

RUUT VEENHOVEN

## TWO STATE-TRAIT DISCUSSIONS ON HAPPINESS

### *A Reply to Stones et al.*

**ABSTRACT.** Rejoinder to reaction by Stones et al. (SIR 36) on Veenhoven's "Is happiness a trait?" (SIR 32).

There are two discussions about the trait-likeness of happiness. One is concerned with the possibility of creating greater happiness for a greater number. In this discussion the focus is on variability of happiness *level*. The other discussion is about chances for reducing inequalities in happiness. That discussion focusses on permanence of *differences* in happiness. My thesis concerned the first discussion. The criticism pertains to the second.

The criticism is framed in notions of psychological personality research. In line with that tradition its conceptualizations are rather loose. The terms 'happiness' and 'trait' are used in broader meaning than in my article. In this respect the critics conduct a different discussion as well.

Stones et al. present studies that would show that happiness is more trait-like than state-like. Yet their evidence is not convincing. The data do not pertain to happiness in the sense of life-satisfaction, and the interpretation of their data is deficient.

For the time being it seems that happiness is not a fixed matter. In that respect it is a feasible goal for social policy.

## INTRODUCTION

### *My Thesis*

Several theories deny Enlightened conviction that we can improve the human lot. One of these is that happiness is largely a dispositional matter.<sup>1</sup> In that view, a better society does not make people any happier, because subjective happiness is too invariant to respond to improvements in real quality-of-life. In this journal (SIR 32) I took stock of the empirical evidence for that theory in an article entitled "Is happiness a trait? Tests of the theory that a better society does not make people any happier" (Veenhoven, 1994). The theory was checked at two levels; at the individual level and at the societal level.

The individual level variant of the theory presumes that happiness is a psychological trait; either innate or acquired. It predicts

that happiness will remain stable accross time and situation, and is innerly causated. I checked these implications in a (meta)analysis of panel studies. I concluded that: 1) Happiness is quite stable in the short term, but not in the long run, neither absolutely nor relatively. 2) Happiness is not insensitive to fortune and adversity. 3) Happiness is not entirely built-in; its genetic basis is at best modest and psychological factors explain only part of its variance.

The societal level variant of the theory holds that individual appraisals of life draw heavily on the collective outlook on life, which is seen to have developed in earlier generations and passed on through socialization. As a result, the happiness of citizens would have little connection with the actual quality-of-life in their country. I checked that prediction in an analysis of average happiness in nations. The results pointed in the same direction: 1) Though average happiness remained quite stable in most countries, I noted some profound changes, both in absolute happiness and in relative happiness rank. 2) Average happiness in nations is clearly not independent of living conditions. The greater the economic prosperity, political freedom and social equality in a country, the happier its citizens are on average. 3) The differences in average happiness cannot be explained by a socialized outlook on life. This was most apparent in the happiness level of migrants, which was closer to the level in the country of settlement than that of their native country.

I concluded that happiness is no immutable trait, and that there is still sense in striving for greater happiness for a greater number.

### *The Criticism*

My article elicited a reaction in this journal (SIR 36) by Stones, Hadjistavropoulos, Tuuko and Kozma: "Happiness has traitlike and statelike properties, a reply to Veenhoven" (Stones et al., 1995). Their critique concerns my argumentation at the individual level. The following objections are raised:

Firstly, my critics read me frame the discussion in an 'either-or' question, happiness would be either a trait *or* a state. They rebut that happiness can better be conceived as both a trait *and* a state.

Secondly, my critics object that I underestimate the traitlike properties of happiness. My review of research would be selective and even faulty at some points.

Thirdly, they claim that happiness is more traitlike than statelike. In support of that assertion they present data from their own studies.

The general point is that I failed to acknowledge the wisdoms of psychological personality research.

#### DIFFERENCES IN THINKING

Though the same words are used ('happiness' and 'trait') the criticism is in fact about different things. It concerns another question and different phenomena. Below I will first discuss these differences in subject matter. Having past that babel, we can then more fruitfully consider the empirical indications for the traitlikeness of happiness in its original meaning.

#### Different Issues

In my article the question was whether happiness is so much a trait that social policy can hardly affect it. In the context of that question I focussed on permanence in *level* of happiness. The issue was whether people remain equally happy through time, even if their situation improves or deteriorates.

My critics focus on permanence of interpersonal *difference* in happiness. Their question is to what degree the happiest remain the most happy relatively. That may be a common issue in psychological personality research, but it is not the point here.

This difference is illustrated in the discussion on cross-situational consistency of happiness. I presented evidence that adversity such as unemployment results in a lower level of happiness. Stones et al. rebut that trait-happy people will still remain happier in adversity than trait-unhappy people (p. 133). They are probably correct, but this specification is not relevant for the question at stake. The question is whether social improvements, such as achieving full-employment, will raise the general (absolute) level of happiness. Not whether it will diminish existing differences in (relative) happiness-rank.

The difference appears also in the discussion of cross-temporal consistency. I emphasized that 'absolute stability' is most relevant in this discussion. If happiness tends to remain at the same level, there is little view on improving the human lot (p. 108). My critics see

only ‘relative stability’, the degree to which interpersonal differences persist. Again, that is not the point. The question is whether the level of happiness will rise when living conditions improve. Not whether the originally happiest maintain their lead.

As my aim was to test the claim that happiness cannot be raised, it sufficed to show that happiness is not immutable.<sup>2</sup> That is what I did. By showing that happiness is not wholly traitlike, I did not imply that it is entirely statelike.

### **Different Concepts**

My critics deal not only with another problem than I did, but they refer to different phenomena as well. What they call ‘happiness’ and ‘trait’ is something else than I meant.

#### *Different Meanings of ‘Happiness’*

Not everything called happiness is the same. Some things called happiness can be more stable than others. That seems to be the case here.

*Different concepts of happiness.* My review of research on temporal stability of happiness was based on a definition of happiness as “the degree to which an individual evaluates the overall quality of his/her life-as-a-whole positively”.<sup>3</sup> I restricted to studies based on indicators that fit this definition. Stones et al. write they accept my definition of happiness (p. 130). Yet apparently, they do not see the consequences of that conceptualization.

This failure manifests first of all in the measurement of happiness. My critics complain that my selection of happiness studies is biased,<sup>4</sup> and that I did not include their happiness inventory (pp. 133–134). They do not acknowledge that a lot of indicators measure something else, and were discarded for that reason. Below, I will explain in detail why their favored inventory does not fit my concept.

The misreading of my definition also appears in the data-analysis. As will be shown in the next section, Stones et al see their happiness trait manifest in a ‘person-component’. This component involves not just life-satisfaction, but a broad array of psychological characteristics in the realm of ‘adjustment’. So my critics have a broader

concept in mind. In their thinking happiness is a loose personality syndrome rather than a specific judgement of life.

This difference in conception of happiness leads to different conclusions about its traitlikeness. If happiness is conceived as a personality syndrome, traitlikeness is more or less implied. If happiness is conceived as a judgement of life, statelikeness is more likely.

*Incomparable indicators of happiness.* The happiness measure used by Stones et al. is the 24 item Memorial University of Newfoundland Scale of Happiness (MUNSH; Kozma and Stones, 1980). This is a 24 item inventory. The first 10 items are about mood in the past months, and are derived from Bradburn's (1965) Affect Balance Scale. The other 14 items concern various attitudes to old age and are drawn from two adjustment-inventories; the PGCM (Lawton, 1972) and the LSI-Z (Wood et al., 1969). Some of these latter items fit my definition of overall happiness more or less (items 15, 20, 22, 23). However, most do not fit the definition.

The items 11, 12, 14, 16, 21 are about perceived change in happiness; they ask whether life has become less happy, or remained equally satisfying. However, *change* in happiness is not *level* of happiness. One can become less happy, but still be fairly happy; or become happier, but still be miserable.

Item 19 is even farther away from life-satisfaction. It asks whether one would like to live in another place or not. Yet preference for another residence does not mark someone as unhappy. Being open for a move does not necessarily mean that one is dissatisfied with one's present residence, and possible dissatisfaction with one's residence does not mean that one is dissatisfied with one's life as a whole.

Item 24 is inappropriate as well. It asks whether one's health is the same or better than most people's of the same age. However, health is not the same as happiness, and certainly not health compared to contemporaries.

The items 13, 17 and 18 tap specific moods. Together with the first 10 items they could validly indicate hedonic level of affect (one of the happiness-variants in my conceptualization).

This inventory may have beautiful psychometric properties, but it does not measure happiness as defined above. It measures something

more, possibly optimism. What it precisely measures is unclear. The problem with this whole generation of adjustment inventories is their lack of substantive precision. Elsewhere I characterized them as a passed station in satisfaction research (Veenhoven, 1996: 3).

The MUNSH is not the only indicator of happiness used by my critics. The first study they present as counter-evidence is based on “happiness and depression indexes derived from factor analysis of the CES-Depression scale (Radloff, 1977)” (p. 139). The precise items in these indexes are not reported. I doubt that they cover the above defined concept of happiness. Depression is not identical to happiness. Though most depressed are unhappy, not all unhappy are depressed.

### *Different Notions of ‘Trait’*

*Trait as all positive characteristics.* As we will see below, Stones et al. distinguish three components of variance in happiness: ‘error’, ‘situation’ and ‘person’. The person component is seen as the happiness trait.

In this conceptualization, happiness merges with other personal characteristics, such as health and personality. In their idea of happiness that is no problem, happiness being a broad configuration of positive characteristics. Yet my specific concept of happiness is no longer recognizable in this mound.

This analysis limits the view on the nature of stability. One cannot distinguish stability in happiness as such, from stability in its determinants.

*Trait as a specific disposition to judge life.* In my article I differentiated the person component in dispositions that ‘constitute’ happiness, and personal characteristics that may ‘facilitate’ its achievement.

An example of a stable *constituent of happiness* is the innate proclivity to experience positive affect. Another example is an established attitude towards life, which can exist more or less independently from affective inclination. In these cases the stability of happiness is at the level of judgement. Such judgmental tendencies are likely to manifest in all situations.

Examples of inner *facilitators of happiness* are health, personality and aptitudes. Good health, for instance, is often instrumental in real-

izing one's goals in life. Likewise, some personality traits facilitate intimate contacts (f.e. extra version). Intelligence can boost occupational success. The stability lies here in the continuous production of pleasant life-events, which gives rise to a continuation of (state) happiness. These latter facilitators will affect happiness less consistently however; their effects on the evaluation of life are contingent on life-goals and life-situation. For instance, bad health is less pernicious to a pensioner than to a working mother.

*Importance of the difference.* This difference is crucial in the present discussion about the possibility of making people any happier.

If judgements of life are dominated by traitlike 'constituents', we are likely to remain equally happy or unhappy, irrespective of the real quality-of-life in society. Chronic grumblers will always be dissatisfied. Greater happiness for a greater number is no realistic goal in that case, and happiness is hence no useful social indicator.

Continuity in 'facilitators' of happiness is less likely to fix happiness to the same level. Firstly, their effects are contingent to life-goals and life-situations. Hence their impact will level off in the long run.<sup>5</sup> Secondly, improvements in the quality-of-life are not necessarily nullified in this case. If healthcare is improved in the country, everybody could get healthier and hence happier, even if the initial difference between the most and least healthy remains.

Still another thing is that the two kinds of dispositions require different interventions in attempts to advance happiness.

Taking upon 'constituents' of happiness would involve boosting positivism. In fictitious 'Brave New World' that was accomplished chemically with 'soma'. In real life it is often tried by hurrah-propaganda or courses in 'positive thinking'. Happiness is then improved without really improving life. From a humanistic point of view this is morally dubious.

Seizing upon 'facilitators' means mostly that the persons capacities for achieving happiness are enhanced. This may involve healing of health-defects or learning appropriate skills for coping with life. This approach is more acceptable from a moral point of view. It also seems more feasible.

Sound discussion on the possibilities to create greater happiness for a greater number requires that these dispositional matters are

distinguished. My critics seem to have missed that point. They shovel all person variables on one heap and praise the pile.

#### DIFFERENCES ON DATA

Having clarified the differences in conceptualization, we can now consider the differences on empirical issues. Stones et al. claim that happiness is more traitlike than statelike. As we have seen that claim is more or less implied in their conceptions of 'happiness' and 'trait'. The question here is whether their evidence applies to my original conceptions as well.

##### *Situational Stability*

In my article "Is happiness a trait?" I reviewed the available research on situational stability of happiness (in the sense of life-satisfaction). The review involved 14 cross-sectional studies and 9 panel studies. These studies involved misfortune such as bereavement, unemployment and having a handicapped child. The data showed that happiness is not insensitive to fortune or adversity. People in bad situations tend to be less happy than people in good situations, and people who's situation improves tend to become more happy whereas people who's situation deteriorates tend to become less happy. I concluded that happiness is no immutable trait.

Stones et al. doubt that conclusion and claim that 'happiness is more traitlike than statelike'. They present three studies as counter-evidence.

The first study is among caregivers who differ in two respects: 1) place of residence of the recipient (inside or outside an institution), and 2) ailment of the recipient (dementia or another infirmity). These situational differences appear almost unrelated to (change in?<sup>6</sup>) 'happiness' (in fact: depression).

The second study is a follow-up among elderly institution residents, and compares the effects of two kinds of psychosocial treatment. The differences appear to be minimal; MUNSH-scores remain largely the same over the period studied, that is: equally low.

The third study is a pre/post-treatment assessment as well, now in a control group design. It demonstrates a treatment effect. MUNSH



scores rise somewhat in the experimental group, yet again these subjects remain profoundly despondent (p. 140).

Stones et al. estimate the statelikeness of 'happiness' by its variation that is attributable to experimentally induced change (called situation component). The traitlikeness of happiness is estimated by the continuity in happiness (called person component). Their model also involves an error component. They conclude that the stable variance of happiness exceeds reactive variance in all these cases and present that as evidence for their claim that happiness is generally more trait-like than statelike (p. 141).

This counter-evidence is not convincing however. Not only are the measures of happiness inadequate (as shown above), but also can the results not be interpreted that way.

Firstly, the unchanged dejection of these elderly patients does not illustrate the general point that happiness is unchangeable. Clearly, their despondency is largely determined by their unfortunate situation. In this condition of impairment and dependence even a trait-optimists would fall into chronic state-dejection. Most subjects will have been happier in their better years, but apparently their happiness is not so traitlike that it withstands this miserable situation.

Secondly, the situational differences studied are trivial. There is not much difference between having one training or another in study 2. Even the difference between having a treatment or not (study 3) is not very significant in the total of life-experiences. No wonder the 'situation component' in these studies is so small.<sup>7</sup>

Thirdly, the situational component does not involve all situational effects, but only the experimental effect. The studies did not take stock of other changes that took place in this period, such as deterioration in health or loss of mates. In the design used by Stones et al. these unobserved life-events disappear in the error component.

Further, the periods studied are short.<sup>8</sup> In the short run there is typically too little situational variation in the lives of the subjects to distinguish between stability in situation and stability in the judgement of it. Serious estimates of the traitlikeness of happiness must consider its stability across major cumulative life-change, over decades.

A last thing to note is that elderly nursinghome residents are not the most appropriate cases to study long term stability of happiness.

Variation of happiness will be low in this population, because chronic depression is a common admission criterion. Situational variation is limited as well, because life is short and without turns.

These experiments may be useful for their original purpose of indicating effects of care-arrangements in a given institutional context. Yet they bear no relevance for the wider question whether a better society can make people any happier.

### *Temporal Stability*

In my article I focussed on ‘absolute’ stability of happiness, in other words on invariance in happiness-level. My question was whether people are so much geared to a certain evaluation of life that substantial improvements in their living conditions does not materialize in greater satisfaction with life. I also reported data on ‘relative’ stability, which concern rankorders in happiness. That latter matter was not essential in my reasoning. It pertains to the possibility of reducing *differences* in happiness, rather than to the issue of raising the general *level* of happiness. I had better left it out.

My critics seize upon that sidestep and claim that I underestimate the (relative) stability of happiness. Though besides my point, their criticism is worth considering in its own right.

In my paragraph on stability in happiness-ranks I reviewed the results of panel-studies that used measures of happiness that fit my definition. Four studies among adults observed 10 to 15 year over-time-correlations from +0.03 to +0.46 (average +0.30). One 40 year follow-up among adults found over-time-correlations between +0.15 and +0.28 (average +0.23). Four studies among children followed into adulthood found 14 to 20 year overtime-correlations between -0.11 and +0.31 (average +0.18). On that basis I estimated that happiness-rank in young adulthood explains only 10% of happiness-rank in late adulthood. My estimate was based on the square root of average correlations, disattenuated for measurement error.

Stones et al. read the data differently. They estimate the stability of happiness-rank among adults at 60% over ten years and 50% over forty years. The difference is in three things. Firstly, Stones et al base their estimate on the highest correlations observed. The average would seem more appropriate. Secondly, they do not use

the square root, but the full correlation. That is correct when one can assume that no real change has occurred in the true score in the interim. When the aim is to estimate change, the square root is most appropriate. Thirdly Stones et al. add 20% stability for “more rigorously validated measures”. The measures they aim at are probably the earlier discussed inventories that measure something else than happiness in my sense. So that revaluation does not apply either.

On the basis of this reading Stones et al. further conclude that “the temporal stability of happiness meets the requirements of a trait . . .” (135). That is a bridge too far. Even if one estimates overtime correlations high, one must still acknowledge that they may largely reflect situational stability. Subjects who are in an advantaged social position at the start, are likely to be relatively well off at later observations as well. Hence they will be relatively happy at both occasions, even if there is no happiness trait at all.

In this context, it is worth noting that my these overtime correlations have been observed in affluent nations in an era of stability. The stability of happiness-rank is likely to be considerably lower in poor countries (where one hits the bottom sooner) and in times of turbulence (where positions change more often).

Another thing to note is that my critics ignore my reference to the study of Chiroboga (1984), who found that 11 year overtime correlation disappears when initial personality and social status are controlled (p. 114).

### *Heritability of Happiness*

Temperament can affect both absolute happiness-level and relative happiness-rank. In my article the focus was on happiness level. The question was whether innate characteristics might predispose to a certain evaluation of life, irrespective of actual quality of life. In answer to that question I presented the results of a study on resemblance of happiness in mono- and dizygotic twins. In hindsight I had better left that out as well, because these data say more about relative happiness-rank. Yet again the issue deserves attention in its own right.

I cited a study by Wierzibicki (1986) who measured happiness by means of a mood diary. Average mood appeared more alike among mono-zygotic twins ( $r = +0.55$ ) than among di-zygotic twins

( $r = +0.15$ ). Given the still considerable mood differences among mono-zygotic twins, I gathered that genetic influence is 'modest'. I further noted that the genetic component may involve other traits than happiness-as-such ('constituents'). The observed momentaneous correspondence can also be in heritable 'facilitators' of happiness, that loose impact in the long run.

Stones et al rebut that the genetic factor is not at all modest. With heritability estimated by  $h = 2(r_{mz} - r_{dz})$  they calculate its contribution to happiness as 80%. They should have used  $h^2$ , which yields 64% in this case. I admit that this is more than modest.

Meanwhile I came across a similar study which involved acceptable items on life-satisfaction. This is Loehlin and Nichols (1976) study of 850 sets of twins. The correlations observed there are much lower: among mono-zygotic twins the average correlation is +0.21, among di-zygotic twins +0.10.<sup>9</sup> Disattenuated for measurement error, true correlations will be about +0.30 and +0.15.<sup>10</sup> This yields a heritability estimate of 10%. This is really modest.

The difference between these studies is possibly in the aspects of happiness measured. Affective tone may be more heritable than cognitive appreciation of life. This illustrates my contention that given characteristics do not always transpose identically to the evaluation of life.

## CONCLUSION

My critics refer to a different discussion, their arguments pertain to another issue, another concept of happiness and another notion of trait.

The initial question was whether a better society breeds happier people, and concerned fixedness of the 'absolute' happiness-level. The criticism is about permanence in 'relative' happiness-rank.

The original question concerned happiness in the sense of life-satisfaction. The critics conceive happiness as a broader 'personality' syndrome.

The initial notion of happiness 'trait' was quite specific, and concerned a disposition to judge life positively or negatively. The critics refer to 'trait' as continuity in all personal characteristics, including health.

The criticism is framed in notions of psychological personality research. That approach may bear relevance for the question whether differences in happiness can be reduced. Yet it is not appropriate for answering the question at stake: whether it is possible to raise the average level of happiness.

The counter evidence that would show that happiness is more trait-like than state-like is not convincing. The measures of happiness used are not appropriate and the interpretation of the data is not adequate.

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#### NOTES

<sup>1</sup> Another theory that denounces the possibility of creating greater happiness for a greater number is the theory that happiness is 'relative'. In this journal (SIR 24) I have inspected the evidence for that theory as well (Veenhoven, 1991).

<sup>2</sup> My critics depict this nul-hypothesis as a 'strawman'. This qualification would be correct if no one believed that happiness is immutable. That is not the case however. I cited several authors who stressed its fixed character (p. 104), for example Costa et al. (1987: 305) who wrote "...happiness is ultimately also independant of health, youth, power and other life-circumstances ...".

<sup>3</sup> Stones et al. see redundancy in this definition: 'overall quality' would be the same as 'life-as-a-whole' (p. 130). They are wrong.

The term 'overall' refers to the *criteria of evaluation* and emphasise that happiness-judgements cover all criteria. This is to distinguish with criterion-satisfactions, such as satisfaction with excitement in life.

The term 'life-as-a-whole' depicts the *object of evaluation*. This is to distinguish with domain-satisfactions, such as satisfaction with marriage. See Veenhoven (1984: 23).

<sup>4</sup> Stones et al. note that I focus on face-validity, and disregard traditional psychometric criteria, such as construct-validity, discriminant-validity and reliability. They are correct in that.

The point is that I restrict to indicators that unequivocally refer to happiness in the sense of 'the overall appreciation of one's life-as-a-whole'. The best way to do so is close reading of questions (face validity testing). Quantitative psychonometry is typically of little use for establishing substantive meaning. For that reason most indicators in my selection are single direct questions. Most multiple item inventories in this field mix up different things, things which may go together, but which still are not the same.

I am well aware that much psychological testing emphasises psychometrical consistency rather than substantive distinction, for instance IQ-tests. When these

instruments are used to predict behavior, that is not much of a problem. If IQ-scores adequately predict school success, we can live without a precise definition of intelligence. The case of happiness-measures is different however. These are used to assess a quality in its own right. Hence it must be clear that the measures tap that particular quality and not something else.

<sup>5</sup> If so, the long term stability of happiness will be lower than the long term stability of personality. This seems to be the case indeed. Overtime correlations of happiness are at least low over 10 to 30 year periods. See next paragraph.

<sup>6</sup> It is not clear whether this study really involves a follow-up or simply assesses co-variance between 'happiness' on one hand and 'situation' and 'personal characteristics' on the other. As I cannot figure out what this study involved precisely, I will refrain from further comment.

<sup>7</sup> This is the problem of the bottle half full or half empty. The results of study 3 can also be interpreted as showing that happiness is not insensitive to single minor changes in one's life-situation. If so, major cumulative change is likely to have a pervasive effect. The studies on summed life-events mentioned in Table 2 of my earlier article show this is the case indeed.

<sup>8</sup> Study 3 covers 18 month. The timespan of study 1 and 2 is not reported. I assume these studies cover a limited period as well.

<sup>9</sup> Analysis based on the items 464, 634, 654, 673 and 692 in appendix B.

<sup>10</sup> Assuming 0.70 reliability of these single items.

## REFERENCES

- Bradburn, N. M.: 1969, *The Structure of Psychological Well-Being* (Aldine, Chicago).
- Chiriboga, D. A.: 1984, 'Social stressors as antecedents of change', *Journal of Gerontology* 39, pp. 486-477.
- Costa, P. T., R. R. McCrae and A. B. Zonderman: 1987, 'Environmental and dispositional influences on well-being. Longitudinal follow-up of an American national sample', *British Journal of Psychology* 78, pp. 299-306.
- Kozma, A. and M. J. Stones: 1980, 'The measurement of happiness: Development of the Memorial University of Newfoundland Happiness Scale (MUNSH)', *Journal of Gerontology* 35, pp. 906-912.
- Lawton, M. P.: 1972, 'The dimensions of morale', in D. Kent, R. Kastenbaum and S. Sherwood (eds.), *Research Planning and Action for the Elderly* (Behavioral Publ., New York).
- Loehlin, J. C. and R. C. Nichols: 1976, *Heredity, Environment and Personality. A Study of 850 Sets of Twins* (University of Texas Press, Austin, USA).
- Radloff, L. S.: 1977, 'The CES-D scale: A self-report depression scale for research in the general population', *Applied Psychological Measurement* 1, pp. 385-322.
- Stones, M. J., T. Hadjistavopoulos, H. Tuuko and A. Kozma: 1995, 'Happiness has traitlike and statelike properties: a reply to Veenhoven', *Social Indicators Research* 36, pp. 129-144.
- Veenhoven, R.: 1984, *Conditions of Happiness* (Kluwer Academic, Dordrecht).
- Veenhoven, R.: 1991, 'Is happiness relative?', *Social Indicators Research* 24, pp. 1-34.

- Veenhoven, R.: 1994, 'Is happiness a trait? Tests of the theory that a better society does not make people any happier', *Social Indicators Research* 32, pp. 101–160.
- Veenhoven, R.: 1996, 'Developments in satisfaction research', *Social Indicators* 37, pp. 1–46.

*Erasmus University Rotterdam*  
*POB 1738, 3000DR, Rotterdam,*  
*The Netherlands*