

PART I

DESIGN

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1. PURPOSE OF THE STUDY.

Since Classical times philosophers have been fascinated by the question of how happiness can effectively and lastingly be promoted. In that context many have wondered why all people are not equally happy, even not when living in identical conditions. There is now a vast amount of literature on the matter. However, we are little wiser.

There are several reasons why differences in happiness are so little understood as yet. One is that most students of the subject have tended to confuse moralizing and reality, the bulk of the literature dealing in fact with moral rules for living. Another reason is that speculation often predominated systematic observation. There was therefore little accumulation of knowledge.

It had been expected that the emerging social sciences would take up the empirical study of happiness and that conclusions would eventually be arrived at. Several founders of psychology and sociology saw grounds for hope: with the naïve optimism of their time they professed the discovery of universal laws of happiness and announced the possibility of a scientifically guided reconstruction of society on that basis.

Yet the matter stopped with such declarations. With the exception of a few isolated attempts the subject was abandoned. Only since the 1960's has any appreciable amount of empirical investigations been performed. To some extent this was a by-product of the so-called 'social indicators movement'. Policymakers in affluent western nations instigated large scale surveys to assess the well-being of citizens and to sound out the demand for state sponsored services. Several of these marketing-like studies involved attempts to assess the appreciation of life - in Britain for example carried out by Hall (1976); in the Netherlands by Pommer & van Praag (1978) and in the US by Bradburn (1969), Campbell (1976) and Andrews & Whithey (1976). Independently of them some stray psychologists picked up the subjects as well, as did some clinical psychologists while studying the healthy personality (among others Wessman & Ricks, 1966). A few social psychologists became interested in the issue in the course of their work on social comparison (among others Brickman & Campbell, 1971). Several gerontologists 'discovered' happiness when studying the adjustment to retirement and old age (among others Thompson et al., 1960).

This book is part of that revival. It is in fact an account of the results yielded so far. Though the promised systematic study of happiness was never produced, stray investigations on the matter provide a quite sizable body of

data. If ever it comes to the redemption of this old mission, a chart of these data will be valuable.

Earlier surveys. This is not the first attempt to take stock of the results of empirical investigations on happiness. In fact there are already nine literature surveys. Two of these deal exclusively with happiness in elderly persons (Adams, 1971; Larson, 1978). The other seven are not restricted to special categories (Fellows, 1966; Wilson, 1967; Veenhoven, 1970; Fordyce, 1972; Robinson & Shaver, 1973; Arkoff, 1975; Nettler, 1976). All suffer from imperfections, the one by Veenhoven (first author of this book) not excluded. These imperfections are the rationale for the present study, so they deserve a short enumeration.

Most surveys did not start from any clear conception of happiness. They tend to gather research reports on phenomena the investigator labeled as 'happiness' or the like. There being various connotations in usage, a babel of tongues is characteristically the result. Fordyce's survey contains for instance studies on 'mood', 'life satisfaction' and 'peak experiences' (p. 19). Curiously most reviewers noted that the term 'happiness' carried different meanings, but failed to make motivated choice. Veenhoven's review did start with a formal definition of happiness, but did not use it sufficiently consistently in selecting the studies. Though all reviewers noted that some of the measures of happiness used were somewhat dubious, no one got around to sorting out the valid from the less valid. All merely reported the results whether sound or not. Only Fordyce pointed out some doubtful indicators afterwards.

The earlier surveys cover only part of the investigations that were actually available at the time they were drawn up. The most complete review is the one by Fordyce in 1972. He claims his collection to be 'exhaustive'. Yet he covers only 18 of the 69 publications we found published prior to 1970. The flow of investigations after 1970 has not yet been reviewed at all. All surveys focus heavily on research in the US and overlook the considerable number of European studies.

The earlier reviewers did not enumerate all the findings actually presented in the publications covered. Only Fordyce tried to present the findings completely. All the others simply selected the most interesting ones from their point of view. Thus they tended to omit non-correlates and factors that did not fit in their theoretical scheme. Though inevitable in the context of short review articles, this practice involves a considerable loss of information.

Parallelbook 'Conditions of Happiness'. This volume is an inventory of facts. It does not go into their interpretation. The consequences of the various findings are considered in a simultaneously published book, titled 'Conditions of Happiness', for which the present volume served in fact as a source (Veenhoven, 1984). The introductory chapters of that book provide more detail about this study, in particular about the conceptual delineation of happiness and the problems of measurement. Hence these subjects will be mentioned only shortly in the next two sections of this chapter.

2. THE CONCEPT OF HAPPINESS.

The term 'happiness' has various subtly different meanings. Its many connotations have often proved confusing, thereby hindering the scientific study of happiness to a great extent. Thus a first step is to decide on a clear definition.

a. Overall happiness.

The term 'happiness' is used to refer to an experiential phenomenon. Overall happiness is defined as the degree to which an individual judges the overall quality of his life favorably. In other words: how well he likes the life he leads. The key terms in this definition may be elucidated as follows:

Degree. The word 'happiness' does not denote an optimal appreciation of life. In this language it depicts a degree, like the concepts of 'length' or 'weight'; it denotes more or less of something. When saying a person is happy, it is meant he/she judges his or her life favorably rather than unfavorably.

Individual. The term happiness is used to describe the state of an individual person only. The term does not apply to collectivities, objects or events. So a nation cannot be said to be happy. At best, a majority of its citizens considers itself happy. Happiness denotes a subjective appreciation of life by an individual. So there is no given standard for happiness. While a person who thinks he has a heart condition may or may not have one, a person who thinks he is (un)happy really is (un)happy.

Judges. The word 'happiness' is used where somebody made an overall judgment about the quality of his life. This implies an intellectual activity. Making an overall judgment implies assessing past experiences and estimating future experiences. Both require marshalling facts into a convenient number of cognitive categories. It also requires awarding relative values and setting priorities. Thus happiness is not a simple sum of pleasures, but rather a cognitive construction which the individual puts together from his various experiences.

One consequence of this conceptualization is that the word 'happiness' can not be used for those who did not make up their mind. One cannot say whether a person is happy or not if he is intellectually unable to construct an overall judgment. Thus the concept cannot be used for animals, little children and retarded people. Similarly it does not apply to people who simply never thought about the matter.

Overall. The evaluation of life aimed at is an overall judgment. It embodies all criteria for appreciation which figure in the mind. Ancient hedonists used to equate happiness with sensory pleasures only. But other modes of appreciation are far from negligible. Apart from the senses, affect and cognition enable men to appreciate life as well; in so far as judgments are made intellectually, they may be based on various values or preferences.

The word 'happiness' refers to a judgment which integrates all the appreciation criteria used explicitly or implicitly by the person himself. Thus the contention that one has all one ever desired does not necessarily make a person happy. Despite all earthly endowments he may suffer pain or feel depressed. Similarly the awareness that life is exciting does not necessarily make it as happy either.

Life as a whole. We do not use the word 'happiness' to characterize specific aspects of life. 'Happiness' refers to life as a whole. Thus it covers past, present and anticipated experiences. This does not mean that all things ever experienced are given equal weight in the evaluation process. As stated above, evaluation involves sifting and ordering. In this process some experiences may be emphasized and others ignored. Past life-experiences for example seldom enter into the evaluation process in their original phenomenological Gestalt. What is taken into consideration is mostly a shallow representation of what one tasted previously.

His/her. The term 'happiness' concerns the evaluation of one's own life; not of life in general. A pessimistic 'Weltanschauung' does not necessarily characterize someone as 'unhappy'.

Favourably. Evaluations always embody appreciation; a conclusion as to whether one likes something or not. The term 'happiness' refers to judgments concerning this aspect only. Happiness judgments concern the dimension extending from appreciation to depreciation; from like to dislike. All humans are capable of appraisals of this kind. People of all cultures are acquainted with evaluations in terms of good versus bad (Osgood, 1971: 37/38) and all persons seem able to communicate appreciation by means of facial expressions (see

Schlossberg, 1954).

This criterion of 'favourableness' is very close to what is called 'pleasantness'. However, it is not quite the same. The term 'favourableness' concerns the appreciation involved in a cognitive evaluation. On the other hand the term 'pleasantness' refers exclusively to direct affective experience. As such it is more characteristic of the affective component of happiness (to be discussed below) than of overall happiness itself.

When evaluating the favourableness of their lives, people tend to use two more or less distinct sources of information: their affects and their thoughts. These two approaches may result in different judgments of life as a whole. An individual can decide that he feels fine most of the time and he can also judge that life seems to meet his conscious demands. These judgments do not necessarily coincide. A person may feel fine generally, but nevertheless be aware that he failed to realize his aspirations. Or he may have surpassed his aspirations but nevertheless feel miserable. Using the word 'happiness' in these cases would result in two different kinds of happiness. Therefore we opted to restrict the word 'happiness' to those cases where these evaluations were integrated into one final judgment. The two aspect-judgments can best be conceived as separate issues. They are labeled 'hedonic level of affect' and 'contentment' respectively. This inventory study will cover data on these 'components' of happiness as well.

b. Hedonic level of affect.

Hedonic level of affect is the degree to which the various affects a person experiences are pleasant in character. Hedonic level of affect is not the same as 'mood'. People experience different kinds of moods: elated moods, calm moods, restless moods, moody moods, etc. Each of these moods is characterized by a special mixture of affectional experiences, one of which is 'hedonic tone' or 'pleasantness'. The concept of hedonic level concerns only the pleasantness experienced in affects; the pleasantness in feelings, in emotions, as well as in moods. So a high hedonic level may be based on strong but passing emotions of love as well as on moods of steady calmness.

Hedonic tone is an experiential quality that exists in all human affects. Several investigators have shown this to be so (Arnold, 1960: 38; Davitz, 1970: 256; Schlossberg, 1954; Plutchnik, 1980: 75/77 and Sjöberg et al., 1979). It exists even in brain-injured patients who have lost their abstract capacity and can therefore not enjoy happiness in the meaning employed here (Goldstein, 1952: 370). Probably animals do experience hedonic tone as well. As we cannot

ask them, we will never know for sure, however.

A person's average hedonic level of affect can be assessed over different periods of time: an hour, a week, a year as well as over a lifetime. The concept does not presume subjective awareness of this level. A baby that is laughing all day probably feels fine. However, it is not likely to be aware of that. Contrary to the concepts of 'happiness' and of 'contentment' the concept of 'hedonic level' does not cover anticipated experience.

Hedonic level is probably a constituting factor in the overall evaluation of life called 'happiness'. However, it is not what is usually referred to as 'the affective aspect' of the attitude towards life. The affective aspect of an attitude is the whole of emotional associations which go together with the appraisal of the object at hand. In the case of happiness they denote the affective reaction on the awareness of being either happy or unhappy. The concept of hedonic level is broader. It covers all affective experience, among which all the 'raw' experiences that exist more or less independently of deliberate appraisals of life.

c. Contentment.

Contentment is the degree to which an individual perceives his aspirations to be met. The concept presupposes that the individual developed some conscious wants and that he formed an idea about their realization. Whether this idea is factually correct or not is unimportant. The concept concerns the individual's subjective perception.

When an individual assesses the degree to which his wants are being met, he may look both backwards and forwards. He may assess what life brought up to now and he may estimate what it is likely to yield in the future. Usually people combine both the past and the future in their assessments.

Like hedonic level, contentment serves probably as a formative element in the overall evaluation of life. Yet it is not precisely what is commonly understood as 'the cognitive aspect' of that attitude. The 'cognitive aspect' of an attitude is all one knows about its object. The perception of success in aspirations is part of the knowledge about one's life, but not all there is.

d. Related terms.

Happiness, as defined here, is mostly not the same as what is commonly referred to by terms like 'well-being', 'quality of life', 'morale', 'mental health', and 'adjustment'. These terms being used in varying ways, they sometimes correspond with the present definition and sometimes not.

Likewise the phenomenon termed happiness here is currently given other names as well. Terms like 'life-satisfaction', 'contentment' and 'positive attitudes towards life' sometimes cover the same notion.

3. INDICATORS OF HAPPINESS.

Happiness can be assessed only by asking people about it. That is at least true for 'overall happiness' and 'contentment'. 'Hedonic level' can to some extent be inferred from non-verbal cues.

Several doubts are being raised about the quality of responses to questions about happiness; especially about the validity of direct questions about overall happiness. It is suggested that people do not know, that they are reluctant to discuss the matter, that they fool themselves, that they try to appear happier than they know they are, etc. In the parallel book 'Conditions of happiness' the reality value of these doubts is considered in detail (Chapter 3). It appears that most can be discarded on the basis of empirical evidence. It was for example shown that people have typically quite definite ideas on whether they are happy or not and that it is hence unlikely that questions on the matter tap hot air only. Not all objections could be discarded, however; especially not the objection that people sometimes fool themselves or their interviewers by pretending to be happier than they in fact are. Yet these objections have not been proven true either.

Next to doubts about validity there are questions about the technical reliability of self-reports of happiness. It is objected that responses tend to be heavily biased by among other things interviewer characteristics, answer formats and contextual cues. So far checked empirically, these distortions do not appear too dramatic, however.

Though not convincingly demonstrated, the various objections are still serious enough to be taken into account. They suggest at least four working rules: Firstly, self-ratings are to be preferred to ratings by others. Secondly, anonymous questionnaires work better than personal interviews. Thirdly, the context of the questionnaire as well as the key-questions must be focused clearly on the issue aimed at: in the case of overall happiness on an 'overall' appreciation of 'life-as-a-whole'. Fourthly, questions must leave room for 'no answer' or 'don't know' responses.

Fewer solutions seem available for the problem of comparison. We are not sure whether two people, both claiming to be happy, are in fact talking about identical levels of appreciation. This implies that respondents can be ranked for happiness only rather crudely. In practice this means that statistical correlations

of measured happiness will be somewhat less pronounced than correlations of true happiness. Possibly one or more of the various objections to happiness testing will in due course be convincingly substantiated. For the time being attempts to measure happiness deserve the benefit of doubt.

Happiness has been measured in many different ways. There is a particularly great variety of questions and interrogation techniques. Most of these methods were proposed by investigators who failed to define happiness formally or who had in mind another concept than the one used here.

We therefore inspected all current formats for 'face validity'. This involved close reading of questions, instructions and eventual further devices, in order to assess whether or not they referred exclusively to one of the phenomena defined above. This procedure is reported in full detail in chapter 4 of 'Conditions of happiness'.

The main selection rules are specified below. For most indicators it was rather clear whether or not they meet these demands. Yet there were also cases of doubt, several indicators having both strong and weak sides. Choices on that matter were complicated by the fact that validity demands are not identical for all three happiness variants and that not all observational methods can be judged by the same criteria.

Many indicators appeared unacceptable, several dealing in fact with essentially different matters, such as 'social adjustment', 'zestful living', 'optimism', etc. In many cases it appeared entirely unclear what was actually tapped. Many investigators used for example long lists of questions referring to various items that have at one time or another been associated with 'well-being'. In spite of their statistical validity these inventories are theoretically meaningless.

Overall happiness can be assessed by direct questioning only: indirect questions tap essentially different matters. Direct questions referring to 'satisfaction with life' are preferable to questions using the word 'happiness' as a key-term. Though not ideal, the latter were nevertheless deemed acceptable. Questions can be framed in different formats: in one or more closed questions, in open-ended questions and in focused interviews. In the latter two cases clear instructions for content analysis of responses are required.

Hedonic level can be assessed in three ways: by direct questioning, by indirect questioning and by ratings on the basis of non-verbal behaviour. Again the method of direct questioning is to be preferred: especially when the individual is asked several times during a certain period how pleasant he feels there and then.

Though generally less dependable, indirect methods can sometimes do as well. Some projective tests seem for example to be reasonably valid. Ratings by others will also suffice, provided that rating instructions are sufficiently specific.

Contentment can be measured by means of direct questions only. Like overall happiness it cannot validly be assessed by indirect questions or by peer ratings. Direct questions must again be specific. They probably work best when preceded by an enumeration of one's major aspirations. Questions can again be framed in various formats.

Composites. Finally there are several acceptable indicators that cover two or more of these happiness variants. The majority of these consists of single direct questions which by wording or answer formats refer to both overall happiness and hedonic level. Insofar they did not labour specific deficits these questions were accepted. Next some indicators work with multiple questions. Characteristically these questions cover both overall happiness and one or both of the discerned components. When all items met the demands outlined above, such composite indicators were accepted. A last format to be mentioned in this context is the focused interview of which the 'depth interview' is a variant. Such interrogations tend to broach all three happiness variants. By lack of clear reports about themes of enquiry and ratings procedures it is mostly difficult to assess their face validity.

The inspection resulted in a rejection of more than half of the currently used indicators of happiness. A typology of the accepted ones is presented in exhibit 1.

4. SEARCHING EMPIRICAL HAPPINESS STUDIES.

Having established which indicators of happiness can be deemed acceptable, the next problem was to take stock of investigations that had used such indicators. This was a labourious job. There is no international reference system that covers all of the research reports that have been ever produced by social scientists throughout the world. Neither is there any bibliographical system that uses a classification that fits with the present conceptualization of happiness. Trying to trace reports of all the empirical happiness studies ever performed is rather like searching for a needle in a haystack.

a Search problems.

More specifically we met with the following problems:

Exhibit 1: Indicators of happiness in empirical investigations between 1911 - 1975.¹⁾

OVERALL HAPPINESS			HEDONIC LEVEL OF AFFECT			CONTENTMENT			COMPOSITES		
Code	Type of indicator	Number of studies	Code	Type of indicator	Number of studies	Code	Type of indicator	Number of studies	Code	Type of indicator	Number of studies
HAPP 1	Questions using the term 'happiness'		AFF 1	Questions on perceived hedonic level in general (indefinite period)		CON 1	Questions on contentment		COMP 1	Questions covering both overall happiness and perceived hedonic level of affect	
	1.1 - Single closed question	130		1.1 - Single closed questions	10		1.1 - Single closed question	5		1.1 - Single closed question	16
	1.2 - Index of closed questions	1		1.2 - Index of closed questions			1.2 - Index of closed questions			1.2 - Index of closed questions	5
	1.3 - Open-ended question			1.3 - Index of closed questions (on occurrence of specific affects)	7		1.3 - Open-ended question			1.3 - Open-ended question	
	1.4 - Focused interview			1.4 - Open-ended question			1.4 - Focused interview	1		1.4 - Focused interview	1
HAPP 2	Questions using terms like 'satisfaction with life'		AFF 2	Questions on perceived hedonic level over last period (one week to about a year)		CON 2	Expert ratings of contentment on the basis of longer clinical contact		COMP 2	Questions covering both overall happiness and contentment	
	2.1 - Single closed question	67		2.1 - Single closed question	3		CON 3	Composites, combining two or more of the above mentioned indicators		2.1 - Single closed question	
	2.2 - Index of closed questions			2.2 - Index of closed questions						2.2 - Index of closed questions	1
	2.3 - Open-ended question			2.3 - Index of closed questions (on occurrence of specific affects)	35					2.3 - Open-ended question	
	2.4 - Focused interview			2.4 - Open-ended questions						2.4 - Focused interview	
HAPP 3	Other questions focusing exclusively on overall happiness		AFF 3	Repeated questions on momentaneous hedonic level (periods of one day at most)					COMP 3	Questions covering both perceived hedonic level and contentment	
	3.1 - Single closed question	45		3.1 - Repeated single closed question	13					3.1 - Single closed question	
	3.2 - Index of closed questions			3.2 - Repeated index of closed questions						3.2 - Index of closed questions	
	3.3 - Open-ended question			3.3 - Repeated index of closed questions (on occurrence of specific affects)	6					3.3 - Open-ended question	
	3.4 - Focused interview			3.4 - Repeated open-ended question	1					3.4 - Focused interview	
HAPP 4	Composites, combining two or more of the above mentioned indicators		AFF 4	Projective measures					COMP 4	Questions covering both overall happiness, perceived hedonic level and contentment	
				5.1 - Clinical ratings	4					4.1 - Single closed question	2
				5.2 - Peer ratings	2					4.2 - Index of closed questions	1
				5.3 - Ratings by teachers, nurses, parents, etc.	2					4.3 - Open-ended question	1
			AFF 6	Composites, combining two or more of the above-mentioned indicators	3					4.4 - Focused interview	1
									COMP 5	Expert ratings on happiness on the basis of clinical contact	2
		243			86			6			30

(1) Some investigations used more than one indicator

Happiness variously labeled. The meaning attached to the word 'happiness' here is obviously not shared by everybody. As we have seen, titles using the term 'happiness' often refer to other matters, while reports that use other labels sometimes deal with it. Hence it was not enough to amass publications that use 'happiness' as a keyword, but we had to cover various other search entries as well. Titles often being misleading, we had to inspect all promising publications in order to assess whether they actually dealt with 'happiness' or not. More than a thousand were considered. Several of these research reports did not specify precisely what they measured. In these cases the investigator was asked for more details. Unfortunately we could not get in touch with all the authors concerned.

Too broad entries. Happiness and related terms were not used in most indexes at the time of this investigation. Hence we were forced to inspect rather broader categories, such as 'emotion', 'mental health' and 'attitudes'. This required a lot of work. Fortunately several bibliographical systems were computerized when we were halfway. This enabled not only to select titles that used promising keywords, but also to identify publications which used these words in their abstract.

Book publications difficult to trace. Current bibliographical systems cover journal articles better than book publications. Nevertheless, the few books that deal exclusively with happiness could be easily spotted. However, many empirical data on happiness are reported in books that deal with quite different matters, such as 'health', 'ageing' and 'alcoholism'. As yet there is no reference system that adequately covers such sidelines in book publications. In order to detect such publications we had to rely on references in other publications, on hints and on good luck. Another problem was that many of these book-like reports have a very limited circulation. We struck several that had not left the research institute: among others reports from opinion poll agencies and unpublished theses.

Non-English publications underrepresented. Most international reference systems cover publications in the English language more thoroughly than publications in other languages. As a result we found only a few reports in German and French and not a single one in Spanish, Japanese or Russian. Combing out libraries in the countries concerned would probably yield more of them. It is planned to do so when preparing a sequel to this book, which will cover the empirical literature up to and including 1985.

When to stop? As we will see in the next section, the number of empirical investigations on happiness has grown considerably in the last decade. Hence we were confronted with an ever growing list of promising titles. It was decided to take January 1, 1976 as a cut-off date. About a hundred more investigations were reported since.

b Search procedure.

We started with an examination of the 'Psychological Abstracts' from 1928 to 1972. All abstracts that were listed under the following keyword were scanned: 'adaptation', 'affect', 'adjustment', 'aspiration', 'awareness', 'conflict', 'depression', 'deprivation', 'emotion', 'expectancy', 'frustration', 'happiness', 'life satisfaction', 'mental health', 'motivation', 'morale', 'mood', 'satisfaction', 'self evaluation', 'stress' and 'suicide'. Whenever an abstract seemed to refer to empirical data about happiness, the original report was ordered and inspected. This procedure yielded some thirty usable reports. In the references contained in these reports we found several more.

In 1976 four abstract systems had been computerized to some extent, namely the 'Psychological Abstracts' (1967-1975), the 'Sociological Abstracts' (1963-1974), the 'Educational Resources Information Center' (1966-1975) and the 'Social Sciences Citation Index' (1972-1975). These files were mechanically scanned for the following keywords: 'happiness', 'morale', 'life satisfaction', 'evaluation of life', 'general satisfaction', 'hedonic level', 'elation', 'general mood', 'attitude towards life', 'contentment with life', 'emotional satisfaction', 'psychological well-being', 'inner well-being', 'mood level' and 'daily mood'. This resulted in 2159 abstracts, a hundred of which turned out to refer to an investigation that had used an acceptable indicator of happiness. In some of these reports we again found references to other publications.

Furthermore we searched several libraries in the Netherlands and inspected the indexes of many books on related subjects, thus coming across several more reports.

Finally we consulted the authors of acceptable reports; we sent them a copy of the excerpt we made from their publication and enclosed a list of the titles found so far. The authors were asked whether they knew any more. Thus we received a few dozen tips.

This procedure was very time consuming, in particular because the search criteria were adjusted several times. The criteria for the valid measurement of happiness have in fact sharpened a great deal as we got a better view of the variety of methods that had been used. All in all the search took almost a year work.

c The studies found.

We managed to find 150 publications reporting altogether 156 acceptable research projects, which covered 245 samples. Each set of observation in a sample will be referred to as an 'investigation'. Probably this is not all that is in fact available. Though incomplete, this crop is nevertheless richer than any of the earlier literature reviews made surmise. Remember that the best documented article mentioned only fifty titles, while it set out to cover a broader field (Fordyce, 1972). In fact that review signaled only 18 reports from the present collection and missed 69 ones in the period meant to cover.

The investigations found concern different populations at different moments and used a great variety of happiness indicators. Let's take a closer look at their characteristics.

Periods. The first empirical investigation on happiness was one in 1912 among English students and schoolboys. It focused on hedonic level. In the decades that followed several small studies in the US dealt with hedonic level of students as well. After World War II the number of investigations increased and emphasis shifted to overall happiness and general population surveys. See exhibit 2. Since 1970 the number increased even more and the stream still swells in the early 1980's. At first sight this gradual rise in the number of investigations might suggest that social scientists are becoming more aware of their calling to study happiness and that the subject is gaining a more prominent place in the order of research priorities. Yet we should realize that the entire volume of social research has expanded almost as much during that period; in fact the subject is still the Cinderella it always was.

Populations. More than half of the investigations concern North-America; with two exceptions the US. About seventy come from European countries, of which fourteen from Britain, eight from France, twelve from the Netherlands and eight from Western Germany. In each of the other parts of the world only a few happiness investigations have been performed. See exhibit 3.

The relatively large number of investigations from the Netherlands is not only due to the flourishing social sciences in that country, but also to the fact that we happen to live there and thus had a better chance of finding reports that have not reached any international reference system. In fact only five of the Dutch reports could have been traced that way.

Most of the investigations at hand were based on probability samples in national populations. Next some twenty investigations focused on regional populations, most of them based on probability samples as well. The remaining inves-

Exhibit 2: Number¹⁾ of empirical investigations on happiness between 1911 and 1975²⁾, by continent, type of population covered and happiness variant³⁾ involved.

	1911- 1920	1921- 1930	1931- 1940	1941- 1950	1951- 1960	1961- 1965	1966- 1970	1971- 1975	Total
Africa	-	-	-	-	1	1	-	1	3
Asia	-	-	-	-	1	8	1	7	17
Australia	-	-	-	2	-	-	1	1	4
Europe	2	1	-	14	2	8	6	33	66
Anglo America	2	4	5	10	15	19	33	58	146
Latin America	-	-	-	1	2	3	-	3	9
National population	-	-	-	23	13	23	10	62	131
Regional/local population	-	-	-	-	-	7	3	11	21
Students/pupils	4	3	5	3	2	3	10	8	38
Aged people	-	-	-	-	5	2	2	7	16
Other categories	-	2	-	1	1	4	16	15	39
Overall happiness	-	1	2	25	20	37	29	89	203
Hedonic level of affect	4	5	3	1	2	11	18	36	80
Contentment	-	-	-	-	2	2	1	1	6
Total	4	5	5	27	21	39	41	103	245

(1) The number of separate samples was counted, not the number of publications.

(2) If no date of data gathering was reported, the data are presumed to have been gathered one year before publication.

(3) Some investigations covered more than one happinessvariant.

Exhibit 3: Number¹⁾ of empirical investigations on happiness between 1911 and 1975, by population²⁾ covered and type of sample³⁾.

	National population		Regional population		Students / pupils		Aged people		Other special groups		Total	
	prob.	non-prob.	prob.	non-prob.	prob.	non-prob.	prob.	non-prob.	prob.	non-prob.	prob.	non-prob.
Africa	2	1	-	-	-	-	-	-	-	-	2	1
Asia	12	-	3	-	-	-	-	-	1	1	16	1
India	3	-	-	-	-	-	-	-	-	-	3	-
Israel	1	-	2	-	-	-	-	-	1	1	4	1
Japan	3	-	-	-	-	-	-	-	-	-	3	-
other	5	-	1	-	-	-	-	-	-	-	6	-
Australia	4	-	-	-	-	-	-	-	-	-	4	-
Europe	48	3	2	1	-	6	-	-	1	5	51	15
Britain/England	8	1	-	1	-	2	-	-	-	2	8	6
France	8	-	-	-	-	-	-	-	-	-	8	-
W. Germany	6	-	-	-	-	-	-	-	-	2	6	2
Italy	5	-	-	-	-	-	-	-	-	-	5	-
The Netherlands	6	-	2	-	-	2	-	-	1	1	9	3
Scandinavia	5	1	-	-	-	1	-	-	-	-	5	2
other	10	1	-	-	-	1	-	-	-	-	10	2
Anglo America	46	6	14	1	6	26	7	9	13	18	86	60
USA	44	6	13	1	6	26	7	9	13	17	83	59
Canada	2	-	1	-	-	-	-	-	-	1	3	1
Latin America	9	-	-	-	-	-	-	-	-	-	9	-
Brazil	2	-	-	-	-	-	-	-	-	-	2	-
Mexico	2	-	-	-	-	-	-	-	-	-	2	-
other	5	-	-	-	-	-	-	-	-	-	5	-
Total	121	10	19	2	6	32	7	9	15	24	168	77

(1) The number of separate samples was counted, not the number of publications.

(2) Major countries are listed under the continents. The 'other' categories contain investigations in countries not presented, or in different combinations of countries. The number behind the major regions are sumscores.

(3) In some cases type of sample construction was not reported. In these cases 'representative' samples were considered as probability samples, and other samples as non-probability samples.

tigations covered various more specific populations, the most frequently studied ones being 'elderly people' and 'students'. There are furthermore some stray investigations among e.g. 'workers', 'university professors', 'military personnel', 'housewives' and 'farmers'.

Indicators. Most investigations focused on overall happiness. Some eighty dealt with hedonic level and only a few assessed contentment. Let us now examine in more detail what indicators were involved. Exhibit 1 lists all types of indicators deemed acceptable. Next it shows how often each of these was used.

Overall happiness was most frequently tapped by means of single closed questions using the word 'happiness'. Direct closed questions on 'life satisfaction' were second in popularity among investigators. Surprisingly few investigators worked with open-ended questions or focused interviews.

Hedonic level was often assessed by means of sum scores of questions on specific affects: mostly by variants of the so-called 'Affect Balance Scale' (ABS), developed by Bradburn & Caplovitz (1965:177). In several instances it was also measured by repeated questions on the momentaneous level of cheerfulness, mostly by means of the 'Elation-Depression Scale' of Wessman & Ricks (1960: 273). A few investigations used ratings by others. Open-ended questions and focused interviews hardly appear.

The few investigations that assessed contentment all used single direct closed questions, except one that worked with focused interviews.

Finally some thirty investigations involved composite indicators, covering more than one of the happiness variants at the same time. More than half of these combined questions on overall happiness and hedonic level. The two 'clinical ratings' probably covered matters of contentment as well.

d Some further characteristics.

Part of the harvest consists of public opinion polls which provide no more information than frequency distributions of answers to happiness questions by certain populations at a certain time. We found 66 of them. Taken individually, these investigations are not very interesting, but together they allow comparison across time and culture.

Most investigations do more than counting happy and unhappy people; generally they also investigate whether certain characteristics are more frequent among the former than among the latter. We found 179 such correlational studies. Most of these used zero-order correlations, but quite a few specified at least some of the correlations found: correlations between happiness and income have for example been specified by variables such as 'gender', 'age' and 'social rank'. Most

investigations are rather superficial and haphazard in this respect, only about thirty of them involving broad and systematic elaborations.

Almost all investigations at hand are synchronic ones and only eight involved longitudinal observations of happiness, mostly over the periods no longer than a year. Six other ones related synchronic observations on happiness to longitudinal data on other variables.

5 PRESENTING THE FINDINGS.

Filling a bookcase with acceptable studies is just the first step. The next was to order the abundant findings conveniently. To that end the reports were first excerpted in a uniform way. In a shortened version these excerpts are presented in Part II of this volume. Next the correlational findings were arranged according to subject. Over 2500 correlations were involved, their presentation taking the bulk of this book. These data are enumerated in Part III. Part IV presents the results of the 66 non-correlational studies that assessed the level of happiness in particular countries and of some correlational studies that assessed national averages as well.

This procedure may look simpler than it actually was. It is worthwhile having a look at the problems involved and the way dealt with them.

a Hinderances in getting an overview.

Excerpting the reports was necessary for several reasons: to mention one: several were rather chaotic and their findings therefore hard to trace. Some had relevant information hidden in footnotes and appendices, while others presented information in separate (and not easily accessible) statistical supplements.

Another problem was that not all reports used the same language. Not only were not all the reports in English, they moreover used subtly differing technical vocabularies. Together with the great number of investigations these problems render it impossible to get a general view, even for the interested scholar who is willing to spend several months reading. Uniform excerpts were thus necessary in order to prevent the information gathered from getting lost.

In excerpting the reports we struck on the following technical problems.

Different labeling of variables. As noted before, not all investigators used the same word to depict 'happiness'. The same problem appears in labeling variables that were related to it; essentially similar co-varying factors being adorned with quite different names. Answers to questions about 'self esteem' for instance

were labeled with terms as 'mental health', 'role adjustment' and 'identity'. On the other hand, one and the same term sometimes covers distinct concepts. The term 'health' for example refers sometimes to 'absence of apparent disease', sometimes to 'frequency of complaints' and in an other instance to 'longevity'. As in the case of happiness the problem was solved by forgetting the theoretical labels used and by focusing on what had been actually observed and how. When ordering the findings later on, we classified them on the basis of this information and devised labels for the categories thus constructed.

Differents technical vocabulary. Another problem was that the studies do not use the same technical terms to describe the design of the investigation. The term 'reliability' for example was used sometimes to refer to similarity in response to the same question asked twice and sometimes to the association between answers on different questions believed to represent the same variable. Likewise terms such as 'scale', 'non-response' and 'sample' carry different meanings. This confusion of tongues is nicely illustrated by van de Merwe's 'Thesaurus of Social Research Terminology', a voluminous book, the purpose of which is to list current technical jargon (van der Merwe, 1974). Obviously this situation can easily lead to misunderstanding. I felt therefore obliged to define all the technical terms I used in the excerpts and to translate all the reports into that terminology. The resulting list can be found in Appendix A.

Incomparable statistics. Several investigators report their results in frequency distributions of happiness, split up for other variables. Such tables do not allow comparison with other studies very easily. Moreover, they are too voluminous to be inserted into the excerpts. Therefore we reduced the data reported in such tables by computing association values. As most of the tables contained data on the ordinal level of measurement, we computed Gammas. In the excerpts these values are marked with an accent (G'). In cases where no Gammas could be computed due to lack of information, it sufficed to indicate the direction of the relation as shown in the tables (+ or -)-

Most investigators computed association values themselves, generally product moment correlations (r_{pm}). Unfortunately there are various measures of association. These measures are based on slightly different assumptions about the mathematical qualities of the data and for that reason they are not quite comparable. This is a serious problem in comparative research, a problem to which there is no adequate answer. The best we could do was to record the statistical measures used in each case and to sketch their characteristics in an

appendix. See Appendix B.

Though varying somewhat in their methods and assumptions, most measures of association are nevertheless expressed in values ranging from zero to one. For all measures the value of 'zero' implies absence of any common variance, whereas the value of 'one' implies absolute association. The meaning of the inter-jacent values may differ, however. Gamma of +.30 does not always reflect the same correspondence between two variables as an r_{pm} of +.30. Yet standardized measures of association permit at least a rough comparison. Unfortunately not all measures of association are expressed in standardized values ranging from zero to one. The much used 'Chi²' for example has a theoretical range from zero to infinite. In these cases comparison is even more hazardous. We therefore decided not to mention such values in the excerpts, but simply to note the direction of the statistical relationship. For the same reason we did not mention most differences in means. A difference in mean happiness scores range from 1 to 10. The noting down of a '+' or '-' had to suffice.

Several investigators further tried to establish whether the correlations they found were significant or not (mostly significantly deviating from a zero correlation in the population the sample was drawn from). To that end they used again a great variety of methods. These test statistics are summarized in Appendix C. In the cases we computed Gammas ourselves we also assessed the significance of these. The resulting values are once more marked with an accent (Gt' for 'Gammatest').

b Excerpting the reports.

The excerpts were not exactly 'summaries'. They were not meant to cover all the issues the author had raised, but focused exclusively on his empirical observations on happiness. The excerpts were made by means of a notation sheet. A completed version is printed on the next page. The report dealt with there is an article by Thompson et al. (1960). As noted above, the technical terms used in this excerpt are explained in Appendix A. We saw to it that the excerpts reflected all the findings of the reports, not only the findings that were stressed by the author or that seemed most relevant to us. We did not restrict to significant correlations either; non-correlations were noted as well. This required a careful inspection of both the text and the tables in the reports.

Excerpting involves the possibility of making mistakes, in particular of selective attention and theoretically guided misperception. Therefore each report was excerpted twice by two different excerpters. The excerpts were then compared and differences settled on the basis of a careful re-examination of the report. In cases where the author(s) could be traced, the excerpt was also sent

Exhibit 4 : A typical excerpt

AUTHOR: Thompson, W.E., Streib, G.F. & Kosa, J.
 TITLE: The effect of retirement on personal adjustment: a panel analysis.
 SOURCE: Journal of Gerontology, 1960; vol. 15, nr. 2, p. 165-169.

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GOAL OF THE STUDY: Test and specification of assumed negative relation between retirement and personal adjustment. N: 1559

REFERS TO: Theory of adjustment among retirees; Havighurst & Albrecht (1953); Kutner et al. (1956). LABEL: Satisfaction with life

TYPE OF STUDY: explanatory, explorative, special group, longitudinal, non-experimental INSTRUMENT: COMP 1.2: Index of closed questions (devised through the use of the Guttman (1944) scaling technique):

DATA GATHERING: Structured interview administered at the respondent's place of work, followed by 2 mailed questionnaires at one or two years interval.

DATE OF DATA: 1952 - 1956

POPULATION: Aged males, USA

SAMPLE CONSTRUCTION: Non-probability accidental sample using volunteers. All males were born in 1887, 1888 or 1889; relatively more prosperous and better educated individuals from relatively larger, more affluent and more progressive organizations from all parts of the country; 1082 Ss gainfully employed throughout and 477 Ss retired between 1952-1954

NON-RESPONSE:

REMARKS: The publication focuses on longitudinal changes in satisfaction with life rather than on correlates of present satisfaction with life. Compared were persons satisfied in 1952 who became dissatisfied in 1954 (N=788) and persons dissatisfied in 1952 who became satisfied in 1954 (N=771). For our purpose we computed correlates of satisfaction with life in 1954, when possible we made elaborations for satisfaction with life in 1952.

RELIABILITY: Reproducibility: +.96
 Error Ratio : +.55

VALIDITY:

DISTRIBUTION: Almost symmetric: in 1952: 51% satisfied, 49% dissatisfied
 in 1954: 43% satisfied, 57% dissatisfied

1. All in all, how much happiness would you say you find in life today? (negative response: 'almost none' or 'some, but not very much')

2. In general, how would you say you feel most of the time, in good spirits or in low spirits? (negative response: 'I'm usually in low spirits' or 'sometimes in good spirits, sometimes in low spirits')

3. On the whole, how satisfied would you say you are with your way of life today? (negative response: 'fairly satisfied', 'not very satisfied' or 'not satisfied at all')

page	association		significance		correlates of happiness found		
	mea- sure	value	test	p	conceptualization	operationalization	elaboration/remarks
167	G'	-.07	Gt'	ns	Retirement	Gainfully employed vs retired between 1952 and 1954	Among those who were satisfied in 1952 : G' = -.21 Among those who were dissatisfied in 1952 : G' = +.11 When the gainfully employed were compared with retirees who had a positive orientation towards retirement before they were retired : G' = +.13 When the gainfully employed were compared with retirees who had a negative pre-retirement attitude towards retirement : G' = -.27 Unaffected by voluntary vs compulsory retirement.
168	G'	-.08		01	Compulsory retirement	Voluntary vs administrative retirement	Computed for those who retired between 1952 and 1954 only. Unaffected by pre-retirement attitude towards retirement.
168	G'	+.40	Gt'	01	Positive pre-retirement attitude towards retirement	3-item index of closed questions indicating a negative vs a positive orientation towards retirement	Computed for those who had retired between 1952 and 1954 only.
168	G'	-.55	Gt'	01	Economic deprivation	not deprived vs economically deprived	Computed for those who were satisfied in 1952 only. Among the gainfully employed : G' = -.54(01) Among retirees who had a positive pre-retirement attitude towards retirement : G' = -.53(01) Among retirees who had a negative pre-retirement attitude towards retirement : G' = -.40(ns)
168	G'	+.58	Gt'	01	Subjective health	poor vs good	Computed for those who were satisfied in 1952 only. Among the gainfully employed : G' = +.65(01) Among retirees who had a positive pre-retirement attitude towards retirement : G' = +.46(01) Among retirees who had a negative pre-retirement attitude towards retirement : G' = +.23(ns)
168	G'	-.49	Gt'	01	Having difficulties in keeping occupied	Closed question: no vs yes	Computed for those who were satisfied in 1952 only. Among the gainfully employed : G' = -.43(01) Among retirees who had a positive pre-retirement attitude towards retirement : G' = -.38(05) Among retirees who had a negative pre-retirement attitude towards retirement : G' = -.64(01)

CONCLUSIONS: In general, retirement appears to have a negative effect on personal adjustment only when retirement is involuntary and economic deprivation is felt. The findings do suggest that the work-role is not as central to the personality as many writers would contend.

to him (them) for inspection. Altogether 120 were sent out (to 93 authors), 73 of which were returned (by 55 authors). Several of the latter enclosed additional information that had not been published in their excerpted report. Where relevant, that information was added.

Close reading of the reports revealed many defects. Relevant information was often found to be missing and several reports appeared to contain mistakes. If possible the author was consulted. The correct information was then included in the excerpt.

Altogether these excerpts ran to some 400 pages. That was too much to print. The excerpts in Part II are therefore short ones. The actual findings are omitted because these appear in Part III (See contents of part III on page 191-194). The shortened excerpts thus reflect only the design of the investigation and its conclusions. See page 170 for the shortened version of the excerpt of the article by Thompson et al.

Not all reports were excerpted, only the ones that present 'correlates' of happiness. As noted there are also 66 investigations that assessed the 'distribution' of happiness in certain populations, mostly highly standardized opinion polls. Their results are presented separately in Part IV of this volume.

The excerpting of the reports turned out to be a laborious job. Not the excerpting as such, but rather the development of a manageable vocabulary and rules. All in all it took two full man-years.

c Classifying the findings.

Together the reports appeared to contain some 4000 correlates of happiness—too much to survey. The next problem was hence to categorize these abundant findings conveniently. When sorting out the findings we took care not to squeeze them into conceptual categories of some a priori theory of happiness. Rather we tried to figure out which categorization would show the wealth of data to its fullest advantage. Thus we arrived at forty-two main categories which we ordered alphabetically. These main categories were subdivided into some two hundred further ones. The resulting classification is presented on page 191-194. In classifying the correlates by subject-matter, we ignored the theoretical labels the investigators had attached to them, but focused on what they had actually observed. Several findings appeared to fit in more than one category of the classification and were hence presented more than once.

When classifying the findings of different investigations in subject categories, we could obviously not obliterate their contextual differences. Hence we did not

merely list statistics, but presented each finding with shortened information about the methods of measurement used and the population concerned. See for instance the pages 291 to 295 which summarize the findings on the relationship between happiness and physical health. On page 292 we meet again with one of the findings of Thompson et al. summarized in exhibit 4. The codenumbers in the headline on p.291 refer to the classification shown on p. 191-194. The horizontal columns summarize information drawn from the various investigations. The first vertical column records how the variable concerned was labeled by the investigator. The second one notes how that variable has actually been measured. The third column presents eventual elaborations that were made by the investigator. If left blank the investigator made do with zero-order correlations. The fourth column contains codes referring to the kind of happiness measures used: 'HAPP' meaning 'overall happiness', 'AFF' 'hedonic level of affect', etc. These codes are the ones contained in exhibit 1. The fifth column notes the measures of association used; the symbols are explained in Appendix C. The eighth column mentions the resulting 'p' value. If these latter two columns are left blank no test for significance has been carried out. Almost at the right side of the page column nine describes shortly which population was studied, what kind of sample had been involved and when the data were gathered. Finally the last column mentions the source. The reader who wants more information can revert to the excerpt in Part II or even the original report. To that end column ten also mentions the page in the original report.

This job also required a lot of work, especially the setting up of a reliable classification. It took another full year to organize the data conveniently. Finally a 350 page inventory resulted which served as Part III of this volume. Thus a bookcase full of different reports was reduced to a one inch thick systematic volume. This reduction did not involve a loss of essential information, as least not as far as empirical data about happiness were concerned.