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Explaining happiness

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What do social survey data tell us about the determinants of happiness? First, that the psychologists' setpoint model is questionable. Life events in the nonpecuniary domain, such as marriage, divorce, and serious disability, have a lasting effect on happiness, and do not simply deflect the average person temporarily above or below a setpoint given by genetics and personality. Second, mainstream economists' inference that in the pecuniary domain "more is better," based on revealed preference theory, is problematic. An increase in income, and thus in the goods at one's disposal, does not bring with it a lasting increase in happiness because of the negative effect on utility of hedonic adaptation and social comparison.

A better theory of happiness builds on the evidence that adaptation and social comparison affect utility less in the nonpecuniary than pecuniary domains. Because individuals fail to anticipate the extent to which adaptation and social comparison undermine expected utility in the pecuniary domain, they allocate an excessive amount of time to pecuniary goals, and shortchange nonpecuniary ends such as family life and health, reducing their happiness. There is need to devise policies that will yield better-informed individual preferences, and thereby increase individual and societal well-being.

Happiness | living level | health | marital status | aspirations

Introduction

I take the terms happiness, utility, well-being, life satisfaction, and welfare to be interchangeable and measured by the answer to a question such as that asked since 1972 in the United States General Social Survey (GSS): "Taken all together, how would you say things are these days – would you say that you are very happy, pretty happy, or not too happy?" A substantial methodological literature has developed on the reliability, validity, and comparability of the answers to such questions (1, 2, 3, 4). The consensus is that the responses, though not without their problems, are meaningful and reasonably comparable among groups of individuals. I focus here on the determinants of happiness, so measured.

My point of departure is the prevailing theories of well-being in psychology and economics. This is not to suggest that there is unanimity in either field; the theories discussed below are what one might view as the central tendency of each discipline. I try to take advantage of work in both fields plus social survey data to suggest the shape of a theory more consistent with what people say about how happy they feel.

In psychology, the tendency is towards "setpoint theory" (5, 6, 7, 8; see 9 for a good overview). Each individual is thought to have a setpoint of happiness given by genetics and personality. Life events such as marriage, loss of a job, and serious injury or disease may deflect a person above or below this setpoint, but in time hedonic adaptation will return an individual to the initial level. One setpoint theory writer states flatly that objective life circumstances have a negligible role to play in a theory of happiness (10, p. 18).

If the goal of public action is to improve well-being, this theory implies that economic and social policy is futile. Any measure taken to improve economic or social conditions can have only a transient effect on well-being, because each individual will in time revert to his or her given setpoint of happiness (cf. 11, p. 227). Moreover, if setpoint theory is correct, not only is public policy likely to be ineffective, there is little an individual can do to improve his or her well-being, except, perhaps, consult a psychologist.

In contrast, in economics, life circumstances, and particularly growth of income, are believed to have lasting effects on happiness. The prevailing theory might be termed "more is better." As a general matter economists prefer not to theorize about subjective states of mind and to deal only with observed behavior. Their argument, termed "revealed preference," is that if an individual is observed to buy a certain combination of goods, say x_2, y_2, when an alternative combination, x_1, y_1, is affordable with that person's given income and the prevailing prices, then (based on certain axioms) the individual is deemed to prefer x_2, y_2 to x_1, y_1 and hence, to be better off (12, 13). A major implication of this theory is that one can improve well-being by increasing one's own income, and that policy measures aimed at increasing the income of society as a whole lead to greater well-being. Economists recognize that happiness depends on a variety of circumstances besides material conditions, but they have long assumed that if income increases substantially, then overall well-being will move in the same direction (14, p. 3).

In what follows, I argue that neither the prevailing psychological nor economic theories are consistent with accumulating survey evidence on happiness, and based on this analysis, I try to sketch the outlines of a better theory. My empirical work takes, for

the most part, a life cycle approach, applying the demographer's technique of cohort analysis to survey data. In this procedure the same group of persons (a birth cohort) is sampled from one year to the next as it moves through adulthood. Generalizations about life cycle experience are obtained here by following each of several cohorts over the 28-year span between 1972 and 2000 covered by the GSS. Because some cohorts are at the beginning of the adult life cycle in 1972, while others are in their middle or later years, it is possible to infer patterns over the full adult life span by bringing together the different segments of life cycle experience represented by younger and older cohorts. The total sample size of the annual surveys is typically about 1500, except after 1994 when they are almost twice as great. I sometimes use three or five year averages in order to minimize the problem of small sample size that arises when one subdivides the total sample by characteristics such as age, gender, and health, marital, or work status. The three-option happiness question, when it is used, is scaled from 3 = very happy to 1 = not too happy to compute mean happiness for various population subgroups.

Is there a setpoint of happiness?

Let me start with the psychological theory. The critical issue here is not whether *any* adaptation to life events occurs, but whether adaptation is *complete*, that is, whether individuals return to their initial level of happiness, and, if so, how quickly. There are psychological studies that make clear that with respect to experiences such as loud noise and cosmetic surgery hedonic adaptation is typically less than complete, and that these experiences have a lasting effect on people's wellbeing (15). The survey evidence presented below suggests, in addition, that individuals do not fully adapt to changes in

either health or marital circumstances. Needless to say, I am speaking of average effects; there is considerable dispersion about the mean.

Health and happiness. The seminal article repeatedly cited in the psychology literature as demonstrating complete adaptation to adverse changes in health is a 1978 study (16) which reports that serious accident victims (paraplegics and quadriplegics), numbering 29, when compared with a group of controls, numbering 22, "did not appear nearly as unhappy as might have been expected" (p. 921). The sample size in this study is very small, but in any event, the study does *not* find that accident victims are as happy as controls. On the contrary, accident victims, compared with controls, "rated themselves significantly *less* happy" (p. 924, italics added). Setpoint (or "adaptation level") theory is saved only by introducing a quite different comparison, one between accident victims and an unspecified "what might have been expected."

There have been a number of studies since, some supporting the notion of complete adaptation, others contradicting it. To my knowledge the most comprehensive investigation is, like the one above, a point-of-time study (17). It examines the life satisfaction (on a 5 point scale) of a *national* sample of 675 persons reporting disabling conditions and compares them with a *national* sample of over 1,000 nondisabled persons. This study finds that the life satisfaction of those with disabilities is, on average, significantly less than those who report no disabilities (*ibid*., p. 13). Moreover, persons with disabilities are classified in various ways – according to the severity of the disability, whether the respondent suffers from one or multiple conditions, to what extent the respondent is limited in daily activities, and whether close others are thought to perceive

the respondent as disabled. On every one of these dimensions, happiness is less for those with more serious problems (*ibid*., pp. 10-12).

A question is sometimes raised as to which way the causal arrow runs – from health to life satisfaction or life satisfaction to health? If health is conceived unidimensionally, a plausible a priori argument can be made that life satisfaction affects health, as well as vice-versa. But when health is characterized multidimensionally, as in this study, the plausible inference is that greater health problems result systematically in less happiness.

These results suggest that, on average, an adverse change in health reduces life satisfaction, and the worse the change in health, the greater the reduction in life satisfaction. The results do not mean that no adaptation to disability occurs. The initial impact on happiness, say, of an accident or serious disease, is no doubt greater than its long term impact. Adjustment to a disabling condition may be facilitated by health devices such as hearing aids, medications, or wheelchairs, and by a support network of friends and relatives. Moreover, the extent of adaptation may vary depending on the personality or other characteristics of the individual affected. But the evidence does suggest that even with adaptation, there is, on average, a lasting negative effect on happiness of an adverse change in health.

Let me turn from health at a point in time to some life cycle evidence. There is no question that among adults real health problems increase as people age. But what do persons *say* about their health? If adaptation were complete to adverse changes in health, then the life course trend in self-reported health should be flat. It would also be flat if

persons implicitly evaluate their health only by comparison with others of their age. Is it true that self-reported health doesn't change?

The answer is no, self-reported health declines throughout the life course. Since 1972, the GSS has asked the following question: "Would you say your own health, in general, is excellent, good, fair, or poor?" (18, p. 172). If one follows successively older ten-year birth cohorts for 28-year segments of the life span, one finds for each cohort a clear (and statistically significant) downtrend in mean self-reported health (Figure 1). (The mean health rating is obtained by scaling the responses from excellent = 4 down to poor = 1.) In the two oldest cohorts – those in their sixties and seventies – the apparent leveling off of self-reported health is due to the truncation of the sample caused by mortality; those reporting poorer health do, in fact, die more rapidly (20, 21). The conclusion suggested by the data on self-reported health is the same as that for the preceding data on disability. There is not complete hedonic adaptation to adverse changes in health.

This analysis, of course, assesses adaptation in terms of self-reported health, not well-being, as in the disability analysis. Perhaps health might get worse, but people do not feel unhappy about it. Throughout the life cycle, however, those who report they are less healthy also say they are less happy. In cohorts spanning ages from the twenties through the seventies happiness is systematically less, on average, the poorer the state of self-reported health (Table 1). This is consistent with the results above on how life satisfaction is related to various disabling conditions and with numerous multivariate studies that find significant positive associations between happiness and self-reported health (2, 3, 22, 23, 24). These studies, which, among other things, control for income,

make clear that the negative impact of poorer health on happiness is due to nonpecuniary effects as well as loss of income due to poor health. The conclusion to which all of these findings consistently lead is that adverse health changes have a lasting and negative effect on happiness, and that there is less than complete adaptation to deteriorating health.

Marital status and happiness. Despite claims by setpoint theory proponents that life circumstances have virtually no lasting effect on well-being, little evidence on marital formation or dissolution has been advanced supporting setpoint theory. There is, however, one important new study, using German longitudinal data, that examines the effects on well-being of marriage and widowhood (9). Although presented as a critique of the setpoint model, it is actually supportive, especially as regards marriage, for it concludes: "[O]n average, people adapt quickly and completely to marriage, and they adapt more slowly to widowhood (though even in this case, adaptation is close to complete after about 8 years)" (*ibid*., p. 538).

Study of the life cycle experience of cohorts, however, suggests a substantial departure from the setpoint model. At ages 18-19 when most women and virtually all men have not yet married, their mean happiness is around 2.1; over the next ten years, as up to 50 percent or more of a cohort becomes married, those who are married report significantly higher happiness levels, on average, around 2.2 to 2.3, while those who have never married remain at about 2.1. (See Figure 2 for females; the pattern for males is quite similar.)

These results cannot be due to selection effects. Persons who marry in the first decade of the adult life cycle could not have been happier than others, on average, before they got married. If this were true, then as these persons married and left the never-

married group, the average happiness of the remaining never-married would fall. In fact, the happiness of those never-married remains constant as more and more persons marry and exit the group (Figure 2). As a result, the mean happiness of the cohort as a whole increases as the proportion married increases; note in Figure 2 that the curve for all persons starts close to 2.1 and ends above 2.2.

Beyond age 30 the proportion of a cohort currently married tends to level off and then decline as the effect of marital dissolution due to divorce, separation, and widowhood gradually outweighs that due to the formation of unions through marriage and remarriage. Throughout the adult life cycle, however, the gap in average happiness persists between those who are currently married and those who are not. (See Figure 3 for females; the pattern for males is again similar).

Remarriage has the same positive effect on happiness as a first marriage. When the cohort data for married persons in Figure 3 are divided between those who are still in their first marriage and those who are remarried, there is no significant difference in happiness between the two groups. If respondents are asked specifically about their marital satisfaction, rather than overall happiness, it is again true that those who are remarried are, on average, as satisfied with their marriage as those still in their first marriage.

Comparisons across cohorts suggest that happiness does not decline with duration of marriage. For those still in their first marriage the average length of marriage ranges from around 10 years or less in the cohort of 1951-60 to over 35 years in the cohort of 1921-30. (Duration of marriage for remarried persons is not available in the GSS data.) The mean level of both overall happiness and marital happiness for these two cohorts is

virtually the same despite their much different marriage durations, and is significantly greater than that of unmarried persons in their cohorts.

None of these life cycle marriage patterns squares easily with the notion that married persons are reverting "quickly and completely" to their average level of happiness prior to marriage. As a cohort enters into marriage, the happiness of married persons is significantly greater than the unmarried and, if anything, increasing. Throughout the life cycle the happiness of married persons, whether remarried or continuously married, remains significantly higher than others. Moreover, even after 35 years of marriage, the happiness of those still in their first marriage remains significantly greater than that of their unmarried counterparts.

Just as marriage affects happiness positively, the dissolution of marriage has a negative impact. As has been seen, the mean happiness of women not currently married is significantly below that of their married counterparts. Within the unmarried group, however, those with broken marriages, that is, the divorced, separated, or widowed, are significantly less happy than those who never married (Table 2). One might speculate that personality has sorted out those who are divorced or separated, but there is no significant happiness difference between them and those who are widowed. The widowed are unlikely to have been selected on the basis of personality, and the fact that their mean happiness and that of the divorced or separated group is virtually the same suggests that one is observing here the effect of marital dissolution on happiness, not the selective effect of personality differences.

Results supporting these findings from cohort analysis can be found in a recent longitudinal study by sociologists that follows a group of 5,000 married Americans over a

five year period (25). At the end of the period there is no significant change in the

happiness of those who remained married, and the happiness of persons who remarried

after becoming divorced is not significantly different from those who stayed married. In

contrast, mean happiness among those who separated, or divorced and did not remarry, is

significantly less than that of the married.

These life cycle results on marital status and happiness from both cohort analysis

and panel data are consistent with cross sectional regression analyses of the marriage-

happiness relationship in which controls are introduced for a variety of socio-economic

circumstances (2, 3, 22, 23), and with other studies that focus on specific marital

conditions such as divorce or widowhood (26, 27). The study of German data (9) cited at

the beginning of this section that concludes that people adapt to marriage "quickly and

completely" is at variance with this sizeable body of evidence. It is contradicted

specifically by the cohort patterns in the American data presented here, because the

findings of the German study imply that the mean happiness of married persons would

decrease as a cohort enters into marriage. To see this, let t_o be the year of marriage. The

German study finds a temporary elevation in life satisfaction from *t-1* to *t+1* but that

mean life satisfaction at *t+2* and thereafter reverts to its average at *t-2* and before. For

simplicity, suppose that the pattern in the German study characterized all persons in a

cohort as they aged from 18, when none was married, to 29 when half were married.

Then the *initial* life satisfaction of married persons in the cohort would be at its

maximum value, because all of them would be in the honeymoon period at t_o and *t+1*. In

subsequent years, however, the honeymoon happiness of those newly marrying would be

increasingly offset by the return to their *t-2* level of those in the cohort who were married

first, and the average life satisfaction of married persons as a whole would trend downward. Such a decline for married persons does not occur in the cohort data studied here for either females (Figure 2) or males.

I do not know why the analysis of German data yields contradictory results; but it is worth noting that the study, although drawing on longitudinal data, does not actually follow the same individuals over time. Although there is overlap, the three groups that are the basis of the statistical analysis – the "honeymoon" group at $t-1$ to $t+1$, those at $t+2$ and thereafter, and those at $t-2$ and before – are not the same in their composition.

In sum, the bulk of evidence suggests that the formation of unions has a lasting positive effect on happiness, while dissolution has a permanently negative effect. This does not mean that no adaptation occurs after unions are formed or dissolved, but the adaptation that occurs is less than complete. If the setpoint model of happiness is correct, it is hard to see how one can reconcile it with the survey evidence on marriage, as well as health.

Note should be made of other GSS evidence on happiness that is difficult to square with the setpoint model. Throughout the life cycle blacks are consistently less happy than whites (28). It seems doubtful that this difference by race is a result simply of different average setpoints resulting from genetic and personality differences. Also, beyond age 60, the life cycle excess of female over male happiness is reversed; it is hard to explain this without reference to differences by gender in the incidence of life events, especially widowhood, after age 60 (29).

Is More Better?

To turn to economic theory, a basic problem with the revealed preference approach is that

the judgment on a person's happiness is made, not by the individual concerned, but by an

outsider who is observing the person's consumption choices (30). If one takes the view

that the only one who can make authoritative judgments on a person's feelings of well-

being is the person concerned, then one is led to look at self reports on well-being.

Does the survey evidence support the view that income and happiness go together?

The answer depends on whether one looks at cross sectional or time series data. Support

for the hypothesis of a positive association comes from point-of-time regressions, which

invariably find a significant positive association between income and happiness, with or

without controls for other factors (2, 3, 22, 23, 31). Over the life cycle, however, as

income increases and then levels off, happiness remains unchanged, contradicting the

inference that income and well-being go together (32, 33, ?see cover?).

If one uses education as a proxy for income, then the life cycle data reveal both of

these relationships. At any given age those with more education are happier than those

with less (Figure 4; see 33 for other cohorts). What is even more noteworthy, however, is

the life cycle trend in happiness for the more and less educated. If happiness were

moving in accordance with the income of each group, then the happiness of both groups

would increase, with that of the better educated increasing more, and the happiness

differential by educational status widening. In fact, there is no significant trend in

happiness for either educational group, or in the happiness differential (*ibid*.). Although

those fortunate enough to start out with higher income and education remain, on average,

happier throughout the life cycle than those of lower socio-economic status, there is no evidence for either group that happiness increases with income.

These life cycle patterns clearly contradict the expectation based on economic theory that happiness increases with income. They do, however, support the setpoint model; indeed, these findings have appropriately been cited by psychologists in support of complete hedonic adaptation. But while there may be complete hedonic adaptation with regard to income, this does not mean that there is complete adaptation with regard to all sources of happiness. As has been seen, the evidence on health and marriage suggests that adaptation in these areas is less than complete, and that changes in these circumstances have a lasting effect on well-being.

Aspirations and adaptation

Why should the extent of adaptation differ with regard to the life circumstances, or, as psychologists say, "domain," under study? The answer, I suggest, is that people's *aspirations* in each domain respond differently to changes in their circumstances. Complete adaptation implies that aspirations change to the same extent as one's actual circumstances. This seems to be what happens when income changes. Material aspirations increase commensurately with income, and, as a result, one gets no nearer to or farther away from the attainment of one's material goals, and well-being is unchanged. Less than complete adaptation means that aspirations change less than the actual change in one's circumstances. If one's actual circumstances change for the better (a happy marriage), there is greater goal-fulfillment and well-being increases; if, for the worse

(divorce), there is a greater shortfall from one's goals, and well-being declines. This seems to be what happens in the marriage and health domains.

Is there evidence that the response of aspirations to actual circumstances varies by domain? For the economic and family domains, the answer is yes. In what follows, I draw chiefly on nationally representative surveys taken in 1978 and 1994 that include questions on the "good life"(34, 35). In these surveys the questioning procedure is as follows:

1. We often hear people talk about what they want out of life. Here are a number of different things. [The respondent is handed a card with a list of 24 items.] When you think of the good life – the life you'd like to have, which of the things on this list, if any, are part of that good life as far as you personally are concerned?

2. Now would you go down that list and call off all the things you now have?

The special value of these two questions is that they yield information rarely available – on both aspirations and the attainment of aspirations. The answers to question 1 tell us about desires for certain goods and also for marriage and a family – whether they are viewed as part of the good life, "the life you'd like to have." Those to question 2 tell us where the respondents stand in relation to these desires – to what extent they are fulfilled. By comparing a cohort's aspirations and attainments in 1978 and 1994, it is possible to determine to what extent aspirations change in both the material goods and family domains as a cohort's actual circumstances change.

Let me start with ten big-ticket consumer goods that are included on the "good life" list, ranging from a home, car, and television set to travel abroad, a swimming pool, and a vacation home. Over each stage of the life cycle people typically acquire more of

these big-ticket items (Table 3, lines A-1, B-1, C-1). But their aspirations for these goods
-- what they view as part of the good life -- also rise (lines A-2, B-2, C-2). Moreover, the
increase in the number of goods desired is, on average, roughly equal in magnitude to
that in the average number owned (panel D, column 3).

What is happening is that as people acquire those goods for which aspirations
were fairly high to start with (a home, a car, a TV) their aspirations increase for goods
which were initially much less likely to be viewed as part of the good life. In each
segment of the life cycle, travel abroad, a swimming pool, and a vacation home are
increasingly named as part of the good life, reaching values of around 40 percent or more
of respondents. The proportion that ever actually has any of these items, however, is
typically less than 10 percent. This suggests that new material aspirations arise as
previous ones are satisfied, and, to judge from the mean number of goods desired, to
about the same extent.

This inference of complete adaptation in the economic domain is further
supported if we divide the cohort by level of education. In each segment of the life cycle
the increase in the number of goods owned is greater for those with more education, as
one would expect based on their greater income growth, but the increase in number of
goods desired is also greater for those with more education. Moreover, for both
educational groups, the increase in desires is of the same order of magnitude as the
increase in the number of goods owned. Thus, material aspirations are increasing
commensurately with material possessions, and the greater the increase in possessions,
the greater the increase in desires. It is this differential change in aspirations
corresponding to the differential change in income that explains the constancy of

happiness over the life cycle for each educational group (33). The point-of-time

happiness differential is also explained by aspirations (*ibid.*). At the start of the adult life

cycle, material aspirations differ very little between the two education groups; hence the

better-educated come closer to fulfilling their aspirations, and are happier. Subsequently,

aspirations rise more for the better-educated, but at any point in time the dispersion in

aspirations relative to that in income continues to be the same, and the happiness

differential by education persists.

The responses cited so far are for specific goods. Is there evidence suggesting

that income aspirations in general rise in proportion to income? The answer is yes.

Consider the answers from a different survey that asks people how much income is

needed by a family of four to get along. Over a 36-year period "get along" income

increases, on average, to the same degree as actual income (36).

To turn to the family domain, the desire for a happy marriage is a common one.

At every point in the life cycle, three-quarters or more of respondents say that a happy

marriage is part of the good life. The proportion that actually has a happy marriage,

however, is considerably less, averaging a little over one-half.

If adaptation were complete, then one would expect that persons who are not in a

happy marriage would eventually give up their desires for such a marriage. In fact,

aspirations for a happy marriage persist among more than half of those respondents who

do not actually have one (Table 4, column 1). Among never-married persons ages 45 and

over, that is, persons who have been *single* their entire lives, more than four in ten cite a

happy marriage as part of the good life as far as they personally are concerned (col. 3).

Among widows and divorcees 45 years and older, for whom the prospect of remarriage is

low, more than half continue to aspire to a happy marriage (col. 3). Thus, for around half of unmarried persons who have little prospect of marrying, aspirations have not adjusted to their actual marital circumstances. In contrast to the economic domain, hedonic adaptation seems to be occurring only to a limited extent with regard to marriage circumstances. The substantial persistence of the desire for a happy marriage among those widowed, divorced, and never-married explains, I believe, why these groups are less happy, on average, than married persons, among whom aspirations for a happy marriage are more nearly fulfilled.

In addition to marriage aspirations, the "good life" survey elicits information on aspirations regarding number and "quality" of children, quality being indicated by desires for a college education for one's children. While income growth over the life cycle is accompanied by persistent growth in aspirations for big ticket consumer goods, income growth is not associated with growth in desires for either the number or quality of children.

I have no data on health aspirations, but I suspect that aspirations for "good health" persist even as actual health deteriorates, and adaptation to worsening health is consequently less than complete. I think there is evidence of less than complete adaptation in regard to other life circumstances as well, such as friendship, loss of a job, and retirement (29, 37-41).

Explaining happiness

We can now begin to see the outlines of a better theory of how life events affect happiness. Let us start with the economist's notion that the typical individual has a utility

or happiness function such that well-being depends on a variety of pecuniary and nonpecuniary conditions, or domains. The typical person is taken to have certain goals or aspirations and a current state of attainment in each domain. The overall happiness of the individual depends on the shortfall between aspirations and attainments in each domain, and the relative importance of each domain in the individual's utility function.

Economic theory typically assumes that well-being depends only on attainments. However, there are two strands of theory – habit formation and interdependent preferences – that recognize the effect on well-being of aspirations. Habit formation stresses that the utility one derives from a given set of goods is affected by comparisons with one's past experience (42, 43). Interdependent preferences points out that the utility created by one's having a given amount of a good depends partly on the amount of that good that others have (44, 45). The counterpart in psychology of the economists' concept of habit formation is hedonic adaptation (15, 46, 47), and of interdependent preferences, social comparison (48). I use the psychologists' terms in what follows, because these are more common in the literature on subjective well-being.

The central point of the present theory of happiness is that neither hedonic adaptation nor social comparison operate equally across all domains or constituents of domains. Hedonic adaptation, as we have seen, is less complete with regard to family circumstances and health than in the material goods domain. I suggest that social comparison is also less in family life and health than in the material goods domain, because these circumstances are less accessible to public scrutiny than material possessions.

Moreover, hedonic adaptation and social comparison may not operate equally with regard to all constituents of a given domain. With regard to the material goods domain, Scitovsky (49) has argued that cultural goods, such as music, literature, and art, are less subject to hedonic adaptation than "comfort" goods, like homes and cars. Similarly, the distinction drawn between positional and nonpositional goods by Frank (50), Hirsch (51), and Ng (52) is an example of a classification of goods based on whether or not their utility is affected by social comparison.

Each individual has only a given amount of time to allocate among different domains and their constituents. Clearly, the happiness of an individual can be maximized by allocating his or her time to those domains and constituents of domains in which hedonic adaptation and social comparison are less important.

Do individuals achieve the optimal allocation of time among domains and the constituents thereof? My answer is no; people allocate a disproportionate amount of time to the pursuit of pecuniary rather than nonpecuniary objectives, as well as to "comfort" and positional goods, and shortchange goals that will have a more lasting effect on well-being (cf. also 53). This misallocation occurs because in making decisions about how to use their time, individuals take their aspirations as fixed at their present levels, and fail to recognize that aspirations may change because of hedonic adaptation and social comparison. In particular, people make decisions assuming that more income, comfort, and positional goods will make them happier, failing to recognize that hedonic adaptation and social comparison will come into play, raise their aspirations to about the same extent as their actual gains, and leave them feeling no happier than before. As a result, most individuals spend a disproportionate amount of their lives working in order to make

money, and sacrifice family life and health, domains in which aspirations remain fairly constant as actual circumstances change, and where the attainment of one's goals has a more lasting impact on happiness. Hence, a reallocation of time in favor of family life and health would, on average, increase individual happiness.

One may ask if social learning occurs – don't people eventually realize how their material aspirations escalate with economic achievement, and become aware of the self-defeating nature of the pursuit of pecuniary goals? The answer is no, because the change in material aspirations itself works against social learning. When asked how happy they were five years ago, people, on average, systematically understate their well-being at that time, because they evaluate their past situation in terms, not of the lower material aspirations they actually had at that time, but on the basis of the new higher level of aspirations they have now acquired (33, 55). As a result, they tend to think they are better off than they were in the past, rather than realizing that there has been no net improvement.

I have been focusing on the effect of life circumstances on happiness, because these are conditions through which happiness may be especially increased by individual and social action. Life circumstances other than those discussed here, such as friendships, work, and employment status, affect happiness too, but income, family, and health conditions are typically cited most often by people as sources of happiness (56). Personality and genetic factors also affect happiness, of course. The interplay between life events and personality in shaping happiness at the individual level is an important subject for research (cf. 54, chapter 9). So too are the psychological, social, biological, and evolutionary mechanisms underlying the relationships reported here, including the

question of why the adjustment of aspirations to actual circumstances differs by domain (cf. 15, p. 314).

Economic policy proposals to improve well-being are typically directed towards altering the socio-economic environment, but not to changing individual preferences. Viewed in terms of the present analysis policies to improve health or facilitate more time with one's family are consistent with greater happiness. But the present analysis implies that preferences too are an appropriate policy concern. The reason preferences are excluded from policy consideration by mainstream economics is because each individual is assumed to be the best judge of his or her own interests. But if individuals are making decisions in ignorance of the effect that hedonic adaptation and social comparison will have on their aspirations, this assumption no longer holds. Once it is recognized that individuals are unaware of some of the forces shaping their choices, it can no longer be argued that they will successfully maximize their well-being. It is, perhaps, time to recognize that serious attention is needed to devising measures that may contribute to more informed preferences (cf. 49, 57).

Table 1

Mean Happiness by Self-Reported Health Status,

Birth Cohorts over Indicated Age Spans, 1972-2000

(1)	(2)	(3)	(4)	(5)	(6)
		Mean happiness			
Birth	Age	Excell.	Good	Fair	Poor
cohort	span	health	health	health	health
1951-60	23 to 45	.36	2.12	1.85	1.63
1941-50	27 to 55	2.37	2.17	1.92	1.74
1931-40	37 to 65	2.43	2.23	1.98	1.74
1921-30	47 to 75	2.48	2.24	2.06	1.83
1911-20	57 to 85	2.52	2.27	2.12	1.96

Source: (19)

Table 2

Mean Happiness of Unmarried Women by

Marital Status, Specified Birth Cohort, 1972-2000

(1)	(2)	(3)	(4)
	Mean happiness		
Birth		Divorced	Never
cohort	Widowed	or separated	married
1951-60	1.98	1.96	2.07
1941-50	1.95	2.01	2.05
1931-40	2.00	1.97	2.11
1921-30	1.97	2.00	2.15

Source: (19).

Table 3

Ownership of and Desires for Ten Big-Ticket Consumer Goods

Over Three 16-Year Segments of the Adult Life Cycle[*]

	(1)	(2)	(3)
	Stage of life cycle segment		Change over life cycle
	Start	End	segment
A. Early life cycle			
1. Mean number of goods owned	1.7	3.1	+1.4
2. Mean number of goods desired	4.4	5.6	+1.2
B. Mid life cycle			
1. Mean number of goods owned	2.5	3.2	+0.7
2. Mean number of goods desired	4.3	5.4	+1.1
C. Late life cycle			
1. Mean number of goods owned	3.0	3.2	+0.2
2. Mean number of goods desired	4.4	5.0	+0.6
D. Average for all three segments			
1. Change in mean number of goods owned	--	--	+0.8
2. Change in mean number of goods desired	--	--	+1.0

* Early life cycle is from ages 18-29 in 1978 to 30-44 in 1994. Mid life cycle is

from ages 30-44 in 1978 to 45-59 in 1994. Late life cycle is from ages 45-59 in 1978

to 60 and over in 1994. Source: (34, 35)

Table 4

Percent Wanting a Happy Marriage Among Persons

Who Do Not Have One, by Marital Status and Age,1994

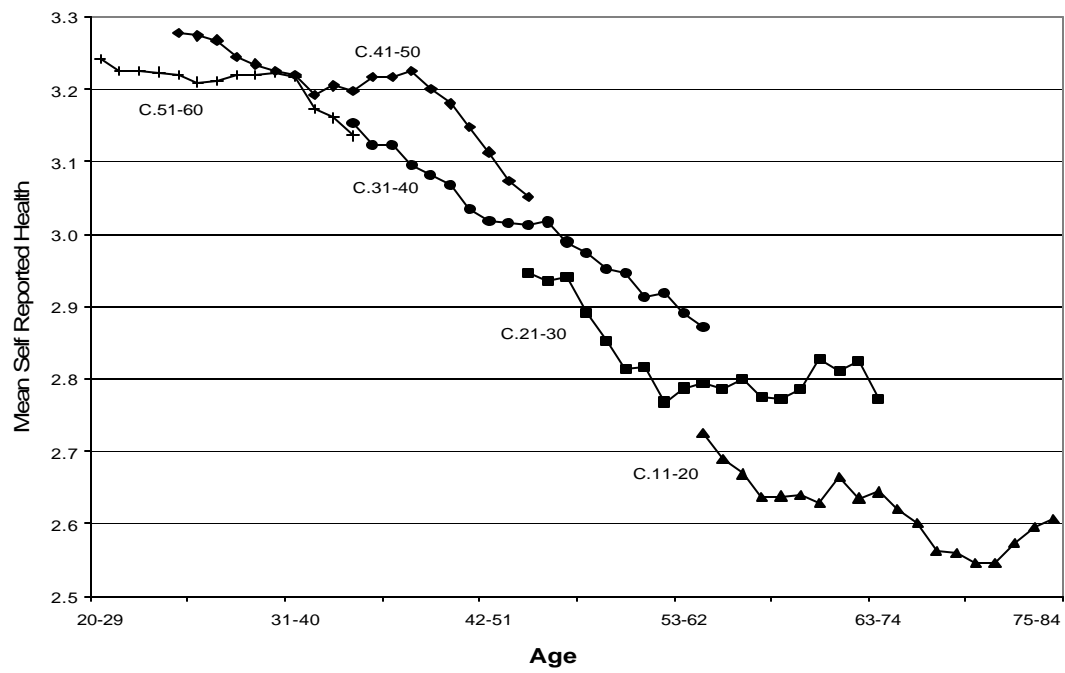| | (1) | (2) | (3) |
	Percent wanting happy		
	marriage		
	All	Ages	Ages 45
Marital status	ages	18-44	and over
Married, not in			
happy marriage	56	8	55
Divorced or separated	63	73	55
Widowed	62	*	62
Never-married	65	68	43

* Sample size less than 20.
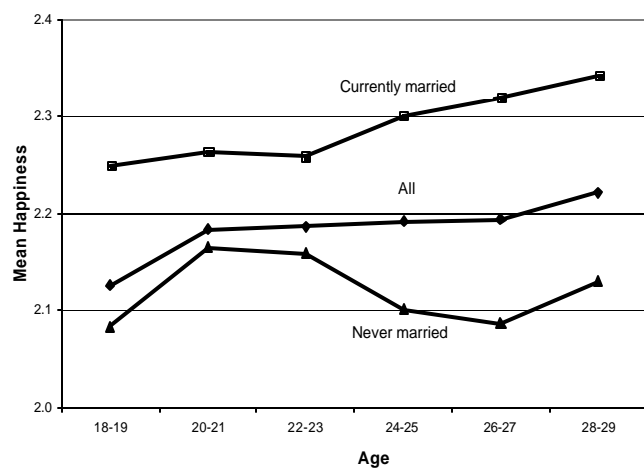
Source: (34, 35)

Figure Legends

Figure 1: Mean self-reported health, cohorts of 1911-20 to 1951-60, by age. Five year average centered at each age. Source (19).
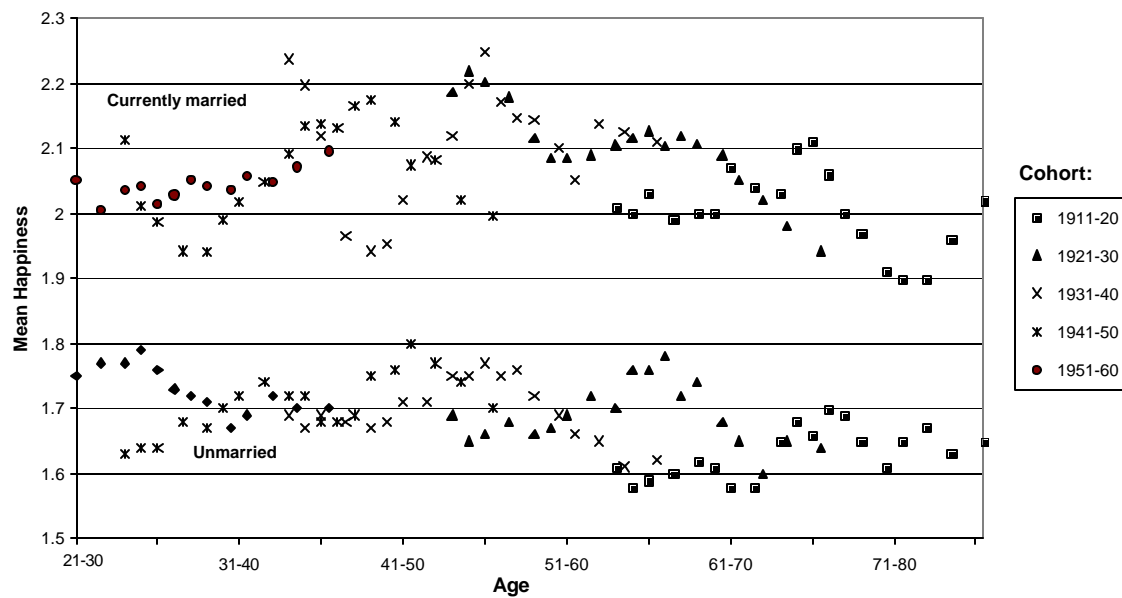
Figure 2: Mean happiness of females by marital status, birth cohort of 1953-72 from ages 18-19 to 28-29. Source (19).
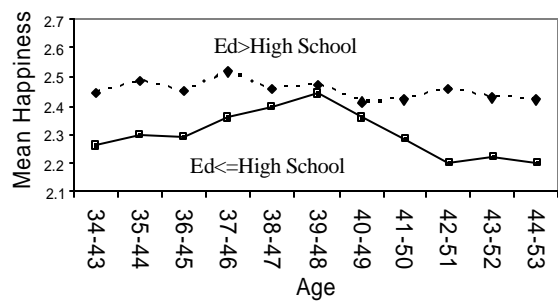
Figure 3: Mean happiness of currently married and unmarried females in specified birth cohort, by age. Five year average centered at each age. Source (19).

Figure 4: Mean happiness, cohort of 1941-50 by level of education and age. Three year average centered at each age. Source (19).

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