), which involves 5 questions about satisfaction with life-as-a-whole, that differ in phrasing, but not in content. Similar multi-item scales were introduced

for measuring satisfaction with specific life-domains. For instance, the Job-Descriptive Index for measuring job-satisfaction (Smith *et al.*, 1969), and an 4-item index of marriage-satisfaction by Palis (1983).

The other reaction to the problem of substantive specificity was sufficing with single questions. That latter approach became dominant, in particular when it appeared that single questions on satisfaction work about equally well.

## **2.2. Growing Trust in Validity of Satisfaction-Reports**

Since the first attempts to assess public satisfaction by means of surveys, there is doubt about the value of responses to standard questions. Skepticism draws on different qualms. Most of these can be discarded by now.

In the phase of multi-dimensional adjustment inventories, the major uncertainty was their substantive meaning. Factor analytic studies showed strong common factors in the responses of such questionnaires, but it remained often obscure what reality these represent. That problem was side-stepped when questions came to focus on satisfaction specifically.

Then, the question arose whether people who say they are satisfied, really feel satisfied. Several claims to the contrary have been raised, in particular about responses to questions on life-satisfaction. Various studies have checked these doubts empirically. Both global validity checks and checks of specific objections have been performed. No evidence of invalidity appears. Elsewhere, I have reviewed validity tests of life-satisfaction items (Veenhoven, 1984, 1993b). The main points are summarized below. See also Section 4.1.

### *Specific validity checks*

One of the misgivings is that most people have no opinion about their satisfaction with life. They would be more aware of how satisfied they are expected to be, and report that instead. Though this may happen incidentally, it appears not 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 life-satisfaction tend to be prompt. Non-response on these items tends to be 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 satisfied they actually are, with how satisfied other people think they are, given their life-situation. If so, people considered to be well off would typically report high life-satisfaction, and people regarded as disadvantaged should follow suit with low satisfaction-reports. That pattern does occur, but it is not general. For instance, in The Netherlands good education is seen as required for a good life, but the highly educated appear slightly less satisfied with life in comparison to their less educated counterparts.

Another objection concerns the presence of systematic bias in responses. It is assumed that questions on life-satisfaction are interpreted correctly, but that the responses are often false. People who are actually dissatisfied with their life would answer that they are contented. Both ego-defense and social-desirability are said to cause such distortions. This bias is seen to manifest itself in over-report of contentment; most people claiming to be satisfied, and most perceiving themselves as happier than average. Another indication of bias is seen in the finding that psychosomatic complaints are not uncommon among the satisfied. These observations are correct, but the findings allow other interpretations as well. Firstly, the fact that more people say to be satisfied than dissatisfied does not imply over-report of satisfaction. It is quite possible that most people are truly satisfied with life (some reasons will be discussed in Section 4.1). Secondly, there are also good reasons why most people think that they are more satisfied than average. One such reason is that we underestimate satisfaction of our fellow-man, because misery is more salient than prosperity. Thirdly, the occurrence of head-aches and worries among the satisfied 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 much different from responses to single direct question posed by an anonymous interviewer.

### *Global validity checks*

The first attempts to assess the validity of responses to questions on satisfaction were tests for *concurrent validity*. It was checked whether satisfaction correlates with factors to which it was expected to be related. Typically, this involved the correspondence between objective situation and the subjective appraisal of it; e.g. income-position and income-satisfaction. Such correlations were typically lower than expected, in particular in the case of life-satisfaction. It took some time to understand why situations deemed beneficial are not always satisfying (to be discussed in Section 4.4.2). That insight caused a shift to substantive validity-testing.

A qualitative approach to assessing substantive validity is considering *face-validity*. That is: close reading of questions and response-scales, in order to assess whether they clearly refer to subjective satisfaction. I myself performed such a check on indicators of life-satisfaction (Veenhoven, 1984, ch. 4). I was met with a lot of dubious items, but noticed that several frequently used questions can hardly be misinterpreted.

A common quantitative method is *congruent-validity* testing. That is: computing correspondence in responses to different indicators of the same thing. Correlations between different questions on life-satisfaction appear to vary between +0.40 to +0.70 (Veenhoven, 1994b, pp. 825–869). A problem with such data is that correlations reflect not only common valid variance, but also measurement error. Recent developments in the use of multitrait-multimethod (MTMM) designs allows separation of these effects. A recent cross-national MTMM-study on satisfaction found an average validity coefficient of 0.94, which is quite high (Sarıs and Veenhoven, 1996; Scherpenzeel, 1995, p. 132).

### **2.3. New Tools to Improve Reliability**

Though specific questions on satisfaction seem to measure what they are supposed to measure, there is evidence that they measure it rather imprecisely. When the same question is asked twice in an interview, responses are not always identical. Correlations are about +0.70. Over a period of a week, test-retest reliability drops to circa +0.60. Though responses seldom change from ‘satisfied’ to ‘dissatisfied’, switches from ‘very’ to ‘fairly’ are rather common. The difference

between response-options is often ambiguous, and the respondent's notion about his/her satisfaction tends to be global. Thus, the choice for one answer or the other 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.

Though most people have an idea of how satisfied they are, 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 satisfaction. 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 satisfied than I used to be?), but it can also involve quick re-evaluation (what is the balance of my sorrows and blessings?). 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 made salient. Respondents in good health will then rate their life-satisfaction somewhat higher, and the correlation of life-satisfaction ratings with health variables will be more pronounced. Several of these effects have been demonstrated by Schwarz and Strack (1987, 1991).

Once a respondent has formed a private judgement, the next step is to communicate it. At this stage, reports can be biased 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 'satisfaction' are more likely to be interpreted as referring to 'contentment' when preceded by questions on success in work, rather than forerun by items on mood. Another source of response-bias is found in considerations of self-presentation and social-desirability. Self-rating of life-satisfaction tends to be slightly higher in personal interviews than on anonymous questionnaires. However, direct contact with

an interviewer do not always inflate satisfaction rating. If the interviewer is in a wheel-chair, modest self-presentation is encouraged.

Much of these biases are random, and are balanced out in large samples. In this case, imprecision of individual observations does not affect the accuracy of satisfaction-averages, which are most crucial in Social Indicators Research. However, random measurement bias does attenuate correlations, and may be partly responsible for the surprisingly low correlations between 'objective' and 'subjective' indicators of welfare.

Still, some biases are systematic; especially the ones produced by technique of interrogation and sequence of questions. Biases of the latter kind affect the reliability of distributional data. In principle they do not affect correlations, unless the measurement of the correlate is biased in the same way (correlated error).

As noted above, measurement bias can be identified by means of 'multitrait-multimethod' studies. The study of Saris identified several method effects indeed. Still, reliability coefficients are in the range of 0.85, which is only slightly lower than the validity coefficients mentioned above (Saris and Veenhoven 1996).

The MTMM approach opens new ways to improve validity and reliability of satisfaction measures.

Firstly, it helps to select the modes of interrogation that involve least bias. For instance, the above-mentioned MTMM-study suggests that satisfaction can best be assessed by means of mailed questionnaires, in which questions on satisfaction are positioned in the middle, which use items that describe the matter at some length and provide a 4 to 5 point response-scale (Scherpenzeel, 1995, pp. 135–136).

Secondly, the obtained coefficients of validity and reliability can be used to estimate 'true' correlations. If artefactually lowered by imperfect validity and/or random error, the correlations can be upgraded (disattenuated). To the extent that they are inflated by correlated error, correlations can be reduced. Such corrections results in a more precise view on correlates of satisfaction (to be discussed in Section 4.4).



## 2.4. Growing Trust in Comparability across Nations

One of the aims of Social Indicators Research is to assess whether quality-of-life in the country is better or worse than in comparable lands. When quality-of-life is measured by satisfaction, this requires that satisfaction ratings are comparable across borders. There is doubt that this requirement is met. Reservations rest on theoretical as well as on methodological grounds.

One source of theoretical objection is the so called 'comparison-theory' of satisfaction. One variant of this theory holds that satisfaction draws on social comparison within countries, and therefore cannot be meaningfully compared between countries. This view on satisfaction as a relative matter implies that people will be equally satisfied everywhere; irrespective of actual quality of living conditions. A related claim is that satisfaction draws on cultural specific standards of success, which have no relevance in different value-contexts. In this view, people can be satisfied in a 'bad' country that idealizes the status quo, whereas people can be dissatisfied in a 'good' country where a critical ideology prevails. More on this theory in Section 5.2.

Another source of theoretical objection is the view that satisfaction results in the first place from outlook-on-life, rather than from quality-of-life. In this view, people can be satisfied in a poor conditions, if culture emphasizes the positive side of things, whereas people can be dissatisfied in good conditions when cynical views prevail. This theory will be discussed in more detail in Section 5.1.

Methodological objections hold that responses to survey-questions about satisfaction do not reflect true satisfaction equally well in all countries. Differences in semantics and variations in response styles would render the scores incomparable.

Studies on life-satisfaction subjected these doubts to several empirical tests (Quweneel and Veenhoven, 1991; Veenhoven, 1991, 1994b, 1995). The results are summarized below. See also Section 4.1.

### *Life-satisfaction no mere comparison with compatriots*

The first theoretical objection mentioned above was that satisfaction is based on comparison within the nation, and therefore cannot meaningfully be compared across nations. This view is based on the

theory that satisfaction results from social comparison. That theory is a 'cognitive' one; it sees satisfaction as the result of a mental calculus. Though plausible at first sight, this theory fails several empirical tests; at least so far as life-satisfaction is concerned. These tests are discussed in more detail in Section 5.2.

An alternative 'affective' theory is that we infer satisfaction from how we feel generally. If we feel fine, we gather that we must be satisfied. If we feel lousy most of the time, we conclude we must be dissatisfied. Unlike conscious comparisons between ideal and reality, affects are largely unreasoned experiences, that probably signal the degree to which basic needs are met. If so, satisfaction ratings reflect something universal, that can be meaningfully compared cross-culturally. This theory will be discussed in more detail in Section 5.3.

Probably, satisfaction can draw both on affective experience and cognitive comparison. The emphasis seems to depend on the object of satisfaction. Cognitive appraisal prevails in case of rather tangible aspects of life, such as satisfaction with 'income'. One's income is well perceptible and good comparable, whereas one's general affect is mostly not very indicative for the adequacy of one's income. On the other hand, affective appraisals will dominate appraisals of life-as-a-whole. The whole of life is not well perceptible and not easily comparable. Really 'calculating' one's life-satisfaction would require the consideration and weighing of a lot of criteria. In this case it is easier to grasp how well one feels generally.<sup>2</sup>

#### *Satisfaction in nation no matter of folklore*

The second theoretical objection was that satisfaction reflects the dominant view-on-life, rather than actual quality-of-life in a country. Consequently, comparing satisfaction-averages would be equating apples and pears.

The theory of satisfaction behind this argument is cognitive as well. Satisfaction is seen as a judgement that depends on cognitive frames of reference. Frames of reference are supposed to be culturally unique. As noted above, the alternative 'affective' theory holds that appraisals of satisfaction draw on hedonic experience in the first place, which is linked to gratification of universal human needs.

Studies on life-satisfaction have checked several predications of folklore-theory as well. As yet, all tests are negative. See Section 5.1.

*No evidence of cultural measurement bias*

Methodological objections involve various claims about differential distortion in responses to questions about satisfaction. Several of these assertions have been tested in studies on life-satisfaction. Again, the results are negative as yet.

*Single semantics.* The most common objection holds 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.

That hypothesis was checked by comparing the rank-orders 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 rank-orders appeared to be almost identical. Next, responses on questions on happiness and satisfaction in two bilingual countries were compared. This did not show linguistic bias either.

*Differential desirability bias.* A second objection is that responses to questions are distorted by social desirability, and that such biases differ across cultures. One of the manifestations would be more avowal of life-satisfaction in countries where happiness ranks high in the value-hierarchy.

The latter claim was inspected by checking whether reported satisfaction is indeed higher in countries where hedonic values are most endorsed. This appeared not to be the case. As a second check, it was also inspected whether reports of general life-satisfaction deviate more from feelings in the past few weeks in these countries; the former measure of life-satisfaction being more vulnerable for desirability distortion than the latter. This appeared not to be the case either.

*Different response-styles.* A third claim is that convention in communication distort the answers dissimilarly in different countries.

For instance, collectivistic orientation would discourage 'very' satisfied responses, because modest self-presentation is more appropriate within that cultural context.

This latter hypothesis was tested by comparing life-satisfaction in countries differing in value-collectivism, but found no effect in the predicted direction. The hypothesis failed several other tests as well.

*Culture-specific concept.* A related claim holds that life-satisfaction is a typical western concept. Unfamiliarity with it in non-western nations is said to involve several effects; responses would be more haphazard, and uncertainty would press to choice for middle categories on response scales, which results in relatively low average scores.

If so, more 'don't know' and 'no answer' responses can be expected in non-western nations. However, that appeared not to be the case. The frequency of these responses is about 1% in all parts of the world.

These first tests did not settle the issue definitively. Yet, for the present we can assume that the observed differences in average life-satisfaction between nations are not entirely artifactual.

#### *Good concurrent validity*

The above objections imply all that there will be little correspondence between 'subjective' satisfaction and 'objective' quality-of-life in the country. However, this prediction is not confirmed by the data. Average satisfaction is clearly higher in the countries that provide the best living conditions.

At the life-domain level this is clearly demonstrated in the correlation between average satisfaction with housing in the country and quality of housing as measured by the average number of persons per household;  $r = -0.46$  in a recent survey of 10 European nations (Veenhoven, 1996).

The same pattern appears in a 22-nation study on life-satisfaction; 78% of the variation in average happiness across nations could be explained by differences in material affluence, social equality, political freedom and access to knowledge (Veenhoven, 1995, p. 54).

### 3. GROWING BODY OF COMPARATIVE DATA

In its first phase, Social Indicators Research was very much concerned with assessing status quo. Now that most problems of conceptualization and measurement have been solved, the emphasis shifts to comparison. Comparisons through time are made to assess whether quality of life improves or not. Comparisons across borders are effected to appraise whether we do relatively well or bad.

#### 3.1. Enlarging Time-series on Satisfaction

The first representative surveys on satisfaction were performed in the late 1940's in some western nations. Most of these pioneer studies were once-only ventures. Their measures of satisfaction were experimental. Hence, few provide a basis for comparison through time.

In the decades that followed, periodical quality-of-life studies came to be institutionalized in several nations. In the USA, standard satisfaction items appeared in regular Gallup-polls since 1948. Satisfaction items are in the core questionnaire of the General-Social-Surveys since 1972. In Japan, questions about life-satisfaction figure in annual surveys on the State of the Nation since 1958. Several West-European nations started periodical quality-of-life surveys in the 1970's; in The Netherlands its Life-Situation-Surveys in 1977 and in Germany its Wohlfahrts-Surveys in 1978. The EU began its bi-annual 'Eurobarometer' surveys in 1973. Since the 1980's this programma also follows satisfaction in the new South-European member-states Greece, Spain and Portugal.

Over the years, these surveys have produced considerable time-series. The longest series are now available for the USA (45 years), followed by Japan (35 years) and the first EU countries (20 years). These time-series are periodically presented in national Social Reports, such as the German 'Datenreport' (SBA 1992) and the French 'Données Sociales' (INSEE 1993). National trend-data on life-satisfaction have been brought together in the 'World Database of Happiness' (Veenhoven, 1992b). There are no comprehensive international overviews of trends in domain satisfaction.

#### 3.2. Increasing Possibilities for Cross-national Comparison

For long, the comparative study of satisfaction was restrained by lack of comparable data. Until the 1980's, most analyses were based

on no more than a dozen developed nations. In the late 1980's, the number of comparable cases grew to 30, among which some developing nations. Now in the early 1990's, we can dispose of comparable data on about 50 nations, varying in degree of socio-economic development. At the turn of the century we will probably have data on satisfaction in roughly 80 nations, and cover the greater part of the world.

*More identical surveys in ever more countries*

The first cross-national surveys involving items on satisfaction were initiated in the USA and effected by Gallup International. In 1948, nine western nations were surveyed (Buchanan and Cantril, 1953). In 1960 and 1975 world-surveys were performed (Cantril, 1965; Gallup, 1975). These were once-only projects. Institutionalization of regular quality-of-life surveys at world level has not occurred as yet. Still, there are promising developments in that direction.

As noted above, periodic quality-of-life surveys came to be held in most of the rich nations since the 1970's. Initially, these surveys provided little opportunity for cross-national comparison of satisfaction, because items differed too much. Over the years, the pool of comparable items has grown however, both as a result of spontaneous consensus and deliberate effort to develop standard questions. In 1991, the International-Social-Survey-Program (ISSP) included the same set of questions on satisfaction in 12 nations (Blanchflower, 1993).

Developments in the cross-national study of values involve new chances for comparison of satisfaction as well. In the early 1980's, the first World Value Survey (WVS1) took place in 22 nations. The standard questionnaire of that survey involves many items on satisfaction; questions on satisfaction with life-as-whole, as well as questions on satisfaction with life-domains. In the early 1990's WVS2 was held in 43 nations. Data are available at ICPSR.<sup>3</sup> WVS3 is planned to cover about 75 nations at the turn of the century. The World Value Surveys are not initiated by a supra-national body. The program is in fact a successful snowball-project that attracts ever more participants from different backgrounds. Probably, the WVS program will lay the basis for an international statistics of satisfaction.

*New techniques for comparing scores on non-identical items*

Another promising development is in techniques for transforming scores on slightly different questions to a common scale. Such techniques can be applied only to items that are substantially equivalent, but differ somewhat in phrasing of the question and answer format. Potentially, such methods can enlarge the pool of data for cross-national comparison. Three methods for conversion are used:

The most simple method is linear transformation. For instance, an average on scale 1–6 can be converted to a score on scale 0–10, by the formula: difference between the observed mean on the original scale and the minimal score on that scale, divided by the difference between maximal and minimal score, multiplied by 10. This method can be applied on responses to items that differ only in length of response scale. It is not suitable for items that differ in wording. This method has been applied to data on life-satisfaction (Veenhoven, 1992b, pp. 115–117).

Another approach is conversion to a common scale by means of judges, who award numerical values to response categories. If agreement between judges is high, average values per response category can be used to compute standard means. If judges of different tongues are involved, this method can also be used to improve the cross-national comparability of equivalent items. This method has also been applied on data on cross-national data on life-satisfaction (Veenhoven 1992b, pp. 108–118).

A last method is the empirical identification of ratio's in responses on different items, and estimating scores on missing items by polation. For example, regression-analysis of average scores on satisfaction-items *A* and *B* showed the following relationship:<sup>4</sup>  $A = 0.75 + 0.79 \times B$ . If in a country, only item *B* has been involved in a survey, but not item *A*, we can still approximate the average score on item *A*. This method requires representative surveys in a lot of countries that include the same variants of questions, preferably in a multiple-trait-multiple method design. Such methods can be applied only if there is an almost perfect statistical relationship; that is, if the cases are close to the regression-line. An exploratory analysis of that kind on cross-national data on life-satisfaction can be found with Veenhoven (1992b, pp. 98–108).

### **3.3. Onset of Follow-up Studies on Satisfaction**

Most studies on satisfaction are synchronic by design. This seriously limits the possibilities for detecting determinants of satisfaction. For instance, if well educated people appear to be most satisfied, that may either mean that education breeds satisfaction, or that the satisfied do better in school. Distinguishing between causes and effects requires panel studies; preferably studies that cover a decade or more.

Panel studies on satisfaction are scarce as yet, and cover mostly periods of a few years. A notable exception is the Berkeley Growth Study, which followed a sample white Americans over the life-time (Sears, 1977). Unfortunately, the indicators of satisfaction used in that pioneering developmental study are not ideal.

Some panel studies on income-development involve questions on satisfaction as well; both the American panel study of income dynamics (ISR, 1972) and the German Socio-Economic Panel (SOEP). The latter panel enters its 10th yearly wave. It has already yielded valuable insights in the stability of satisfaction (Landua, 1992).

As yet, only one panel study has focussed primarily on satisfaction. This is the valuable Victoria Quality of Life Panel (Heady and Wearing, 1992). This panel covered 8 years. Some of its results will be mentioned in Section 4.4.2.

The available longitudinal data on life-satisfaction are brought together in the 'World Database of Happiness', to be described below.

### **3.4. Better Organization of Available Data**

Mere amassing of ever more data does not yield a better view on satisfaction. The findings must be structured in such a way that trends through time and differences across conditions can be identified. For long, there was little system in the data. Synthetic studies required tremendous work; locating relevant publications, ploughing files and reports, converting incomparable scores to common denominators, etc. Much of the available information got lost in the dust of archives and in babel of tongues. In response to this situation, two kinds of data-systems developed; national social indicator systems in which satisfaction data have a place, and international databases on satisfaction.



*Satisfaction-sections in databases of national SI-systems*

As noted above, most social indicator reports include time-series of satisfaction. However, space in reports is limited and satisfaction is not always an issue. Therefore, the data are better accessible if included in a systematic database.

An example of a national database of social indicators is the German Digital Information System on Social Indicators (DISI). This database provides both objective and subjective data on a number of domains. The subjective data concern largely satisfaction. Time-series range from the 1950's and concern satisfaction with life-as-a-whole as well as satisfaction with various life-domains. The dataset is available on computer-file in a user-friendly format.<sup>5</sup>

*International database of life-satisfaction*

Next to these national collections of data on satisfaction, an international catalog appeared on life-satisfaction in particular. This 'World Database of Happiness'<sup>6</sup> involves three units.

The data-collection is based on a *Bibliography of Happiness* (Veenhoven, 1993a), which covers the broad literature on life-satisfaction. Currently, the bibliography contains some 3000 titles. Most are reports of empirical studies. About half of these use acceptable indicators of life-satisfaction. The further catalogs summarize the findings yielded by these latter studies.

Descriptive data on life-satisfaction are gathered in the *Catalog of Happiness in Nations* (Veenhoven, 1992b). Survey findings are presented by question-type; 'raw' distributions as well as averages converted to range 0–10. Within item-sections, the findings are presented by nation and year of investigation. Currently, the catalog covers some 700 studies in 75 nations between 1945 and 1995.

Correlational data on life-satisfaction are accrued in the *Catalog of Correlates of Happiness* (Veenhoven, 1994a). These findings are presented in small standard-abstracts, which briefly describe variables, measurement, population, sampling and statistics. The abstracts are ordered according to subject-matter. Within subject-categories the data are further arranged by nation and time. The subject classification distinguishes between correlates of change in satisfaction (assessed by panel studies) and synchronic correlates. Currently, the collection involves some 650 studies from 75 nations between 1911 and 1995.

As yet, no such databases developed for gathering findings on satisfaction with life-domains or life-aspects.

#### 4. EMERGING MAP OF SATISFACTION

The earlier mentioned advancements in conceptualization, measurement and data-gathering allow the charting of satisfaction in the present day world. Not only can we now reasonably assess how satisfied people are in a lot of countries, but we also get a view on changes in average satisfaction through time. Next to average level of satisfaction we can chart dispersion of satisfaction in countries. Further, correlational data allow a look at the conditions in which people tend to be more or less satisfied.

##### **4.1. Average Level of Satisfaction in Nations**

The first representative surveys were carried out in Western countries and showed unexpected high levels of satisfaction. In the case of life-satisfaction, the happy typically outweighed the unhappy by about 3 to 1. This initial finding raised much doubt the validity of survey questions (as discussed in Section 2.2). However, later studies in third world nations observed a reverse pattern, especially in countries where a large proportion of the population lives at subsistence levels. This sad finding met less skepticism, and rendered the high averages in rich nations more plausible.

##### *True satisfaction?*

Still, some social critics are reluctant to believe that people in modern society really enjoy life. They rather expect anomy and alienation. Consequently, these critics tend to discount reported satisfaction as sullen adjustment. Rather than really enjoying their life, people would just give up hope for better and 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 most realistic. The agonies of modern life are seen to manifest more validly in alarming prevalence of mental disturbance, addiction and suicide. The main counter arguments in this discussion can be summarized as follows:

Firstly, such resignation must give itself away in a discrepancy between the 'adjusted' judgement of life and 'raw' affective experience. The appraisal of general affect is less vulnerable to cognitive adaptation, because it is a direct experience and thus less open to defensive distortion. It is 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 life-satisfaction and last weeks affect-balance. The results do not suggest that people claim to be satisfied with life but actually feel lousy (research reviewed in Veenhoven, 1984, pp. 106–113). Time-sampling of mood-states also shows that pleasant affect dominates unpleasant affect in western society. See e.g. Bless and Schwarz (1984) for a meta-analysis of 18 studies.

Secondly, people are typically dissatisfied with life when they live in miserable conditions. As we have seen, dissatisfaction is the rule in poor third world countries. In western nations life-satisfaction is typically lower where adverse conditions accumulate, such as in persons who are poor, lonely and ill (Glatzer and Zapf, 1984, pp. 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 dissatisfaction. Like 'health', happiness seems to be the normal condition.

#### **4.2. Changes in Average Satisfaction in Nations**

The available time-series show a striking stability in average satisfaction in nations; both in satisfaction with life-domains and in satisfaction with life-as-a-whole. Still there are also cases of profound change.

##### *Trends in domain-satisfactions*

Satisfaction with private domains of life is typically high; at least in modern western nations. The great majority indicates high satisfaction with health, housing, marriage and work. With minor fluctuations, this high level maintained during the last decades.

Satisfaction with public matters is typically lower in modern society, and more variable. To mention a few examples: Satisfaction with democracy increased slightly in the EU between 1974

and 1991, in particular after the fall of communism (Eurobarometer, 1992). In Germany, satisfaction with public safety increased somewhat between 1978 and 1988, but fell back in the early 1990's (Noll, 1994). Satisfaction with environmental protection declined considerably in the 1980's (SBA, 1992, p. 577).

Probably, satisfaction with private domains is higher because satisfaction in these domains is partly inferred from general life-satisfaction and mood, which tend to be high in the nations at hand here (to be discussed in more detail in Section 5.3). Satisfaction with private domains is more stable through time, because it roots more in direct experience. Even if the *Zeitgeist* is critical about marriage, people will still judge their satisfaction with marriage on the basis of how they enjoy life with their spouse. Satisfaction with public matters draws largely on second hand information, and is therefore more sensitive for change in public opinion.

Changes in satisfaction with some domains seem to follow major change in society. For instance, satisfaction with finances decreased somewhat in the 1982 economic recession in most EC nations (Trimp and Winkels, 1989), whereas job-satisfaction rose slightly (Habich, 1989). As noted above, satisfaction with democracy rose in Western-Europe after the deconfiture of communism in Eastern-Europe.

### *Trends in life-satisfaction*

In the USA, average life-satisfaction remained remarkably stable in the post-war decades. In several other western nations average life-satisfaction remained at the same level as well.

Though constancy prevails, there are also cases of change. Average life-satisfaction was low in the war-afflicted West-European countries in 1948, but after the successful resurrection it rose by about 2 point on a 10 step scale. Changes of similar size have been observed in Brazil. Life-satisfaction rose slightly in the South-European nations over the last decade. In Japan a gradual rise in life-satisfaction emerges as well (Veenhoven, 1992b).

Analysis of the minor variations in average life-satisfaction showed little correspondence with major socio-economic developments. The classic example is the USA, where national income doubled, while life-satisfaction remained at the same level. Political events did not

affect American life-satisfaction either; neither the 1962 Cuba missile crisis (Bradburn and Caplovitz, 1965, pp. 122–126), nor the later Vietnam war. In Europe in the early 1980's, the economic recession hardly affected average life-satisfaction either (Chin-Hon-Foei, 1989).

Again there are cases of the contrary as well. The 1973 oil-crisis caused a clear dip in average life-satisfaction in Japan (Veenhoven, 1992b, p. 177). Likewise, in 1962 the tread of a war with China instigated a slight drop in life-satisfaction in India (Cantril, 1965, pp. 90–92). Though the 1982 economic recession in Western Europe did not affect life-satisfaction very much, it had some impact in the nations that provide least social security (Chin-Hon-Foei, 1989, p. 31).

The changes in average life-satisfaction came only recently to the attention. For long the idea prevailed that average life-satisfaction is immutable. That erroneous observation incited several interpretations.

A common methodological explanation was that life-satisfaction is not measured adequately. Respondents would indicate how satisfied they feel they should be in the given circumstances, rather than express their true appreciation of life. As we have seen above this is probably not the case (Section 2.1).

One of the substantial explanations advanced was that average life-satisfaction in a country reflects national character rather than quality-of-life. The later discussion of 'folklore-theory' will show that this explanation is not correct either (Section 5.1).

The best explanation for the observed stability of satisfaction is probably that quality-of-life did not change much in these affluent nations in this era of stability. Though the economy grew substantially, the marginal utility of that advance seems to be modest at this level of opulence (Veenhoven, 1989b).

### **4.3. Dispersion of Satisfaction**

Surveys not only provide information about average *level* of satisfaction, but also inform about its *spread* in the nation. Dispersion of satisfaction is indicative of social inequality. The more citizens differ in enjoyment of life, the more unequal their life-chances apparently are.

Comparative data on dispersion in life-satisfaction are available in the above mentioned 'Catalog of Happiness in Nations' (Veenhoven, 1992b). Exploratory analyses show that differences tend to be greatest in the nations marked by low economic development, little political freedom and great income-inequality (Veenhoven, 1995). Contrary to expectation, dispersion of life-satisfaction appears to be unrelated to state-welfare effort. Though dispersion seems to be lower in welfare-states at first sight, the relationship disappears when economic development is controlled (Veenhoven and Ouweneel, in preparation).

Dispersion of domain-satisfactions has hardly been studied as yet.

#### **4.4. Conditions for Satisfaction**

Social Indicators Research does not suffice with describing the distribution of satisfaction in society at large, but also tries to identify variations in the general pattern; in particular to detect situations in which dissatisfaction prevails. One reason is that social policy needs information about discontent that is not (yet) voiced politically. Another reason is that discontent may reveal social imperfections that could be mended by social reform. A more basic impetus for searching conditions of satisfaction is that it may help to understand how satisfaction differences come about and what they mean.

As yet, most efforts to identify conditions for satisfaction are based on correlational studies. A major weakness of that approach is that correlates can be cause as well as effect. As noted above, the recent use of panel studies allows a better view on causality (Section 2.4).

##### *4.4.1. Conditions for satisfaction with life-domains*

The study of conditions for satisfaction began with analysis of correlates of domain-satisfactions, in particular correlates of marriage-satisfaction and job-satisfaction. Initially, the aim of was to discern empirically what a good marriage and a good job are like. But by lack of unequivocal findings, the emphasis shifted to exploration of contingencies; what kind of people flourishes best in what kind of marriages and jobs. Most studies in this tradition do not fit the aims of Social Indicator Research. The emphasis is typically not on

comparison across time and nations and data are often not based on general population samples.

Studies on conditions for satisfaction in the Social Indicator tradition started with the analogous expectation that 'subjective' satisfaction is based on quality of living-conditions that appears in 'objective' indicators. The more satisfied people are with their marriage, health or job, the better their life in these domains should be. The great surprise was that only a part of the variance in satisfaction can be explained that way. For instance in Germany in 1980, income-level explained only 15% of the variation in income-satisfaction (Glatzer, 1984, p. 64).

The most common explanation for this phenomenon is in terms of comparison theory, which sees satisfaction as the result of a match between standard and reality. In this line, it is commonly assumed that standards of comparison shift continuously. Adjustment of standards to reality would produce the pattern of low correlations. Cultural differences in standards would cause variability in correlations. This theory is discussed in more detail in Section 5.2. The explanation is probably most appropriate for distant matters, such as satisfaction with government. In such cases, appraisal has little ground in direct experiences and depend largely on socially constructed opinion. The explanations seems less applicable for satisfaction with more palpable matters, such as with health and with marriage. Though we can adjust to some extent to illness and marital conflict, few will really enjoy such conditions.

A more recent explanation holds that domain-satisfactions derive only partly on the reality-objects concerned. Next to bottom-up appraisals, top-down inferences would be involved (Diener, 1984). Satisfaction with life-domains is partly derived from satisfaction with life-as-a-whole. For instance, a happy person will be satisfied with his skimpy job, whereas an unhappy person will be dissatisfied with a good one. The former reasons that his job cannot be too bad, because he feels fine, whereas the latter seeks exempt for his discontent. Panel analysis by Heady *et al.* (1991) shows strong top-down effects. This discovery implies that conditions for domain-satisfaction concur largely with conditions for life-satisfaction.

#### 4.4.2. *Conditions for Satisfaction with Life-as-whole*

A lot of studies have tried to discern circumstances in which people take more or less pleasure in life. Review-studies have been done by Veenhoven (1984), Argyle (1987) and Myers (1992). The results can be summarized in three subject-categories: (1) life-chances; that is, opportunity-structures in the living-environment, (2) art-of-living; to wit, personal abilities to exploit given chances, and (3) life-events; happenings, partly due to good or bad luck. Social Indicators Research is typically concerned with life-chances. The relation of life-satisfaction to art-of-living and life-events is a typical issue in studies on 'health' and 'adjustment'. Contingencies between these levels have received little systematic attention as yet.

##### *Life-chances*

The life-chances studied in relation to life-satisfaction are typically social opportunity-structures; environmental matters such as climate and scenery have received little attention as yet. Social opportunities for a satisfying life are implied in both qualities of society at large and in one's social position in society. A noteworthy discovery is that conditions for satisfaction differ more across societies than within.

*Quality of society.* Life-satisfaction is typically greater in the economically most *prosperous* nations. The relationship follows a convex pattern; among poor nations the relationship is more pronounced than among affluent countries. This is in line with the law of diminishing returns.<sup>7</sup> The difference can partly be explained by sufficiency of nutrition, but not entirely. Apparently material welfare provides more gratifications than mere subsistence.

Life-satisfaction is also higher in the most socially *equal* nations. That difference is partly due to the greater economic welfare of the most equal nations. However, the relationships with gender-equality and income-equality remain quite strong after control for income per capita. Social inequality involves greater risk of adverse life-events and is a source of frustration in itself. The correlation may also be a reflection of related matters, such as suboptimal allocation of human resources and a culture of intolerance.

Average life-satisfaction is also greater in nations where *human rights* and *political freedom* are highly respected. This difference is



partly due to the higher income in these countries, but not entirely. Effects of political freedom as such can be better protection against injustice and assault. Freedom can also make that people choose lifestyles that better fit personal needs and situational opportunities.

Furthermore, life is found to be most satisfying in the countries that provide the best *access to knowledge*, as measured by literacy, school-enrolment and media attendance. The difference is largely independent of economic wealth. As of yet, it is still unclear as to what extent knowledge is a source of satisfaction itself and how it works out on other conditions for happiness.

One of the problems in assessing the impact of societal characteristics is the limited number of countries on which comparable data on life-satisfaction is available. For that reason, spurious effects and conditional correlations can hardly be demonstrated as yet. A related problem is that lack of time-series hinders the distinction between cause and effects. However, we have seen in Section 3 that the amount of data is growing every year. Another problem is that current measures of societal quality are very limited; in particular the indicators of the 'cultural climate' in countries. Developments in the cross-national study of values promises new indicators of value-climate in nations (e.g. Schwartz, 1994).

*Position in society.* Numerous studies all over the world have considered differences in life-satisfaction across *age* and *gender*. The differences tend to be small and variable. At this point it is not established what contingencies are involved; for example, why are males slightly happier in some countries and females in others.

Another commonly investigated issue is the relationship of life-satisfaction with *income*. 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 correlation tends to be. This pattern does not fit the theory that life-satisfaction derives from social comparison, but rather suggests that it depends on the gratification of basic needs. This implication will be discussed in more detail in Section 5.2.

The pattern of correlation with *education* 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 education. This does not mean that education itself breeds dissatisfaction. As we have seen, the most educated countries are the happiest. The slight dissatisfaction 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.

There is more consistency in correlation between *occupation* and life-satisfaction. All over the world, professionals and managers tend to be the most satisfied with life. It is not clear as to what extent this difference results from the rewards of work-tasks, related advantages, or selection.

Together, the above socio-demographic variables explain mostly no more than 10% of the variance in individual life-satisfaction; at least in rich nations.

*Participation in society.* Next to social-status matters, social-participation has been considered. Life-satisfaction tends to be higher among persons who have *paid work*, than among the unemployed. However, housewives are not less satisfied. Neither does retirement make life less satisfying. Life-satisfaction is more consistently related to participation in *voluntary organizations*. Members of churches, clubs and political parties are more satisfied than non-members. The same pattern appears in organizational activity.

Life-satisfaction is also related to presence and quality of *intimate ties*. However, not all kinds of ties are equally related to life-satisfaction in all countries. In western nations, *marriage* is more important than contacts with friends and relatives. Studies in western nations show that *children* do not add to the life-satisfaction of married persons. However, among those who have children, life-satisfaction is closely related to quality of contacts with their children.

Together these variables explain typically another 10% of the variation in life-satisfaction in developed nations.

### *Art-of-living*

The strongest correlations concern personal capability in dealing with the problems of life. Life-satisfaction tends to be greater among persons who are in good *physical health* and who have a lot of *energy*. The satisfied also share characteristics of good *mental health* and *psychological resilience*. Curiously, life-satisfaction tends to be

unrelated to intelligence; at least to school-intelligence as measured by current IQ-tests. However, social skills do differentiate between satisfied and dissatisfied. High life-satisfaction is typically accompanied by social *assertiveness* and good *empathy* attributes.

With respect to personality, the satisfied tend to be socially *extravert* and *open* to experience. There is a notable tendency towards *internal control* beliefs, whereas persons who are dissatisfied tend to feel they are a toy of fate.

Much of the findings on individual variation in life-satisfaction boil down to a difference in *ability to control ones environment*. It has not been established as to what extent this pattern is universal. Probably, these characteristics add more to satisfaction in modern individualized western societies.

The common variance explained by such personal variables tends to be around 30%.

### *Life-events*

The effect of life-events on life-satisfaction 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 and Wearing (1992).

First of all, this study showed that the course of life-events is not the same for everybody. Some people find troubles over and over again; they have accidents, get laid off, quarrel with family, fall ill, etc. On the other hand there are also people who are lucky most of the time; they meet nice people, get promoted, have children who do well, etc. These systematic differences in the course of events depend to some extent on ones place in the social opportunity-structure (life-chances) and on personal competence. Favorable events appeared to happen more often to persons who were well-educated and psychologically extraverted. Adverse events occurred less to people with good intimate attachments, but more to neurotics. Both favorable and unfavorable events happened more to persons who were young and psychologically open.<sup>8</sup>

The study also demonstrated that the course of life-events affects satisfaction-with-life. Firstly, it was found that the balance of favorable and adverse events in one year predicts reported life-satisfaction in the next year. The more positive that balance, the greater the satisfaction with life. Life-events explained some 25% of the differ-

ences in life-satisfaction, of which about 10% independent of social position and personality. Next, longitudinal analysis indicated that change in characteristic pattern of event was followed by change in life-satisfaction. Respondents who shifted to a more positive balance, became more satisfied with their life.

## 5. ADVANCES IN UNDERSTANDING APPRAISAL OF SATISFACTION

Since antiquity there is speculation about inner processes that underlie satisfaction. Some of the theories imply that subjective satisfaction has hardly any link with real quality-of-life, and provides for that reason no meaningful social indicator. By lack of empirical data, these disputes remained long unresolved. Presently, there is solid ground to reject these theories.

### 5.1. State or Trait?

Common sense holds that satisfaction is a 'variable state' that results from continuous evaluation of life. This view is contested by the theory that satisfaction is a 'fixed disposition' to react either positive or negative. This theory figures at the individual level as well as the societal level. Both variants imply that satisfaction or dissatisfaction says little about real quality-of-life.

#### *Personal character trait?*

The individual level variant sees satisfaction as a personal trait; a general tendency to like or dislike things. This tendency can stem from inborn temperament, as well as early experience. It is believed to shape the perception of separate life-experiences, as well as the evaluation of life-as-a-whole. In this view, improvement of living conditions will not result in greater satisfaction, because the evaluative reaction will remain the same. The discontented will always be disgruntled and satisfied will always see the sunny side of things. Hence, satisfaction is of little value as a social indicator.

*Origin.* The idea of satisfaction as a fixed disposition emerged as an answer to several puzzling research results. One of these was that the discovery of a major common factor in satisfactions with different things; people who are satisfied with their job tend to be satisfied with their marriage and the weather as well (mentioned in Section

2). Another riddle was the earlier mentioned finding that subjective satisfaction is only dimly related to 'objective' social positional variables, whereas satisfaction is closely linked to personality variables (remember Section 4.4). The explanation was that people do not really 'judge' life, but 'replicate' a preconceived idea.

*Evidence.* Elsewhere, one examined the tenability of this theory for life-satisfaction. It was checked whether life-satisfaction is (1) temporally stable, (2) cross-situationally consistent and (3) innerly caused. None of this appeared to be the case (Veenhoven, 1994b).

Firstly, life-satisfaction does not remain the same over time; particularly not over the length of a life-time. Individuals revise their evaluation of life periodically. Consequently, life-satisfaction changes quite often; both absolutely and relatively towards others.

Secondly, life-satisfaction appears not insensitive to change in living-conditions. Improvement or deterioration is typically followed by a rise or decline in the appreciation of life. This appears for instance in the sequela of widowhood and divorce.

Thirdly, satisfaction is not entirely an internal matter. It is true that evaluations of life are influenced by personal dispositions, such as optimism or downward comparison. However, these inner alignments modify the impact of environmental effects rather than overshadow them.

#### *National character trait?*

The societal variant of this theory (folklore-theory) assumes that individual tendencies to like or dislike life are part of a common national-character. Some cultures would tend to have a gloomy outlook on life, whereas others are optimistic. Such tendencies would root in experiences of earlier generations, and be passed through socialization. As a result, current satisfaction in a country would say more about its welfare in the past than about its present welfare (e.g. Inglehart, 1990, p. 30).

*Origin.* This theory roots in a tradition of cultural relativism. It found support in unexpected differences in average life-satisfaction between nations, such as the low level of satisfaction in France and the high level in the USA. The idea was also nourished by the first time-series on life-satisfaction. As mentioned above, life-satisfaction

remained at the same level in postwar USA, in spite of a doubling of the national income.

*Evidence.* One checked several predictions of folklore-theory about life-satisfaction as well (Veenhoven, 1992b, pp. 66–79; 1994, 1995). The theory did not stand these tests.

A first implicated hypothesis is that differences in average life-satisfaction are unrelated to variation in objective quality of life. Five such differences were considered: economic affluence, social equality, political freedom and intellectual development. As we have seen in Section 4.4, these nation-characteristics explain 78% of the differences in average life-satisfaction between nations. As noted above as well, there are examples of rise and drop in average life-satisfaction following improvement and decline of quality-of-life in the country (Section 4.2).

One also considered the residual variances in regression charts. If French national character would tend to understate satisfaction and the American way to overstatement, we can expect to find the French less satisfied than predicted on the basis of objective welfare and Americans more satisfied than their situation justifies. No such patterns appeared. Latin countries are not systematically less satisfied than their level of living would predict. Nor is satisfaction in Anglo-Saxon countries typically above that line.

Still another test involved the analysis of life-satisfaction among migrants. If life-satisfaction reflects the quality of the conditions one lives in, life-satisfaction of migrants in a country must be close to the level of autochthons. If, however, life-satisfaction is a matter of socialized outlook, the satisfaction 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, The Netherlands and Yougo-Slavia. In Germany, migrants from Greece, Italy, Spain, Turkey and Yougo-Slavia. Folklore theory failed this test as well.

## **5.2. Relative or Not?**

If satisfaction is a mental state rather than a trait, the next question is how that state is produced innerly. The traditional answer is that satisfaction results from comparison. It is assumed that we continuously

assess correspondence of life-as-it-is, to notions of how-life-should-be. The smaller the gap between reality and ideal, the more satisfied we would be. Standards of how life-should-be are seen to draw on perceptions of what is feasible and on comparison with others. These standards are thought to adjust continuously. 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 satisfaction; neither at the individual level, nor the societal level.

At the individual level, this theory predicts that satisfaction is a short-lived phenomenon. We would be satisfied when life comes close to ideal, but in coming closer to ideal, we would tend to set higher demands and end up as equally dissatisfied as before. Likewise, social comparison would impede lasting satisfaction. When we have surpassed the Jones, reference drifts upwards to the Petersons, and we feel dissatisfied again. This theory has many variations. See Veenhoven (1991, 1995).

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

These implications disqualify satisfaction as a Social Indicator of quality-of-life. In this view, people can be satisfied in adverse conditions because they do not know better, and dissatisfied in beneficial conditions because of inflated aspirations.

*Origin.* This view on satisfaction dates back to Stoic philosophy. Contemporary, it roots in reference theory.<sup>9</sup> The underlying cognitive vision fits the mainstream of present day psychology.

*Empirical evidence.* Some often cited investigations claim support for this theory. Easterlin (1974) saw the theory proved by his observation that life-satisfaction is as high in poor countries as it is in rich countries. Brickman *et al.* (1978) claim proof in their observation that lottery-winners are no more satisfied with life than paralysed acci-

dent victims. Elsewhere, one scrutinized these sensational claims (Veenhoven, 1991). The results of that enquiry can be summarized as follows:

First of all, life-satisfaction differs in poor and rich nations. Neither are accident victims equally satisfied as lottery winners. The differences may be smaller than one might have thought, but they exist undeniably.

Some other implications of theory that life-satisfaction is relative failed an empirical test as well. One such implication is that changes in living-conditions, to the better or the worse, do not have a lasting effect on life-satisfaction. As noted above, there is good evidence that we do not adjust to everything; for instance, we don't adjust to the misfortune of having a handicapped child or the loss of a partner.

Another implication is that earlier hardship favors later satisfaction. This hypothesis does not fit the data either. For example, survivors of the Holocaust were found to be less satisfied with life 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 life-satisfaction 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. Again, the prediction is not confirmed by the data. The correlation is high in poor countries and low in rich ones.

*Theoretical flaws.* The theory that life-satisfaction is 'relative' assumes that life-satisfaction is a purely cognitive matter and does not acknowledge affective experience. It focusses on 'wants' and neglects 'needs'. Contrary to wants, needs are not relative.

### **5.3. Calculus or Inference?**

The above results fit a new theory of how we appraise satisfaction. According to this theory satisfaction judgements can be manufactured in two ways: by 'calculating' success on the basis of standards, and by 'inferring' from how one feels generally. Practice would depend on availability of relevant cues, which is not the same for all objects of evaluation. In the case of life-satisfaction, the available cues would entice affective inference.



*Satisfaction as calculated contentment*

Utilitarian philosophers spoke a happiness as the “sum of pleasures and pains”, established in a “mental calculus”. This view on the appraisal process is still dominant nowadays. Satisfaction 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 and Withey (1976) suggested that satisfaction with life-as-a-whole is calculated on the basis of satisfactions with life-aspects. We would 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’. On the basis of the sub-evaluations we would strike an overall balance, by computing some weighted average of satisfactions, in which differences in importance of domains and standards are acknowledged. Andrews and Withey demonstrate high correlations between satisfaction with life-as-a-whole and life-aspect appraisals, but found no evidence for the presumed weighing.

Michalos’ (1985) Multiple-Discrepancy-Theory also depicts life-satisfaction as the balance of various sub-evaluations. In this case, sub-evaluations are assessments of discrepancy between perceptions of how-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 feels is ‘deserved’. Michalos provides ample evidence that small discrepancies are accompanied by high satisfaction. Multiple regression analysis showed that life-satisfaction is primarily a function of perceived discrepancy between reality and ‘wants’.

Though satisfaction with life-as-a-whole is statistically correlated with appraisals of various aspects of life, it has not been established that life-satisfaction 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 life-

satisfaction on perception of have-want discrepancies is greater than the effect of gap-size on life-satisfaction (Heady *et al.*, 1991).

### *Satisfaction inferred from affect*

A rival theory is that satisfaction draws on global indications of quality-of-life. An internal cue of this kind is how well one generally feels; if pleasant affect dominates, life can't be bad (affective inference). An external cue is how satisfied other people think one is (reflected appraisal). The available evidence suggests that internal affective cues are far more important than external social ones. Life-satisfaction is much more related to matters of mood than to reputation. Reports of daily affect correspond closely to satisfaction with life-as-a-whole, whereas peer-ratings of life-satisfaction correlate only modestly with self-ratings.

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 and Strack, 1991).

### *Appraisal strategy differs with object of satisfaction*

The evaluation-process is not identical for all objects. Affective inference is the rule in evaluations of life-as-a-whole, and piecemeal calculations most common in some life-domain evaluations.

Schwarz and Strack (1991) argue convincingly that appraisals of life-as-a-whole take bearings in affective experience. This facilitates the judgmental task. Affective experience is typically poignant, and most people know fairly well how they feel generally. The alternative of 'calculating' life-satisfaction 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, some people sometimes choose to follow this more difficult road. A condition that encourages calculative appraisal is uncertainty about typical mood, which is common in depression. An other thing that invites to calculative appraisal is

availability of salient information for comparison, such as the earlier mentioned interviewer in a wheelchair.

Evaluations of specific aspects of life can less well be derived from estimates of general affect. For instance, satisfaction with ones income. Good or bad mood may as well stem from experience in other domains, such as marriage and health. On the other hand, calculative appraisal is less difficult in this case. The field is easier to oversee and the standards are fairly evident. Consequently, studies on income-satisfaction show that people judge their income by means of comparison-standards and that reference tends to drift (Van Praag *et al.*, 1979). There are also indications for comparison processes in satisfaction with health and satisfaction with job.

Harking back to the above discussion on the theory that satisfaction is relative, we can now conclude that some domain-satisfactions are relative indeed, but general life-satisfaction is not.

## 6. ROLE OF SATISFACTION IN CONCEPTIONS OF SOCIAL WELFARE

The traditional view holds that subjective satisfaction is the result of the objectively Good Life; 'objective' both in the sense of moral truth and external accessibility. In early European moral philosophy, the Good Life was conceived primarily in terms of individual behavior: the Good Life was a morally proper way-of-life. In this view, satisfaction was the fruit of personal virtue. With the Enlightenment emphasis shifted to collective living conditions. Satisfaction came to be seen as an individual manifestation of social welfare; the Good Life was more or less equated with the Good Society.

Since then, many attempt have been made to specify what social welfare is precisely, and to ground such conceptions in moral and social theory. The resulting notions of social welfare are at the basis of current social indicator systems.

Substantially, current conceptions of social welfare have much in common; at least in western society. It is generally agreed that the good life requires a decent material standard of living, safety in the streets, warm social contacts and assess to 'higher' culture. Current difference of opinion is largely on matters of degree, such as the size of the minimum-income. In spite of this political consensus on 'what' should be considered welfare, there is philosophical dispute

on 'why' we feel so. Legitimations of welfare conceptions are much contested.

Welfare-conceptions can be grounded in three ways: (1) in moral principle, (2) in public consensus and (3) in human nature.

The first way is the most common one. Most welfare-conceptions derive from moral axiom; much like the biblical Ten Commandments. An evident disadvantage of this *principalist* legitimation is that it rests on conviction rather than reasoning. Contemporary conceptions of welfare handle the problem in two ways:

One way is to abandon claims of objective truth, and suffice with current ideological consensus. This is the pragmatic *consensualist* approach.

The other way is to seek solid ground in universal prerequisites for human functioning. This can be called the *naturalist* legitimation.

The concept of satisfaction serves different roles in these three welfare conceptions. Consequently, the use of satisfaction data is not identical in all social indicator systems.

### **6.1. Satisfaction in Principalist Conceptions of Welfare**

In this approach, social welfare is the degree to which given values are realized in society. The French Revolution proclaimed 'Liberty', 'Equality' and 'Brotherhood' as core-values. Contemporary creed has been characterized as 'Having', 'Loving' and 'Being' (Allardt, 1971).

#### *No necessary criterion*

In this conception, satisfaction does not necessarily signify welfare. Its role depends on the value attached to satisfaction as such, and on its effects on other valued matters. Satisfaction is irrelevant for welfare if hedonism is rejected on principle, and if no secondary effects are seen to be involved. Satisfaction has no place in social indicator systems based on such tenets. Possibly for that reason, satisfaction questions are absent in Swedish Level-of-Living surveys.

#### *Criterion of welfare if valued as such*

If however, it is believed that we can better be satisfied than dissatisfied, satisfaction is a criterion in the principalist conception of welfare. The most radical position in that line is Utilitarianism.

In that moral doctrine, life-satisfaction is the ultimate criterion for judging good and bad. The best society is the one that produces “the greatest happiness for the greatest number”. Freedom, equality and brotherhood are of interest only to the extent that they contribute to general satisfaction.

In this view, satisfaction is the core-criterion of social welfare and hence the prime indicator of social progress; like national income per capita serves as the prime indicator of economic success. General life-satisfaction suits that purpose better than specific domain-satisfactions.

Though well known, this position is not much accepted nowadays. Consequently, no social indicator system uses satisfaction as its core. Still, it figures in other roles.

#### *Facilitator of welfare if instrumental*

If not condoned as a merit in itself, satisfaction can still figure as an instrumental value in principalist conceptions of welfare. Satisfaction can serve that role only if its effects on adhered end-values are well understood; like in the case of consequences of inflation for economic growth.

However, this is not the case as yet. There is wide difference of opinion on the consequences of satisfaction. On one hand, there are claims that satisfaction is detrimental to highly values matters; for instance, harmful to freedom because it renders people uncritical, and pernicious to brotherhood because it feeds selfish hedonism. On the other hand, it is asserted that satisfaction involves positive consequences, e.g., by broadening perception and encouraging social bonds. Preliminary empirical explorations of consequences of life-satisfaction support the positive view (Veenhoven, 1988, 1989a).

As yet, satisfaction is hardly used in this instrumental role. Probably, it will be used for that purpose in the future, when we know more about its effects. Whatever effects found, the use of satisfaction in this context will always depend on the end-values endorsed. What variants of satisfaction are most appropriate depends on the particular terminal values as well.

## **6.2. Satisfaction in the Consensualist Conception of Welfare**

The consensualist approach acknowledges moral relativism, and grounds on shared values. In this view, social welfare is the degree

to which a society realizes its own goals. Criteria for social welfare are the issues on the political agenda. The task of Social Indicators Research is to assess success in meeting these criteria. As goals and priorities change over time, social indicator systems have to change as well; emerging issues should be timely included. The German social indicator system is based on that view of welfare (Zapf, 1994).

In this approach, the concept of satisfaction figures in different roles.

#### *Criterion of welfare if generally adhered*

In the consensualist approach, satisfaction can serve as a criterion for welfare, if satisfaction is deemed desirable generally. That is typically the case in modern western society; value-surveys show high ranking of hedonic values<sup>10</sup> (e.g. Harding, 1985). However, in other times and places, abstinence and suffering may be held in more respect. In such contexts, satisfaction is not seen as a blessing, but rather as a moral tread. Hence satisfaction does not always mark social welfare in the consensualist approach.

In this role, satisfaction with life-as-a-whole is more important than satisfaction with specific life-domains.

#### *Messenger of public preference*

In the consensualist approach, the concept of satisfaction also plays a role in reading the public mind. It is used to identify issues of interest and to estimate their urgency. The greater the dissatisfaction with something, the more priority it is seen to deserve. Trends in satisfaction guide the continuous adjustment of welfare definitions.

Here, satisfaction is again not a criterion in itself, but a messenger. Dissatisfaction in particular marks welfare-deficits. Specific domain-satisfactions suit this purpose mostly better than general life-satisfaction.

#### *Indicator of goal-realisation*

In the same vein, satisfaction is used as an indicator of advance in meeting public demands. If people are satisfied on an average, the 'general will' is apparently satiated. If not, effort has to continue. For instance, proper housing is measured by average satisfaction with dwelling, and suitable income by income-satisfaction. Not only

is this a simple way of measurement, but it also helps it to bypass the difficult problem of defining what a 'good' house or income is like.

In this role, satisfaction figures as an indicator of something else. Even if not valued in itself, it still helps to pinpoint social problems, in the way smoke indicates fire. In this context, satisfaction with specific domains will mostly be more informative than satisfaction with life-as-a-whole.

### *Check on soundness of public preference*

In the margin of this approach, satisfaction also figures as a validation criterion. In line with the classic assumption that the objective good feels subjectively fine, it is expected that success in realizing valued matters will manifest in satisfaction. If not, there must be something wrong.

As noted above, empirical research has defied that expectation in many cases; remember the low correlation between objective and subjective indicators discussed in Section 4.4. The common reaction to these disturbing findings is denial; typically by discounting investigations on methodological grounds. Measures would be inadequate (remember Section 2.2), samples would be unrepresentative, reports selective, etc. An other response is looking for harmless explanations, for instance by suggesting that the merits of true welfare are not sufficiently perceived by all citizens or that ideological pluralism reduces correlations.

A more revisionist reaction is doubting the wisdom of public opinion, and suggesting the possibility that highly values matters may be irrelevant or even harmful. For instance, that continued economic growth will not really improve life and may even impair mental and physical health. This latter reservation opens the way to an alternative 'naturalistic' approach to social welfare.

### **6.3. Satisfaction in the Naturalistic Conception of Welfare**

The naturalist view sees social welfare as the degree to which society is habitable for the human kind. In this context, I myself used the term 'livability', which is the 'degree to which the provisions and requirements of society fit with the needs and capacities of its members' (Veenhoven, 1992b, p. 14). A livable society is not necessarily

an ideal society. It may fail to live up to ideological demands, but still meet essential psycho-biological needs.

In the naturalist view, welfare is living in accordance with Human Nature. As humans cannot live solitary, their individual welfare requires a functioning society. Any society must provide some basic conditions. A first requirement is the meeting of subsistence needs, such as for food and shelter. Another class of necessities is the gratification of mental urges, such as the need for respect and coherence. Next to these universal requirements, societies must meet unique demands. For instance, specific features of a society must fit with the variations on the human pattern it produces in socialization. For instance, a society that bolsters achievement motivation is not livable if it does not provide opportunities for excellence.

A problem in this approach is that one cannot specify conditions for the good life in much detail.<sup>11</sup> By their nature, humans are very adaptable. Hence they flourish not only in the social and environmental conditions where the species emerged (hunter/gatherer bands in the African savanna), but in many different contexts as well. It is not possible to reason in advance which variants of modern society will fit human nature best. However, fit can be inferred afterward, by assessing how well people thrive in different conditions. If people thrive well, society is apparently livable. 'Thriving well' is another term for 'faring well', hence 'welfare'.

The degree to which biological organisms thrive in a habitat is first of all reflected by the spread of the species and by the individual health of specimen. In higher animals it also manifests in affective experience, the basic function of which is to keep out of adverse conditions and to foster moves to beneficial ones. In humans, welfare also manifests in its conscious appraisals.

### *Sign of welfare*

Social welfare in the sense of 'livability of society' is not directly observable; we cannot see 'fit' between human nature and habitat. Hence, we must do with manifestations of good fit. Satisfaction is one of these symptoms. It is a sign that people flourish in a society, and hence an indicator of social welfare. Satisfaction is not welfare itself, but its natural concomitant.

Satisfaction is only one of the manifestations of human thriving. Other indications are physical and mental health. Deficient livability



of society will undermine health in various ways and drive relatively much of its inhabitants in premature death. Relatively much people will develop mental disturbances.

Satisfaction is no perfect indicator of human thriving. First of all, affect is no sure sign of prospering; affective disturbance is quite common. Secondly, satisfaction is no pure 'intuitive' appraisal. It involves also reasoned appraisals, which are liable for self-deceit; both individually and collectively. The health indicators provide no infallible compass either. Hence, we do wise to consider these indicators in combination and conclude that a society is apparently livable if its members live long, healthy, and satisfied.

In this view, not all variants of satisfaction are equally indicative of psycho-biological welfare. Unreasoned affect is more indicative of fit between nature and environment than calculated contentment. Given the discussion in Section 5.3, this marks global satisfaction with life-as-a-whole more indicative of welfare than satisfaction with separate life-aspects or -domains.

#### **6.4. Shift in Conception of Welfare?**

Past development of thought on Social Welfare and related change in Social Indicators Research can be described as a gradual shift from principalist conceptions to a consensualist approach. Future development will probably involve a growing emphasis on the Naturalist view on welfare. Several conditions sway to such a switch.

One such condition is that support for principalist conceptions declines in modern society. Cultural pluralism is inherent to modernity. Politically, this manifests in declining support for great ideologies; philosophically, in post-modernism. Admitted, there are religious-fundamentalist revival crusades, but these movements seem to remain in the cultural periphery. Dispute with these counter-movements discourages the calling on belief.

Modernization could undermine consensualist conceptions of welfare as well. Though consensus is fairly great in current western society, it is likely to decline when cultural pluralism set on. Globalization will reveal disagreements with cultures where different values are adhered. The discussion about inclusion of gender-equality in the Index of Human Development may be exemplary. Even if modern values win in the long run, discussions will demon-

strate that there is no unanimity just yet. The more vocal the dissent, the less ground for consensualist legitimation.

While the above societal developments enhance the market-position Naturalist conceptions of welfare, scientific advancements raise its substantial attractiveness. Theoretically, the approach has won credibility for two reasons. One is that the biological-adaptive view on man and society revives in modern sociology and psychology, and is currently applied in ethics as well (Ruse, 1986). Another source of credibility is the advances in understanding of satisfaction reviewed in this paper, in particular the falsification of theories that mark satisfaction as irrelevant (remember Section 5). Empirically, the growing body of data on life-satisfaction provides the Naturalist approach a badly needed empirical tool.

#### NOTES

<sup>1</sup> This paper was prepared during my stay at the Wissenschafts Zentrum für Sozialforschung Berlin (WZB), November 1994.

<sup>2</sup> Affectively based appraisals of life-satisfaction may be backed up later by adjusting aspirations. Empirical evidence can be found with Heady *et al.* (1991).

<sup>3</sup> International Consortium for Political Science Research, File No. 6160, Codebook by Inglehart (1994).

<sup>4</sup> In this example, item *A* is Cantril 0–10 rating of life between ‘best possible’ and ‘worst possible’, and item *B* a question on satisfaction with life-as-a-whole, rated on a 0–10 numerical rating scale (Veenhoven, 1992b, p. 104).

<sup>5</sup> Available at ZUMA, Dpt of Social Indicators, P.O. Box 122155, D 68072 Mannheim, Germany.

<sup>6</sup> The World Database of Happiness is freely available on Internet: <ftp.eur.nl/pub/database.happiness>

<sup>7</sup> At the individual level a similar pattern appears; correlations between personal income position and life-satisfaction are strong in poor nations and weak in rich ones. See in this Section below, under ‘position in society’.

<sup>8</sup> Together, life-chances and personality explained 35% of the variation in life-events over this 8-year period.

<sup>9</sup> For a review of this literature, see Michalos (1985).

<sup>10</sup> Though highly valued in public opinion, satisfaction as such has no prominent place on the political agenda. Unlike ‘health’, satisfaction is not often mentioned as a policy goal.

<sup>11</sup> In the Principalist approach, welfare can be described in any detail. In the Consensualist approach, detail depends both on the range of agreement and on crystallization of ideas in the public mind.

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