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Technological Progress and Human Happiness

by

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1. Stagesetting

Does increased knowledge of nature and technological mastery over it enhance man's happiness and satisfaction, or is what we honorifically — nay almost reverently — characterize as “progress” really irrelevant to this central issue regarding the human condition?

This question lies at the dead center of any examination of the relationship between technology and humanistic concerns. It goes to the very heart of the matter — the linkage between man's knowledge and “mastery over nature” on the one side, and his humane life-world of thought and feeling on the other. It is a question which theoreticians of science and technology generally ignore. But humanists have often touched on it. (It may be viewed as a key issue in Goethe's Faust, for example.)

Writing in 1920, the able British historian of progress J.B. Bury painted a picture in the following terms:

The very increase of “material ease” seemed unavoidably to involve conditions ~~inconsistent~~ with universal happiness; and the communications which linked the peoples of the world together modified the methods of warfare instead of bringing peace.... (The modern) triumphs of the advance of man's aims hardly seemed to endanger the conclusion that, while knowledge is indefinitely progressive, there is no good reason for sanguine hopes that the condition of man is “perfectible” or that universal happiness is attainable.

This quote provides an appropriate stagesetting for deliberating about the implications of the impressive modern growth in our technological competence for human happiness and the tenor of the condition of man.

2. The Historical Dimension

Let us look briefly at the historical dimension of this issue. The question of the reality and significance of progress has been debated since the “quarrel between the ancient and the moderns” — regarding the relative importance of the wisdom of classical antiquity as compared with modern learning — was launched in the late Renaissance. Now at the dawn of modern science in the 17th century, the leading figures from Bacon to Leibniz all took a highly optimistic view. Man's knowledge was about to enter a new era, and his circumstances and conditions of life would become transformed in consequence. Consider a typical passage from Leibniz:

I believe that one of the biggest reasons for this negligence (of science and its applications) is the despair of improving matters and the very bad opinion entertained of human nature.... But... would it not be fitting at least to make a trial of our power before

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despairing of success? Do we not see every day new discoveries not only in the arts but also in science and in medicine? Why should it not be possible to secure some considerable relief from our troubles. I shall be told that so many centuries had worked fruitlessly. But considering the matter more closely, we see that the majority of those who dealt with the sciences have simply copied from one another or amused themselves. It is almost a disgrace to nature that so few have truly worked to make discoveries; we owe nearly everything we know...to a handful of persons.... I do believe that if a great Monarch would make some powerful effort, or if a considerable number of individuals of ability were freed from other concerns to take up the required labor, that we could make great progress in a short time, and even enjoy the fruits of our labors ourselves.¹

Such a perspective typifies the 17th century view of the potential of scientific and technical progress for making rapid and substantial improvements on the human condition.

By the 19th century the bloom of ameliorative hopefulness was definitely beginning to fade. The lines of thought worked by Malthus and Darwin introduced a new element of competition, struggle, and the pressure of man against man in rivalry for the bounties of nature. The idea that scientific and technological progress would result in enhanced human satisfaction/contentment/happiness came to be seriously questioned. Writing around 1860, the shrewd German philosopher Hermann Lotze said:

The innumerable individual steps of progress in knowledge and capability which have unquestionably been made as regards this production and management of external goods, have as yet by no means become combined, so as to form a general advance in the happiness of life.... Each step of progress with the increase of strength it brings, brings also a corresponding increase of pressure....²

Thus already over a century ago, thoughtful minds were beginning to doubt that man's technical progress provides him with a royal route to happiness.

3. Some Distinctions

Before turning to an exploration of this issue, let me get one or two important preliminary points out of the way. For one thing, it is necessary to approach the issue of the human advantageousness of technical progress via the important distinction between negative and positive benefits. A negative benefit is the removal or diminution of something bad. (It is illustrated in caricature by the story of the man who liked to knock his head against the wall because it felt so good when he stopped.) A positive benefit on the other hand is one which the addition of something that is good in its own right rather than by way of contrast with an unfortunate predecessor.

Now there is no doubt that the state of human well-being has, or can be, enormously improved by science and technology as far as negative benefits are concerned. There can be no question but that technical progress has enormously reduced human misery and suffering. Consider a few instances:

1. medicine (the prevention of childhood diseases, through inoculation, anaesthetics, plastic and restorative surgery, etc.);
2. waste disposal and sanitation;
3. temperature control (heating and air conditioning).

It would be easy to multiply examples of this sort many times over.

But the key fact remains that such diminutions of the bad does not add up to a good: that the lessening of suffering and discomfort does not produce a positive condition like pleasure or joy or happiness or the like. Pleasure is not the mere absence of pain, nor joy the absence of sorrow. The removal of the negative does not create a positive — though, to be sure, it abolishes an obstacle in the way of positivity. And so the immense potential of modern science and technology for the alleviation of suffering does not automatically qualify it as a fountain of happiness.

Moreover, in various ways science and technology have created a setting for life which is counterproductive from the angle of happiness. One instance is modern military technology and life under the shadow of the atomic sword. Another example is the overcrowding of human populations — the product largely of modern medical, hygienic, and agricultural technology. There is organizational centralization that has put all of us at risk as victims of disgruntled employees, irate consumers, disaffected citizens, political terrorists, and other devotees of direct action against innocent bystanders as a means to the realization of their own objectives. This list of such happiness-counterproductive areas of modern technology is easily prolonged. But here I want to make a larger and perhaps foolhardy assumption. For I am simply going to adopt the somewhat optimistic stance that all such problems which science and technology has created, science and technology can also resolve. And accordingly I am going to leave this negative aspect of the situation wholly out of account, and to look at the situation if best comes to best, so to speak.

The question to be faced here is accordingly this: even if we view the consequences of science and technology for the human condition in the most rosy light and look on them in their most favorable setting — not Ethiopia, say, or India, but the USA and Western Europe where the most advantageous and least problematic conditions have prevailed — is it really clear that science and technology have wrought benign effects upon the condition of human happiness, viewed in its positive aspect?

4. Transition: The Sociological Perspective

To this point we have considered what might be called the philosophical background of the issue. Let us now move off in a different direction.

The issue nowadays has a new dimension. In the past, discussion has proceeded on a speculative basis, and the participants were principally philosophers and philosophically inclined historians of students of social affairs. But nowadays the sociologists and social psychologists have taken over. It thus becomes possible to bring statistical data to bear and to look at the empirical situation. We need no longer speculate about the relation between progress and happiness. We can “go out into the field” and find out how things go in what tough-minded social scientists like to refer to as “the real world.” That is, we can proceed by means of questionnaires and the whole paraphernalia of empirical social science. When we do this, all but the most cynical among us are in for some surprises.

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5. The Negative Correlation Between Progress and Perceived Happiness

If the thesis that increased physical well-being brings increased happiness were correct, one would certainly expect Americans to regard themselves as substantially happier today than ever before. This expectation is certainly not realized.

A substantial body of questionnaire data has been completed over the recent years that makes possible a survey of trends in the self-evaluated happiness of Americans. Operating with increasing sophistication, various polling organizations have made their rounds taking massive samples of representative Americans as to their degree of happiness: whether "very happy" or "fairly happy" or "not happy" — or the usual "don't know." Some relevant findings are set out in schematic form in Table 1. There is doubtless some looseness in the comparison of these data collected by somewhat different procedures by different organizations.³ But a relatively clear and meaningful picture emerges all the same: The result emerges that there simply has been no marked and significant increase in the self-perceived happiness of Americans to accompany the very substantial rise in the standard of living that has been achieved in the postwar period.

Table 1

Self-Classification of Americans in Point of Happiness
(Results of some Questionnaire Studies)

Year and Organization	Very Happy	Fairly Happy	Not Happy	Don't Know	Score ^d
1946 (AIPO) ^a	39%	50%	9%	2%	110
1947	38	57	4	1	125
1949	43	44	12	1	106
1957 (SRC) ^b	35	54	11		102
1963 (NORC) ^c	32	51	16		83
1965 (NORC) ^c	30	53	17		79

- a. AIPO = American Institute of Public Opinion, Princeton, New Jersey (Gallup Organization). Data from Hazel Erskine, "The Polls: Some Thoughts about Life and People," Public Opinion Quarterly 28, no. 3 (Fall, 1964): 517-528. 1977 data from AIPO news releases.
- b. SRC = Survey Research Center, University of Michigan. Data from Gerald Gruin, Joseph Veroff, and Sheila Feld, Americans View Their Mental Health (Basic Books: New York, 1960), p. 22
- c. NORC = National Opinion Research Center, University of Chicago. Data from Norman M. Bradburn, The Structure of Psychological Well-Being (Chicago: Aldine-Atherton, 1969), chap. 3, table 3.1
- d. In computing the "score" we set very happy = +2, fairly happy = +1, not happy = -2, and don't know = 0.

Moreover, for about a generation now sociologists and social psychologists have gone about asking people for their judgments regarding the correlation between human happiness (contentment, satisfaction) in the face of a steadily rising standard of living. All of the armaments of questionnaires and public opinion ranking

have been brought to bear on our central question of the relation between progress and happiness. Consider some illustrations:

— Do you think Americans were happier and more contented thirty years ago than they are today? (AIPO, 1939)

Yes	No	No Opinion
61%	23%	16%

— Science has made many changes in the way people live today as compared with the way they lived fifty years ago. On the whole, do you think people are happier than they were fifty years ago because of those changes, or not happy? (Roper/Minnesota, 1955)

Happier	Not as Happy	No Difference	No Opinion/Other
36%	47%	15%	3%

— Thinking of life today compared to back when your parents were about your age — do you think people today generally have more to worry about, or that there's not much difference? (Roper/Minnesota, 1963)

More Today	Less Today	No Difference	Don't Know/No Answer
68%	8%	20%	4%

The same sort of result comes from a 1971 study by the Institute of Social Research:

Q: Are things getting better in this country (USA)?

Better	Worse	About the Same
17%	36%	47%

This, of course, stems from 1971 — before Watergate, before the recent spate of “shortages” (gasoline, heating fuel, sugar, toilet paper, etc.) and before the period of major inflation and the whole complex of our recent discontents.

Such data indicate a clear result on the question: Does progress enhance happiness? When we approach the issue in this way, in terms of people's perceptions, the answer is emphatically negative. Half the people or more apparently think that the current hedonic quality of people's lives bears ill comparison with earlier stages of the “march of progress.”

It is of interest to view such findings in the light of more detailed questionnaire studies, such as the following:

Do you think the human race is getting better or worse from the standpoint of health? knowledge? inner happiness? peace of mind? (AIPO, 1949)

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	Better	Worse	No Difference	No Opinion
Health	73%	18%	6%	3%
Knowledge	82	7	7	4
Inner Happiness	21	51	18	10
Peace of Mind	17	62	11	10
Peace of Mind by Education				
College	16	74	6	4
High School	18	63	11	8
Grade School	17	57	13	13

NOTE: For comparable and supporting data see Cantril and Strunk, Public Opinion: 1935-1946, p. 280

The contrast is a striking one here. Substantial majorities envisage a course of substantial improvement in terms of material and intellectual attainments. Nevertheless sizable pluralities take the view that our situation is deteriorating as regards "inner happiness" or "peace of mind," and — interestingly enough — the more highly educated the group being sampled, the more emphatic this sentiment becomes. The upshot of such questionnaires indicates that in fact a substantial majority of people incline to the view that there is a negative correlation between progress and happiness.⁴

Such evidence, to be sure, relates to the subjective impression of the people interviewed.⁵ But there are also relevant data of a more objective kind that indicate a failure of Americans to achieve a higher plateau of personal happiness in the wake of substantial progress in the area of social welfare. For one thing, the suicide rate per one hundred thousand population per annum has hovered with remarkable stability in the eleven-plus-or-minus-one-half region ever since World War II. Moreover, since 1945 a steadily increasing number of Americans are being admitted to mental hospitals, and, on the average, are spending an increasingly long stay there. And statistical indicators of this sort are readily matched by a vast body of other, more subjective psychiatric data. Moreover, even political observers, who certainly have their hand on the nation's pulse, have begun to be concerned over our inability to translate augmented personal affluence into increases in happiness. Thus Richard Nixon in his first State of the Union message said: "Never has a nation seemed to have had more and enjoyed less." And in his recent book Rich Man, Poor Man⁶ Henry Miller, chief of the Population Division of the Bureau of the Census, observes that: "We seem to be getting richer and richer in the number of things we own and poorer in our ability to enjoy them."

6. The Preference for the Present

Now given such extensive — and continuing — indications that people's happiness is on the wane, it would seem clear that people would prefer the circumstances of the bygone era. In the face of a widespread consensus that Americans were happier a generation or so ago, it would seemingly follow that people would hanker after "the good old days." One would expect to find that many or most people would prefer to have lived in this bygone, happier time. When things are seen as going downhill, one would surely prefer the past.

So, indeed, it might well appear. But the actual fact is just the reverse of this expectation: the statistics actually obtained in the field indicate that this expectation is altogether wrong.

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Do you wish you were living in those days (thirty years ago) rather than now? (AIPO, 1939)

Yes	No	No Opinion
30%	61%	9%

Do you think you would have rather lived during the horse-and-buggy days instead of now? (Roper, 1939)

Yes	No	No Opinion
25%	70%	5%

If you had the choice, would you have preferred to live in the "good old days" rather than the present period? (Roper/Minnesota, 1956)

Yes	No	No Opinion
15%	57%	29%

Here we have something of a paradox. On the one hand, people incline to believe that "things are going to the dogs;" on the other hand, people evince no real preference for "the good old days." And these findings are altogether typical of findings obtained over the past generation. Invariably, Americans reject the would-rather-have-lived-then-than-now option by a ratio of better than two to one.

7. Explaining the Paradox: The Role of the Subjective

How can this paradox be explained?

This is an issue one can only approach on the basis of conjecture and guesswork. But a pretty plausible account can be developed along these lines. The key lies in the consideration that satisfaction and happiness are subjective issues that turn on subjective factors.

The desired account can, it would seem, be given in something like the following terms: an individual's assessment of his happiness is a matter of his personal and idiosyncratic perception of the extent to which the conditions and circumstances of his life meet his needs and aspirations. And here we enter the area of "felt sufficiency" and "felt insufficiency." A person can quite meaningfully say, "I realize full well that, by prevailing standards, I have no good reason to be happy and satisfied with my existing circumstances, but all the same I am perfectly happy and quite contented." Or, on the other hand, he may conceivably (and perhaps more plausibly) say, "I know full well that I have every reason for being happy, but all the same I am extremely discontented and dissatisfied." We are dealing with strictly personal evaluations.

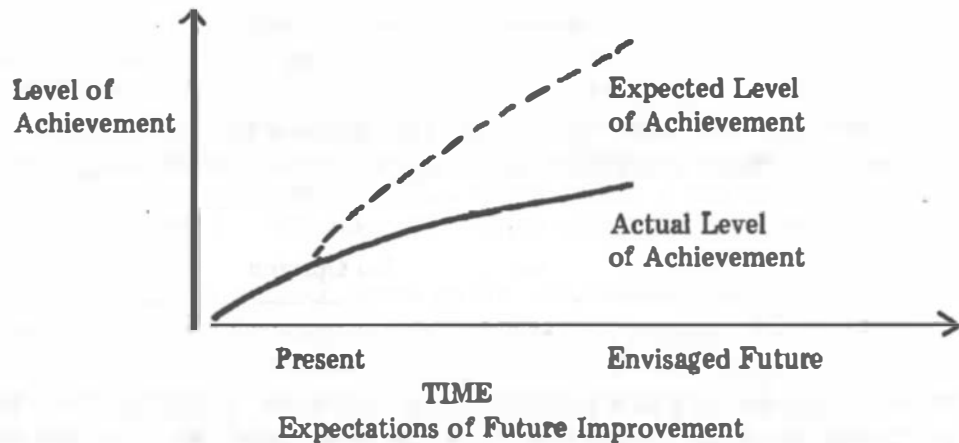
In this context one is carried back to the old proportion from the school of Epicurus in antiquity:⁷

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$$\text{degree of satisfaction} = \frac{\text{attainment}}{\text{expectation}}$$

The man whose personal vision of happiness calls for yachts and polo ponies will be a malcontent in circumstances many of us would regard as idyllic. He who asks but little may be blissful in humble circumstances. It is all a matter of how high one reaches in terms of one's expectations and aspirations.⁸

The issue of expectations deserves a closer look. People's expectations tend to be geared to the record of their past experience. And when improvements are subject to the limits of finitude which generally prevail in human affairs, a situation of the following results:



The phenomenon of deceleration is obvious here. We have here the usual configuration of an S-shaped, sigmoid curve of development. Now when we extrapolate past experience in a situation like this, we see that the result is inevitably such that our expectations outstrip our attainments. The inescapable result is one of dissatisfaction. Sure — things get “better” — objectively speaking — but they don't get better fast enough to meet our subjective expectations.

On this basis, it becomes possible to provide a readily intelligible account for the — on first view, startling — phenomenon of increasing discontent in the present era of improving personal prosperity and increasing public care for private welfare. What we are facing is an escalation of expectations, a raising of the levels of expectations with correspondingly increased aspirations in the demands that people make upon the circumstances and conditions of their lives. With respect to the requisites of happiness, we are in the midst of a “revolution of rising expectations,” a revolution that not only affects the man at the bottom, but operates throughout, to the very “top of the heap.” And — as our Epicurean proportion shows, when increased expectations outstrip actual attainments — even significantly growing attainments — the result is a net decrease in satisfaction.⁹

The paradox mooted above is readily resolved on the basis of these considerations. In the past people were happier because their achievements lived up to — or exceeded — their expectations. With us — even though our level of achievement is higher (and therefore our demands greater) — a lower degree of satisfaction is bound to result because of a greater shortfall from expectations. But nevertheless we will not want to exchange our circumstances for the subjectively happier (but objectively less well off) circumstances of the past. It would seem that Americans

have come to require more of life to achieve a given level of happiness. Their view seems to be: "To be sure, given what little people asked of life in those 'simpler' days, what they had was quite sufficient to render them happy, or at any rate happier than we are today — we who have more than they. But of course we, with our present expectations, would not be very happy in their shoes."¹⁰

8. The Sources of Discontent

Other people can tell a person if he is healthy or in good financial shape more reliably than that person himself. His physician may well be better informed than he on the former score, his tax-consultant on the latter. But no one else can tell more accurately whether or not a person is happy. On this issue of his happiness and its ramifications every man is his own prime authority. Such self-appraisals of happiness are very useful barometers and the psychologist designer of questionnaires has often paid attention to this issue. This tends to produce rather interesting findings, particularly as regards the sources of our discontents, or at any rate their perceived sources.

Here again, questionnaire studies provide a useful basis. Consider, for example, the following data:

Happiness and Worryment

Self-classification in Point of Happiness	Percentage of Respondents Who Worry "Often" About:						
	Health	Growing Old	Money	Getting Ahead	Work	Marriage	Children
Very Happy	16%	5%	39%	35%	48%	12%	38%
Pretty Happy	22	8	47	34	51	9	36
Not too Happy	42	28	58	37	54	14	31

SOURCE: Figures are derived from data given in N.M. Bradburn and D. Caplowitz, Reports on Happiness (Chicago, 1965), p. 55, table 2.27.

It is clear that the prime factors that operate to separate the happy from the unhappy are health and aging and money (which is closely correlated with these, given the decline of economic mobility that comes with old age).

Indeed, the factor of aging is an especially prominent consideration :

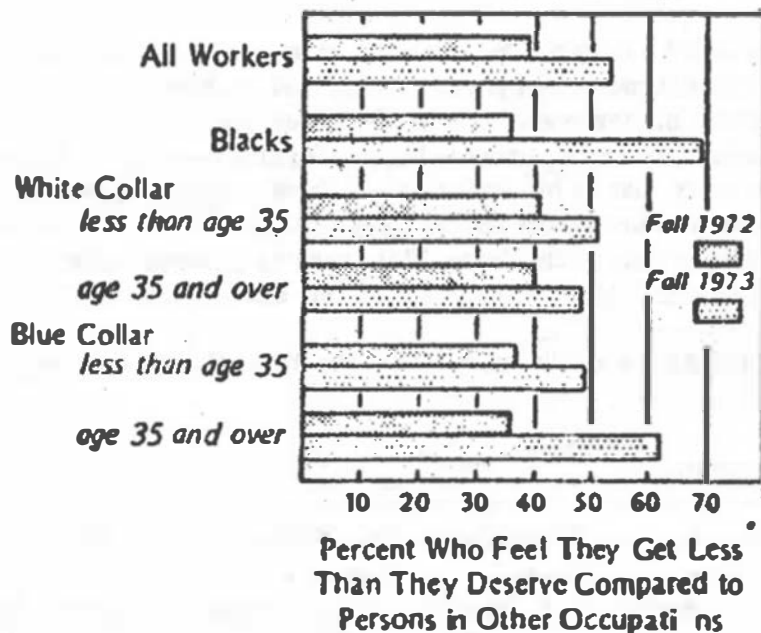
Self-appraisals of Happiness

Age Category	Percentage of Respondents Classifying Themselves As		
	Very Happy	Pretty Happy	Not Too Happy
Under 30	30%	58%	11%
30-39	24	66	10
40-49	25	62	13
50-59	23	59	18
60-69	21	54	24
70 and over	18	52	30

SOURCE: Bradburn and Caplowitz, Reports on Happiness, p. 9, table 2.1

Another important factor bearing on happiness has to do with comparisons with others, about keeping up with the Joneses next door.¹¹ The following data are interesting in this connection.

Workers' Growing Feeling of Inequity



SOURCE: University of Michigan Institute for Social Research: ISR Newsletter, vol. 2 (Summer, 1974), p.2.

Again, a consideration of work-satisfaction is illuminating in this regard — a mid-1970's HEW survey on Work in America reports as follows:¹²

TABLE
 Percentages in Occupational Groups Who Would Choose Similiar Work Again

Professional and White-Collar Occupations	Percent	Working-class Occupations	Percent
Urban university professors	93	Skilled printers	52
Mathematicians	91	Paper workers	42
Physicists	89	Skilled autoworkers	41
Biologists	89	Skilled steelworkers	41
Chemists	86	Textile workers	31
Lawyers	83	Blue-collar workers, cross-section	24
Journalists (Washington correspondents)	82	Unskilled steel workers	21
Church university professors	77	Unskilled autoworkers	16
White-collar workers, cross-section	43		

Only professionals in the socio-economic "prestige" occupations seem comparatively content with their allotted share of the world's work. It is particularly noteworthy that 55% of all workers feel that they do less well than persons in other occupations. One is reminded of the statistic that some 80% of all motorists regard themselves as better than average drivers.

The empirical facts do not bolster any optimistic view that scientific/technological progress is about to usher in the millenium. The main sources of happiness for people seems to be factors like:

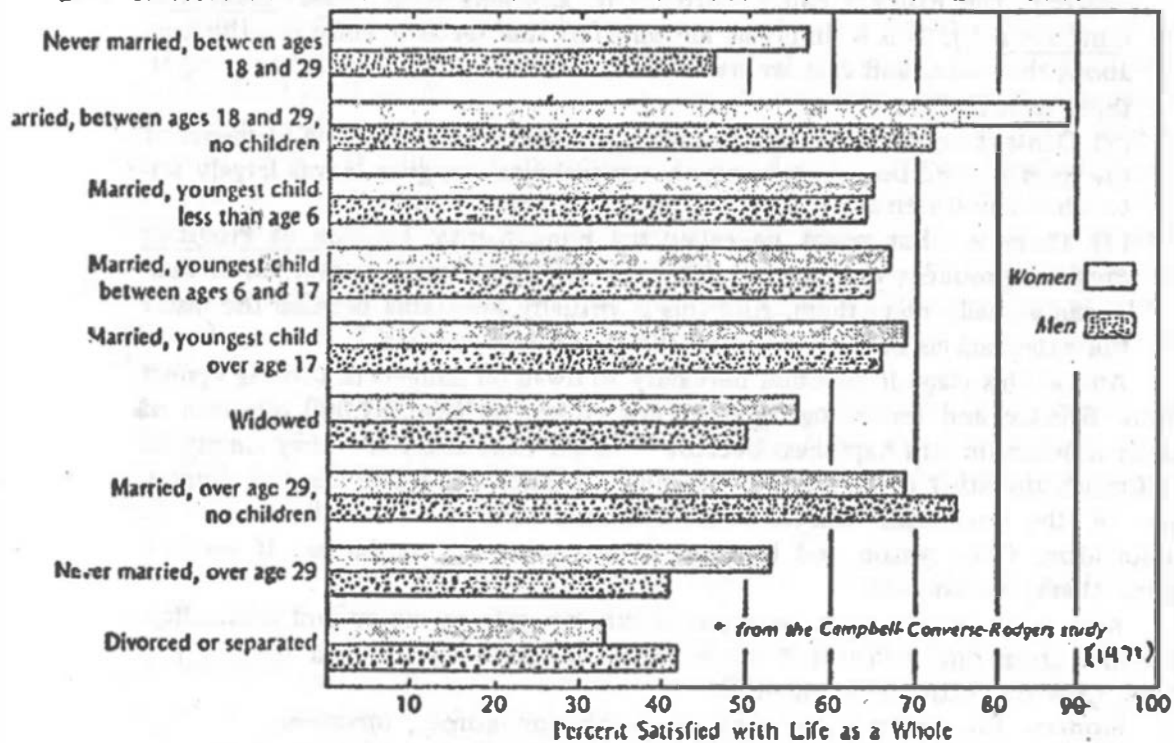
- aging and decline in health and vigor
- doing less well than one would like
- problems in human relationships (particularly in regard to family and children
- having less prestige than one would like

It is clear that factors like this do not readily lend themselves to manipulation by science and technology.

9. The Influence of the Life Cycle

It is particularly illuminating to correlate people's self-appraisal of satisfaction/ dissatisfaction with their place in point of age and family status:

LIFE SATISFACTION OF WOMEN AND MEN AT STAGES OF THE LIFE CYCLE *



SOURCE: University of Michigan Institute for Social Research: ISR Newsletter, vol. 2 (Summer, 1974), p. 4.

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Such a tabulation brings clearly to light where the "high risk factors" with regard to happiness-attainment are. The advice to offer would seemingly be:

- be female
- be young (under 29)
- be married
- be childless

These considerations show that much of human content/satisfaction/happiness lies at a level so deep that technological progress can, by comparison, scratch only the surface of life. The capacity of technical progress to contribute to our unhappiness (pollution, overcrowding, system breakdown) is thus much greater than its potential for contributing to our happiness, which seems to turn in large degree on factors like age and human (especially familial) relationships and social interactions that lie largely or wholly outside the manipulative range of science and technology.

10. Conclusion

A review of some of the main points at issue from our deliberations is now in order.

(1) Thinking about happiness and technological progress tends to be distorted by a deep-rooted tendency in men to think well of the past: "the good old days" (les bons vieux temps — every language has the phrase; nostalgia is universal). Cualquiera tiempo pasado fue mejor says the Spanish proverb. The Romans had a word for it: glorifiers of the past (laudatores temporis acti). This is simply an amusing fact that tends to color our thinking about this issue, and that we have to learn to discount for if we are going to think realistically.

(2) Contentment and satisfaction seem to depend on very basic elements of the human condition, factors which our technical progress leaves largely untouched and which actually do not admit of ready manipulation.

(3) There is what might be called the Fundamental Paradox of Progress: Progress produces dissatisfaction because it inflates expectations faster than it can actually meet them. And this is virtually inevitable because the faster the expectations actually are met, the faster they escalate.

And at this stage it becomes necessary to dwell on dangers of turning against reason. Science and technology just cannot deliver on the \$64,000 question of human satisfaction and happiness because — in the final analysis — they simply do not furnish the stuff of which real happiness is made. And here lies the slippery slope of the dangerous descent from anti-scientism to anti-intellectualism to irrationalism. Only reason and intelligence can solve our problems: If we turn against them, we are lost.

And many people seem prepared to turn away from reason and rationality. To quote from one well-selling recent book (significantly entitled Science is a Sacred Cow by Anthony Standen):¹³

Modern life in this country is highly unnatural. Machines, telephones, radios, vitamin pills, subways, cars, trains, airplanes, elevators, injections, television...all products of science, and all intended individually to help us, collectively harry us day and night and drive us to stomach ulcers or the psychiatric ward. (p. xyz).

Such a point of view marks a significant and increasingly prominent tendency of

thought. In the 1920's and 30's thoughtful and socially concerned people looked on science and technology as man's best hope and friend. Exactly the same sort of people nowadays unhesitatingly dismiss this view as hopelessly naive. Indeed science and technology are nowadays often seen as "the enemy" of all that is good and humane. Thus even so informed a thinker as the distinguished bacteriologist Rene Dubos in his recent book Reason Awake¹⁴ draws the contrast between the past, when man was threatened by natural forces he could not control, and the present, when our most potent fears are engendered by the malign effects — or side effects — of science and technology.

Surely, great dangers loom ahead along this road. Science, technology, and education in general nowadays present the nation with an enormous bill in terms of human and material resources. As long as people maintain the illusion that they are a royal road to human contentment, they will foot this bill willingly. But what if such disillusionment reaches serious proportions not just with respect to science, but the whole area of the life of the mind?

Science and technology will not — cannot — produce the millenium. And yet in a crowded world of very limited resources we cannot create an adequate setting for human life without them. To recognize that scientific rationality is not a sufficient condition for human happiness is one thing — and represents a true insight. However, to reject it as not being a necessary condition of human welfare would be a gross mistake. It makes no sense to join the cult of anti-reason in turning our backs on science and technology. The poor workman always blames his tools; but in this context the difficulties lie not with the tools but in our capacity to make intelligent use of them.

Also, perhaps most seriously, it is worth dwelling on the dangers of an inflation of expectations. Throughout the history of this country, each generation has addressed itself to life on the premiss that the conditions and circumstances of its children would be better than its own. Our faith in "progress" runs deep. What is life going to be like when this expectation is abandoned — or even reversed? Turning expectations around in a zero-growth world is no easy matter. It will be a very difficult thing to get people who have been taught that every day in every way things are getting better and better to accept the idea that the millenium is not around the corner. There is no need to elaborate upon the whole collage of grumbling, discontent, search for scapegoats, political extremism, and so on, that lies in this direction.

Now if the recent escalation of expectations in regard to the requisites of happiness were to continue unabated, then a tragic time of reckoning will come. But man is a creature that learns by experience, and a harsh curriculum of unpleasantly monitory experiences lies ahead.

* * *

Finally, let us look back to the initial question: Does scientific and technological progress promote human happiness?

I am afraid I have to say no. I do so not because I am a humanistic curmudgeon, but because of the hard facts we encounter when we go "into the field" and look at the reactions we get from people themselves.

Something akin to a principle of the conservation of negativity seems to be operative in human affairs. It is a cruel "fact of life" that the achievement of real progress need not be accompanied by any commensurate satisfaction. And there is nothing perverse about this: it is all very "natural." Man (as we know him in the West) tends to be a creature of discontent — be they divine or otherwise. The imminent goal once achieved, he simply raises his level of expectation and ~~presses~~

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onward to the next goal under the goad of renewed discontent.

One result of this tendency — a result that may properly be viewed as unfortunate — is what might be characterized as the phenomenon of hedonic discounting. This is best explained by an analogy. It is a familiar commonplace that the stock market primarily responds not to the present economic facts but to anticipations of the future. Making present allowance for foreseeable future economic improvements (or declines), the market has already discounted them by anticipation when they become a reality, and so underreacts to or even ignores major achievements when they occur. A parallel phenomenon operates in the context of foreseeable improvements in the conditions of human life: a similar undervaluation of realized achievements in the light of prior expectations. Having expected as much (or generally more), we simply refuse to value very real achievements at their own true worth. Once progress is achieved, it becomes discounted as regards its real contribution to happiness: by the time an achievement is made, we have already “raised our sights” in anticipation of its successors. The considerations in this discussion point to the ironic conclusion that advances have in the past — through their promotion of an escalation of expectations — been self-defeating from the standpoint of promoting happiness. The progress that has been made — real though it is — has nevertheless tended to bring in its wake a diminution rather than an increase in “the general happiness” of Americans.

Humanists are — or should be — lovers of reason, and one’s every rational bone cries out that, ideally speaking, people ought to be happier as their conditions of life improve. But recalcitrant circumstances of the real world indicate that they do not in fact become so. And seemingly for a deep-seated reason. As concerns happiness, progress sets a self-defeating cycle into action:

Improvement —————> Aroused Expectations —————> Disappointment

It seems that we must bring ourselves to realize — more in sorrow than anger — that it is a forlorn hope to expect technological progress to make a major contribution to human happiness, taken in its positive aspect.¹⁵

FOOTNOTES

¹ *Leibniz: Selections*, ed. by P.P. Wiener (New York, 1951), pp. 584-585.

² Quoted in J.B. Bury, *The Idea of Progress* (London, 1920).

³ For example, the Gallup people used “fairly happy” for the middle group while NORC and SRC used “pretty happy.”

⁴ The discussion of this section and its immediate successor draws on the author’s book *Welfare: The Social Issues in Philosophical Perspective* (Pittsburgh, 1972).

⁵ Of course, judgments of this sort — even about oneself — are notoriously problematic: It is hard enough to know whether one is happy or unhappy now, and still harder to compare the relative happiness of different times of one’s life: the utmost that can be said is that we are fairly happy so long as we are not distinctly aware of being miserable. — Samuel Butler, *The Way of All Flesh*.

⁶ New York: Thomas Y. Crowell, 1971.

⁷ A. Campbell, P.E. Converse, and W. Rodgers, *The Quality of American Life*, makes use of this Epicurean formula and offers detailed support for it. Some other empirical studies regarding this bit of speculative philosophy as to the relationship between expectation and (probable) achievement are: Arnold Thomsen: “Expectation in Relation to Achievement and Happiness,” *Journal of Abnormal Social Psychology*, vol. 38 (1943): pp. 58-73. Other related discussions and further references are given in James G. March and H. Simon,

- Organizations (New York: Wiley, 1958); Richard M. Cyert and James G. March, A Behavioral Theory of the Firm (Englewood Cliffs, N.J.: Prentice-Hall, 1963); T. Costello and S. Zalkin, Psychology in Administration (Englewood Cliffs, N.J.: Prentice-Hall, 1963); see pt. 2, "Needs, Motives, and Goals." It is worth noting that often one finds "aspiration" in place of "expectation" in the denominator of the basic proposition. The difference is important but subtle. The enterprising person may aspire to more than he expects to realize; the all-out optimist may expect to realize more than what he aspires to.
- 8 Rousseau's Emile works this line of thought extensively: "True happiness consists in decreasing the difference between our desires and our powers in establishing a perfect equilibrium between the power and the will.... (M)isery consists not in the lack of things, but in the needs which they inspire." (I owe this reference to Peter Hare.)
- 9 An important lesson lurks in this finding, to wit, that consideration of only the idiosyncratic happiness of a society's members is a poor measure of its attainments in the area of social welfare. It would only be a good measure in a society whose expectations held fairly constant or, if not that, at least developed in a "realistic" manner, that is, in a gradualistic pattern that did not automatically leap beyond increasing attainments.
- 10 For an interesting discussion of cognate issues see Philip Brickman and Donald T. Campbell, "Hedonic Relativism and Planning the Good Society," in M.H. Appley (ed.) Adaptation Level Theory (New York and London, 1971), pp. 287-302. One of the interesting points of this discussion is its conclusion that "there may be no way to permanently increase the total of one's pleasure except by getting off the hedonic treadmill entirely" (p. 300).
- 11 For an interesting discussion of some relevant issues see Philip Brickman and R.J. Bulman, "Pleasure and Pain in Social Comparison" in J.M. Sols and R.C. Miller (eds.), Social Comparison Processes (Washington, 1977), pp. 149-185.
- 12 From Joseph F. Coates, "Technological Change and Future Growth: Ideas and Opportunities," Technological Forecasting and Social Change, vol. 11 (1977), pp. 49-74 (see p. 54).
- 13 A good deal of recent antiscientism is surveyed in Bernard Dixon, What is Science For? (London, 1973; reprinted as a Pelican Book in 1976.)
- 14 New York, Columbia University Press, 1970.
- 15 A Phi Beta Kappa Lecture delivered at the University of Pittsburgh on 6 December 1977.