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HEALTH, ECONOMIC STRUCTURE AND SOCIAL INDICATORS

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ABSTRACT

The way in which economic development transforms the material basis of human social interaction and the widespread belief that the advanced industrial countries suffer from some kind of "social malaise" make it increasingly important to develop good indicators of the hitherto unmeasurable aspects of the quality of life.

The paper discusses the possibility of identifying aspects of a population's health which could be used as indicators of otherwise unmeasurable subjective aspects of the quality of life.

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SUMMARY

This paper discusses the possibility of identifying aspects of a population's health which could be used as indicators of otherwise unmeasurable subjective aspects of the quality of life.

Attempts to develop social indicators of the quality of life have come unstuck because of the essentially subjective character of what is being measured. As we gain more knowledge of the factors affecting health, and particularly of psychosocial factors, the possibility arises of using aspects of health as indicators of particular aspects of the quality of life.

Whether health can be used in this way depends on whether it is possible to find aspects of health which can be shown to be sensitive to the particular subjective elements of the quality of life which it is desired to measure. In recent years epidemiological research has made considerable progress towards establishing both the importance of stress as a risk factor in disease and the protective effects of good social relations. In a sense it has started to provide objective evidence of our social needs. From the point of view of social indicators, the doubt is not so much whether health is influenced by the subjective quality of life as whether it is possible to identify aspects of health determined uniquely by subjective factors as distinct from the numerous other influences on health.

The way in which economic development transforms the material basis of human social interaction and the widespread belief that the advanced industrial countries suffer from some kind of "social malaise" make it increasingly important to develop good indicators of the hitherto unmeasurable aspects of the quality of life.

As well as discussing these problems, the paper also mentions various trends in health which, if we understood what lay behind

them, may well tell us more about the way the social structure affects the quality of life for different sections of the population. Examples include the widening gap in life expectancy between the sexes, social class differences in health and regional variations.

This paper is concerned with two possible areas of research, both involving the relationship between health and the socioeconomic structures of industrial societies. It is less concerned with the way changes in health feed back to affect the economy and society than with research opportunities being opened up by our growing knowledge of the socioeconomic and psychosocial causes of ill-health. In a nutshell, the twin kernels of this paper are 1.) the possibility of identifying dimensions of health which serve as social indicators of important but otherwise unmeasurable aspects of our experience of life, and 2.) the complementary process of learning more about the determinants of health at the level of the economic and social structure of society. Basically I am interested in the influences of social and economic factors on health, and then, as those relationships are clarified, in whether we can infer things about the nature of society from our knowledge of health.

First a few words about what seems to me to be the central problem facing previous attempts to develop indicators of the quality of life. The interest in developing social indicators which appeared at the end of the 1960s or in the early '70s, clearly reflected a growing scepticism at treating gross national product per capita as synonymous with the quality of life. Not only was it recognised that some aspects of economic growth could not be treated as net additions

to welfare, but there were deeper misgivings that in some way economic growth incurred hidden social costs which threatened to make it counterproductive. The edifice of modern economics began to doubt its foundations. In 1972 Nordhaus and Tobin published their influential paper titled "Is Growth Obsolete?" In it they proposed measures of economic welfare consisting of adjustments to GNP intended to make it a more accurate relfection of welfare.(1) They concluded, comfortingly, that their adjustments to GNP still left a substantial increase in GNP consistent with increased welfare. But in his discussion of their paper, R.C.O. Matthews pointed out that the resulting "measure of economic welfare" remained a measure of consumption rather than of welfare itself.(1) This is important because a crucial issue is of course to know what welfare is appart from consumption and how its other components may be affected by the process of economic growth. Matthews quoted from an earlier draft of Nordaus and Tobin's paper in which they said "We can't go beyond a certain point, and this is the point where economic welfare becomes identified with subjective well-being or happiness or contentment. In measuring these ultimates and their correlation with things economic, we pass the baton to the philosophers and the psychologists." i.e. we throw in the sponge.

The O.E.C.D. social indicators programme took a completely different approach. It was set up after a Council of Ministers declaration in 1970 which recognised that "growth is not an end in itself, but rather an instrument for creating better conditions of life" and said that "increased attention must be given to the

qualitative aspects of growth".(2) These flashes of the obvious remind us of the way economic growth was seen during the '50s and '60s. Although the programme recognised that "the quality of life resides ultimately in the individual's experience of life" and indeed produced a report entitled "Subjective Elements of Well-Being",(3) they inevitably ended up with a list of measures of the external world such as standards of education, employment, health, housing, the availability of goods and services etc.. They were of course aware "that a given physical and economic environment (does not) exercise a specific influence upon the individual independently of the social context."(3, p.33) As one author put it, "that economic and other objective measures are used as surrogates for direct measures of experience in no way denies that it is through experience that people come to know the quality of their world".(3, p.19) In other words, "we know we are measuring the wrong thing, but what else can we do?"

Their attempts to measure essentially subjective factors seem to miss the mark by a particularly wide margin. "Social attachment" was to be measured - presumably following Durkheim - by the suicide rate, and the "quality of working life" by hours worked, travel time to work, length of holiday, unsocial hours, distribution of earnings, fatal occupational injuries, and environmental nuisances at work such as noise and pollution.(4) More amusingly, a paper entitled "An index of the quality of bureaucratic encounters", which expressed concern that contacts between members of the public and official authorities were increasing at a time when deference to authority seemed to be decreasing, said "It should not be difficult to count the number of

times the ordinary citizen encounters a policeman, a city hall clerk, a welfare worker, an income tax agent...and he should be able to report what the nature of these contacts was..." - presumably in confidence to another bureaucrat. (3, p.16-17) The much more important ways in which public and personal life is regulated through the indirect exercise of bureaucratic power were ignored.

In spite of the difficulties, the problem of developing indicators of the quality of life remains an important one. Crucial dimensions of the quality of life receive little attention because they appear to be subjective, abstract, and unmeasurable. One of the most fundamental aspects of the quality of life and of our sense of well-being is inevitably the quality of human social relations. The processes of economic and technological development continuously transform the nature of human relations, changing the way they are mediated and the standpoints from which people come together - whether conceived of in terms of the broad social structure or the circumstances of personal life. No doubt in some periods the course of economic development has had a greater impact on the quality of life through its effect on social relations than through its effect on incomes. We have extraordinarily little understanding of the interaction between material and social life, and the way in which the changing patterns of material or institutional life affect the nature of social relations.

Although problematic aspects of the subjective social life of a society may produce concrete symptoms which command attention in forms

varying perhaps from steet crime to psychological depression or from child abuse to truanting, without clear concepts of what lies behind them, official responses to them are likely to be symptomatic in their turn. The "social malaise" or whatever lies below the surface remains unknown because we can get no objective handle on it. It is left as the province of impressionistic sketches and private prejudices. As Patrick Moynihan once said "It is a good general rule that governments only begin to do something about problems when they learn to measure them". (As quoted in 3, p.18) One wonders whether there is indeed a progressive breakdown of social relations; are they for instance being converted to asocial economic relations, or is this another area where our impressions belie the truth as Fucault argued was the case with historical trends in sexual repression? It is an area where our ignorance is matched only by the extent of popular unease.

Whether health has anything to offer as a social indicator depends on the way it is affected by different aspects of the quality of life. Observations at the crudest level make it clear that health is largely determined by features of a society's social and economic structure. McKeown and Lowe have shown that improvements in health in England and Wales since the middle of last century owe very much more to changes in the standard of living than to advances in medical science.(5) Similarly, Harvey Brenner's time series analyses have demonstrated that national death rates are closely related, if not to unemployment, then to short-term fluctuations in economic activity.(6) Similarly, the Black report on social class differences in health has drawn attention to the relationship between cross-sectional

inequalities in economic and social life and the resulting inequalities in health within society.(7) Partly because of the importance of socioeconomic factors or the 'standard of living', it has been hard to find health outcome measures among populations which clearly reflect the benefits of the bulk of modern medical services in developed societies.(8, 9, 10)

As we get to know more about the relationship between health and different aspects of the standard of living or quality of life, that W.H.O. should have added "complete mental and social well-being" to the "absence of disease" in their definition of health seems increasingly superfluous. Mental and social wellbeing are now established as necessary (but not sufficient) conditions for the absence of disease.

It is this increasingly clearly demonstrated dependence of health on psychological, social and physical dimensions of wellbeing which makes it possible to suggest its use as a social indicator. But rather than thinking of health as a single monolithic entity to be used as an overall indicator of the 'quality of life' or whatever, we should think in terms of breaking it down into a number of different dimensions each affected by (and so indicative of) a different aspect of social and economic life. The point is not to suggest that health is the ultimate good and impose it unilaterally as the measure of the value of all other change. It is instead to identify components of health which can be shown independently to reflect aspects of life which we are interested in but often find difficult to measure. At

this early stage we will sometimes want to know what an observed health pattern tells us about the nature of social and economic life, while at others we will want to know whether our knowledge of the causes of disease would allow us to devise indicators of a problematic area of the quality of life. There is a whole host of important questions which have not so far recieved much serious attention from this angle. For instance, what factors lie behind the widening sex-differential in life expectancy? What does the lack of any reduction in the size of class differences in death rates tell us about the trends in socioeconomic inequalities in society? Do the research findings on the health implications of stress and the value of supportive social networks enable us to develop health indicators of levels of stress and the quality of social relations in different societies? Do the marked differences in health between single, married and widowed people testify only to the material advantages of family life, or to the need for a Laschian psychosocial "haven" from his supposedly "heartless world" of public life?

Epidemiological research has of course not yet advanced far enough to allow us to pick up unproblematic, ready-made indicators of different aspects of the quality of life. For some time the task of identifying dimensions of health which would serve as social indicators would be inseparable from research on the determinants of health at the macro level of a society's social and economic structure. But health research at this level seems increasingly urgent in its own right. Interest in the broader socioeconomic determinants of health has been growing rapidly under the impetus of

such things as: the current concern at the social inequalities in health, the comparatively recent recognition of the overwhelming importance to health of socioeconomic factors relative to medical care, a growing worry at the health implications of economic policy - particularly in connection with unemployment and poverty, and lastly as a result of a desire to see the development of a preventive element in public policy. Compared to the work which has been done on personal variables at the individual level, epidemiological research has not yet given broader structural issues the attention they deserve. Any work on the identification and development of dimensions of health which would serve as social indicators should then go hand in hand with research on the causes of ill-health at the macro level. In contrast to the work on smoking, diet, stress, exercise, alcohol etc., there is a serious paucity of research attempting to relate a variety of economic and social indicators to components of health on regional, national and time-series bases.

An important part of my own initial interest in the use of dimensions of health as social indicators springs from the tendency for epidemiological studies to provide objective confirmation of the subjective importance of psychosocial factors. The possibility of hard indicators of something as subtle and yet as important as subjective well-being is attractive. Important aspects of our social and emotional lives often recieve little conscious recognition. Social psychologists tell us that it is mistaken to attach too much meaning to people's transient ideological expressions of their needs and desires, i.e. to what they say. But are physical indicators any

more reliable? Most people recognise that minor physical symptoms (such as stomach upsets, sleeplessness or constipation) often provide us with the clearest indications of the emotional stress they are under. It is also well established that measures of the skin's electrical resistance provide more sensitive assessments of a person's experience of stress than verbal self-reports. But more relevant to us now is the fact that it took studies of weight gain and cognitive development in monkeys and human infants to bring about an 'official' recognition that something amounting to love is a necessary component of a baby's wellbeing. Before that, at least in medical circles, there was a tendency to regard babies has having physical rather than social needs. It now looks as if studies of health are providing the clearest and most objective indicators of adult social needs and the way in which they are, or are not, met within different forms of social organisation. Epidemiological research may soon provide us with the possibility of piecing together what would amount to an empirical definition of the essential social qualities of human relations. Though of course we all have our intuitions and subjective impressions of the desirable quality of the social fabric, lacking any unifying objectivisation these remain private and ineffective beside the economic forces transforming society.

The ultimate justification for using health as an indicator of subjective wellbeing would be if health was not merely a measurable substitute for subjective wellbeing which was conveniently - but nevertheless arbitrarily - imposed on it, but rather that health, or at least aspects of it, were partly determined directly by a person's

deep subjectivity. It would be necessary to show that the ability of psychosocial factors to contribute to physical disease hinged on the subjective meanings people ascribe to their situations. Although this sounds like deep water, there can be little doubt that this is the case. The mind is inevitably the mediator between for instance stressful life-events and their physical repercussions. It was not some physical toxicity of the exam papers which caused a decrease in students' secretion of immunoglobulin A shown in one study, any more than it was psychoactive vapours from the damp walls - like arsenic from old wall papers - which contributed to depression among women in Camberwell.(11, 12). All the mechanisms suggested to explain how stress and/or inadequate social support may causes heart disease, reduced immune responses and cause cancers seem to start with psychoneuroedocrine processes.(13, 14, 15) (That is to say with the products of different glands which are, like adrenaline, psychologically triggered and discharged directly into the blood stream.)

Unfortunately identifying dimensions of health indicative of any particular aspect of the quality of life would not simply be a matter of looking to see what diseases or causes of death are associated with that aspect. Most diseases are caused by a number of different factors, and most important risk factors are involved in the causation of a number of different diseases. However, the fact that epidemiological research findings have demonstrated that there are a number of important subjective factors which have a significant influence on health, means that these components are indeed there to

be teased out. Amongst the subjective factors I have in mind are of course such things as stress, (11, 15, 16, 17, 18, 19, 20) the protective effects of social affiliation (12, 20, 21, 22, 23, 24, 25, 26) and something related to a more general sense of fulfilment, satisfaction or overall happiness which several studies have suggested is closely associated with health. (This last category is still too inadequately researched to assume that it would serve as an independent dimension of health. However, the fact that studies have reported that "work satisfaction", "general happiness" or "life satisfaction" are better predictors of health and/or longevity than more traditional risk factors, implies at least that there is no incompatibility between the material conditions for health and the subjective quality of life.(27, 28, 29)

When reading studies on the subjective factors in health one cannot help being struck by the evidence they provide of the high costs incurred by forms of social organization which are incompatible with some of our human social needs. The importance for example of what is often called autonomy or control but is perhaps more accurately described as self-mediation, is shown in research in at least three different fields. It is shown in carefully controlled research on people's perception of pain - both in studies of the effects on outcome of patient's cognitive preparation for surgery (30) and in psychological experiments on the effects of "learned helplessness".(31) It is also shown in studies of differences in activity ratings, self-reported happiness and death rates among the elderly in old people's homes according to how much control they had

been given in the way the home was run and how much choice they felt they had in coming to the home initially. (31, p.178–9). Lastly, it is shown in studies of the psychosocial effects of the workplace on health. (19, 26, 28) In any given circumstances, the more people feel in command of their situation the less distress they seem to experience.

Numerous studies testify both to the importance and frequent inadequacy of social relations at all levels. At the most personal level, George Brown's finding of the importance of "confiding relationships" is well known.(12) Presumably this is part of the reason for the differences in death rates between married and single people and accounts for the finding that men who see their wives as 'loving' are only half as likely to develop symptoms of angina as other married men.(32) The importance of wider social affiliations and involvement outside the home is shown in studies of mortality in community groups.(22, 23) Membership (and particularly active participation) in religious organisations appears to be specially protective.(21, 24) Perhaps, as Henry has suggested, this is because as well as providing social contact, religious belief itself allows people to perceive themselves as "socially supported here and in the hereafter".(13) An indication of the harmful effects of the poor quality of social relations is also given by studies of character traits, a good part of which should probably be regarded as reflective of at least the perceived social environment. Such studies have reported that an "attitudinal set reflective of hostility to people in general", the "type A" personality and being either a "passive

receiver of repression" or an "active emitter of repression" are associated with cancer or heart disease.(20, 33)

At the moment we can only guess as to whether it would be possible to identify a component of health which was reliably indicative of subjective social influences. It would certainly involve special studies, following up epidemiological findings and testing out possible indicators against self-reports and other social indicators. It would require a willingness to look at health from every possible angle: searching for indicators by cause of death, by age distribution of deaths, by proportional mortality at different ages and so on. Sometimes the possible indicators would be derived from theory and at others they would be picked out by techniques such as factor or discriminant analysis.

Given the general model that social support is protective against the effects of stressful life-events, one might make a start by looking at variations in the strength of the well known tendency of widows and widowers to die within six months of their spouses in different types of community.(34, 35) In what societies is the quality of social support good enough to weaken this effect? Interesting insights might also come from looking at the social correlates of the differences in mortality rates between married and single people which show up almost equally clearly whether one compares married people with unmarried, widowed or divorced.(36) They are larger for men than for women, but in both sexes in the younger age groups single people's death rates are double those for the

married. It appears that only a small part of the difference is a result of marriage selecting the healthy.(37, 38) While several environmental influences may be at work, it seems likely that psychosocial factors are among the most important and probably reflect the inadequacy of the social contacts and support available to single people.

But when looking at the possible uses of dimensions of health as social indicators there is of course no need to confine ones attention to subjective aspects of the quality of life. The relationship between health and the socioeconomic structure is full of intriguing and pressing problems. An interesting one which has received very little attention is the widening of sex differences in life expectancy which has been going on almost continuously for at least the last 50 years in this country. (36) Since 1911 life expectancy for 60-year old women has increased by three years more than it has for men of the same age. This (coupled with the failure of women to marry progressively younger men) has led to perhaps as much as a doubling in the proportion of elderly women who are single and so likely to be alone. The trend is not confined to England and Wales. Between 1961 and 1972 the sex difference in life expectency widened in all eleven O.E.C.D. countries for which figures were available.(2) Male death rates in six of those countries actually increased while female rates continued to fall. In terms of the disease-specific approach favoured by medical science, no simple explanation is possible. Differences in death rates have widened from many different causes and in all age groups after the first year of life.(36, 39) It has been suggested

that the differential has more to do with the masculine gender role than with any biological inferiority: differences in smoking appart certainly it is a trend which invites the kind of holistic explanation found more often in the social sciences than in medicine.(40)

Social class differences in health are similarly broadly based with respect to age and cause of death. Once again we could explore the structural reasons for these inequalties in health at the same time as exploring their use as a measure, or summation, of the overall inequalities in the quality of life. While there are alternative measures of particular facets of inequality, they cannot be added together to give an overall picture. Inequalities in income cannot for instance be added to inequalities in education or status. They also suffer from the fact that monetary income has different implications for the standard of living in different contexts - say between rural and urban environments. However, in Britain there have been very few attempts to relate class differences in mortality to general aspects of social or economic inquality.

Another area in which a contribution from the social sciences might prove particularly useful would be in the examination of regional differences in health. Like class differences in health, the regional inequalities in the U.K. have shown little indication of diminishimg in the post-war period.(41) A study of regional differences in mortality rates in Western Europe found sharp national boundary divisions in mortality experience, suggesting again perhaps how closely health is tied to the national economy.(42) The same

study also noted that regional differences were greater for men than for women, and were most marked between urban areas with declining heavy industry where life expectancy was lowest, and rural areas were it was highest.

In this paper I have picked out a few dimensions of health which have attracted my attention and which would appear to benefit from the attention of social scientists. But I think a danger of looking at health is that it tends to assume an importance and urgency of its own. Improving health is not always more important than every other possible aim of health research. People are likely to regard the differences in the quality of their lives which the differences in health indicate, as something which matters in its own right. If a life is shorter because of its poor quality then it is not just its shortness that matters. The hope is that health variables may enable us to understand aspects of our society which we have previously failed to come to grips with, to see the human implications of historical patterns of development and to make informative comparisons with other societies. Perhaps it is too soon to take up some of the issues I have raised as practical research topics. To assess the feasibility of producing useful results in any field clearly needs a great deal more preliminary work.

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