

## SOCIAL INDICATORS—SOME CRITICAL COMMENTS \*

BY

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### ABSTRACT

*The transfer of social information and knowledge from the developed to the developing world is a complex problem. Various implications of this problem for policy in the developing countries are discussed taking 'social indicator movement' as an example. This paper argues that social indicators, as well as other types of social information, have utility and can play a valuable role in planning only if they are used with a proper appreciation of their true nature and the social background in which they were originated.*

In this paper, I propose to make some broad ranging critical observations from the point of view of the 'developing countries' on what has recently come to be known as the 'social indicator movement'. As the concept of 'social indicators' itself and the 'movement' associated with its uses in theory, social research and social policy have evolved primarily in the context of advanced Western industrial societies, we will need to consider the meaning and significance of the social indicator movement for the 'developing countries' as an instance of the wider and more complex problem of the transfer of social information and knowledge from the developed to the developing world.

There are two main issues which warrant examination. One concerns the present state of the 'social indicator movement' in the developed world. This is intended to provide a critical overview of the social indicator concept as it is currently employed in the literature. Secondly, assuming that 'social indicators' are basically social statistics, an attempt will be made to examine the nature of official social statistics by considering the limitations surrounding the uses of official statistics in the theory and practice of social research as well as their applications in social policy development.

### I

Despite over two decades of extensive research relating to 'social indicators', there is surprisingly little agreement as to what is meant by the term and, consequently, we observe that there is no consistent usage of the term in the literature. To understand some of the directions of thinking apparent in the current usage of the term 'social indicators', it is instructive to briefly look at the origins of the concept and the connected movement that has grown around it in recent years.

Initially, the social indicator concept emerged as a reaction to the overemphasis on economic indices (i.e. through such concepts as gross national product, GNP) in measuring a country's overall performance and achievement, especially of social

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development and wellbeing. This direction of thinking was in many ways associated with the strategy of integrated economic and social development which characterized the development decade of the 1960s and represented an attempt to specify indicators of 'socio-economic wellbeing'—the quality of life, as it soon became known in development planning circles. Underlying all this, or, at least, significantly related to this enterprise, was the dissatisfaction voiced by many economists about the system of national accounts and, in particular, of the concept of the GNP as a measure of human welfare. It will be recalled that this interest in welfare economics dates back to the work of the British economist Pigou who argued that models of economic theory being evolved at that time could and should not ignore the concept of 'social costs' as a factor which could cause public welfare to differ from private welfare. In short, the emerging concepts of welfare economics generated an entirely different set of issues which were not readily handled by the concepts of orthodox economic theory in terms of cost-benefit analysis. Thus, the stage was set for developing a different socio-economic indicator, in particular, an alternative to the concept of GNP.

In considering the history of social indicator activities, it should be noted that, as far back as the early 1930s, the American sociologist, W. F. Ogburn, had argued for the establishment of a statistical series pertaining to topics of a social nature which would portray the social map of American society and enable long term predictions of evolving social trends. This was, in fact, the basis of the U.S. publication entitled *Recent Social Trends* in 1933 which was to be the forerunner of many such similar social trend reports in UK and the USA. This is what is best described as *social reporting* and in some quarters it is used synonymously with the term *social indicators*.

Carley (1980) quoting the authoritative classification of statistical series data, proposed by the Conference on European Statisticians in 1974 suggests that each of the following, except perhaps the first, have at one time or another been termed 'social indicators'. This hierarchical classification lists six items (Carley 1980:177).

1. Raw statistical series,
2. Key series—i.e. common sense attempts to pick out interesting series of statistics,
3. Comprehensive schemes of statistics,
4. Composite indices derived from combining individual series,
5. Synthetic representative series derived by multivariate techniques,
6. Predictive series which fit explicitly into formal social models.

According to UN definitions items 1-3 above are all denoted as 'social statistics' and varyingly employed as 'social indicators'. More specifically some authorities restrict the concept of social indicator only to statistics which involve some degree of summation or aggregation (e.g. categories 4-6 of the above classification). Following Carley, we could agree that items 2-6 of the above list by and large covers what is normally regarded as a 'social indicator'.

But, for the purposes of this paper, it will be more helpful, to adopt Carley's classification of four types of social indicator systems. He uses the notion of a 'social indicator system' because the term typically refers to a group of indicators organised around some part of the social system like health, education, housing, etc. This, incidentally, reflects the current trend towards using multi-indicator systems or sets rather than using just a few indicators. In brief, as these four types of social indicator systems probably present a good overview of the state of the art,

it would be valuable to describe each of these types of social indicators briefly bearing in mind that the classification presented is not mutually exclusive and represents a useful heuristic device for examining the utility of the concept in applied research and policy development.

### I. Social Indicator Systems or Sets Organised Programmatically

These refer to the fact that different programmes presented by agencies, especially in government, require indicators which provide for various information needs relating to policy analysis. These indicators are usually established around the institutional arrangements of a particular country such as housing, health services, law, transport, etc. and tend to be compiled as national social reports. These reports are compendiums of statistics (e.g. *Social Trends* in the UK and *Social Indicators* in USA) which provide detailed quantitative data relating to the practices of a particular agency and are highly pragmatic. Editors of these reports feel that they are presenting objective value free 'facts' for others to interpret. But, as we shall argue later, this assumption is questionable on several grounds. At this point all we need to mention is that the programmatic social indicator systems merely summarise statistical trends, and are in no way explanatory, especially in a cause-effect sense. What is more, their inevitable selective nature, makes them vulnerable to criticism for being implicitly normative. On occasions, programmatic social indicator systems have also been used for local area analysis, e.g. as in neighbourhood studies. This kind of area statistics have subsequently been used as a basis for developing social policy initiatives in obtaining social data for such policies as relating to affirmative action programmes in social deprived areas, etc. Whether these programmatic systems warrant the term 'social indicators' is a definitional issue which remains unresolved (see Land 1975; Bulmer 1979; and others who object to regarding these indices as 'social indicators').

### II. Development by Social Goal Areas

This alternative method for developing a set of social indicator systems requires one to identify broad social goals and specific subgoals in order to establish an indicator which is in some way related to the achievement of these stated or implied objectives. The difference with programmatic indicators lies in the presence of an explicit reference to goals and outcomes. It would seem that this method is the one being adopted by the DECD Social Indicator Research Programme. Characteristically, these refer to standards of achieved social wellbeing of individuals and not to "structural or institutional achievements". There is, therefore, no attempt to link changes in structure or institutions with changes in individual wellbeing.

A major shortcoming of this approach is that the selection of indicators reflects the constructors' own value judgements of the components of wellbeing in a given area. One argument used in justification of this approach is that the social goals are implicit in the existing programmes. There are several other variants (e.g. Liu 1976; Zapf 1977) of this goal-to-indicator strategy. They differ primarily on how they define the social goals i.e. in terms of consensus or operational measures.

### III. Social Indicator Systems which Pertain to Life Cycle Data

With these the indicators are developed by examining how an individual interacts with social institutions during his life cycle and what he achieves in terms of the norms established by society or in terms of personal growth. Consequently, these cut across different kinds of social programmes mentioned previously in the first type of indicators. Probably the best example of this type of indicator is the System of Social and Demographic Statistics (SSDS) evolved by the UN Statistical Office and based mainly on the work of the British economist, Richard Stone.

The SSDS adopts as its frame of reference the life cycle of the individual and endeavours to relate one part to another, (for example, *Learning Vs Earning* and their correlated social institutions as with schools in the learning phase to employers in the earning phase) by the study of 'stock and flows' of individuals or groups of individuals. A 'stock' is the state of an individual at a given point of time and 'flow' refers to changes in time. By this means we can portray changes in the structure and states of welfare of the population over time. These 'stocks and flows' are examined as a whole and are also broken down by sub-systems or distinct institutions like health, or education. The social indicators are developed within each such sub-system and pertain to quantitative constructs about an aspect of social life.

Many commentators have noted that SSDS as it exists at present is a highly complex and comprehensive system which is predicated on the existence of sophisticated procedures of data collection. In the absence of the latter, the system appears to have little practical value.

### IV. Social Indicator Systems Developed from a Theoretical Base

Basically, what is attempted here is that individual social indicators are evolved from some causal model which relates to the interrelationship between quantifiable social variables. The social indicators, therefore, are said to relate to this theoretical model of social phenomena and have utility in social forecasting and explaining social trends. These sophisticated attempts at creating a theoretically based system of social indicators are at a very early and rudimentary stage of their development. Therefore, it would be premature to examine them in any systematic way. However, they have some attractiveness for social analysis in that it moves the whole social indicator movement away from the lower levels of data measurement to theory construction via the development of social models comparable to macro economic models.

Reviewing this classification of four types of social indicators, Carley expresses a long term optimistic view that 'social indicators' especially of the causal model type, will be "a valuable methodological adjunct to all rational policy analysis techniques" (Carley 1980:194). At the same time, in the short term, he concludes very realistically that, despite theoretical limitations and imperfections of data, the programmatic approach represented by his first type of social indicator appears to have the greatest practical utility for governments in matters of choosing between social policy options and evolving criteria for allocating resources. A crucial point made by Carley and which deserves reiteration is that "value judgements are present in any delineation of social indicators" and that one of the main tasks of the policy analyst should be

to expose and demolish "the facade of statistical neutrality" which appears to reside in statements involving 'social indicators'.

Commenting on the way the social indicator movement has evolved Carley (1980) concludes that "social indicators are at the minimum and in every type of rational analysis, *statistics*" and that there is hardly any consensus beyond this. Interestingly, Professor Karmel<sup>1</sup> has also pointed out that by social indicator we generally mean no more than "statistical information arranged in time series." Hence, if social indicators are basically 'social statistics', it would be prudent, given the present state of knowledge, to analyse and examine social indicators as 'social statistics'.

## II

Following Hindess (1973) and others (e.g. Irvine *et al* 1979), I propose to argue that, all official statistics, and this includes social statistics, need to be understood and analysed as a product, or more accurately as a 'social product'. As such, they need to be examined first and foremost in terms of the conditions of their production, particularly in the light of the *instruments* of production. These conditions and instruments are basically of two sorts: technical and theoretical.

The 'technical instruments' relate to the techniques and procedures of data collection and deal primarily with issues pertaining to the reliability and validity of quantitative social data. Here the problem is one primarily of the quality of the data as regards its accuracy and precision and we now have ready at hand checks and safeguards for minimizing, if not the total elimination, of error in methods of social measurement. These 'how to do it' procedures for obtaining reliable data are well discussed in methodology texts and manuals of data collection put out by various research agencies and institutes (e.g. the UN Statistical Office, the Survey Research Centre, University of Michigan, etc.).

Of special relevance in this regard to practitioners from the developing countries is excellent monograph entitled "*Data Collection in Developing Countries*" (Casley & Lury 1982). In this study, these authors review techniques of social data collection ranging from the case study to census data but emphasises the 'sample survey' which they somewhat dramatically refer to as "a major intellectual achievement of the century". The point to be made here is that from the vantage point of research methodology we are in a position to refine and perfect our technical instruments and for this reason the imperfections of data arising on these grounds are identifiable even if they cannot always be controlled. While we know a great deal about these 'technical instruments' of data production and their attendant limitations such that we know in advance that there are inherent restrictions on data collected via imperfect instruments, we are relatively more ignorant and less informed about the constraints imposed on social data because of the nature of the 'theoretical instruments'. These latter relate to the system of concepts and constructs which govern the assignment of obtained instances of cases to the categories explicit or implicit in any system of social data collection. In brief, the quantitative data obtained have to be understood not only in terms of their standards of technical production but also according to the nature of the conceptual or theoretical systems which are always either explicit or implicit in the procedures of data collection.

<sup>1</sup> See Prof. Karmel: *Indicators and Policy—Trends and issues in Education and Employment*. Unpublished paper presented at the Conference in Social Indicators held at the University of NSW, Australia in May 1982.

Hindess (1975) explains with a neat illustration drawn from Thorner's critique of the *Indian Agrarian Census of 1951* the manner in which all social data are constrained by the conceptual system that lies buried in any method of data gathering. Without going into the details of Hindess' example, to quote him, the main point being made is that "the census categories adopted in this census treat as capitalist an agrarian system in which capitalist production relations play a subordinate role" and as a consequence it exaggerates the proportion of owner-cultivators and underestimates the proportion of rent receivers and cultivating labourers. The nett effect of this conceptual (not technical) error in the Indian context is that the census categories are specified only in commodity terms such that the more significant non-commodity elements of agricultural production are neglected or totally ignored. What this reveals is that in any system of data collection, the choice of categories is a product of *theory* which is either explicitly stated or as is more often the case, implicit and lies concealed within the structure of the categories themselves.

From this these critics go on to argue with considerable justification that census figures, as reported, must always be regarded as a product of theory as well as of techniques. The proposition being advanced is that categories and their theoretical elaboration constitute an instrument for the production of knowledge. Thus, reported census data need to be viewed as the product of:

- (a) Observed events, i.e. what is observed and this is partly dependent on one's purposes.
- (b) Ways in which these events are observed and recorded, i.e. technical and conceptual instruments, and
- (c) The processing of observer reports (this may be regarded as an element of (b) but given its importance it probably warrants consideration as an independent element).

One could illustrate the way in which these several elements pertaining to the production of social data have a vital bearing on a question such as the measurement of inequality via income data. As income itself is a variable concept it is not readily apparent what is to be observed. The income concept which is employed in a particular instance will be governed by one's purposes. Hence, the 'income data' collected under one purpose e.g. taxation or price indexing may not necessarily be suitable for another purpose such as that of determining family levels of living or assessment of equity considerations.

Secondly, we encounter a whole series of difficult and complex questions relating to the ways in which the observations are to be made of the concept of income. These are the well known technical issues of measurement which are typically found in studies of income distribution (see Scott 1981 for a good discussion) such as those pertaining to the nature of the income unit (household head, or family, etc.) or the question of how to give a monetary value to services in kind. Now it can be readily seen why the comparability of social data such as those relating to data on income distributions is so limited. Consequently, "the idea of a comparative rating of countries on any overall quantitative index of equality/inequality of income distributions is questionable" (Scott 1981:4). Herein lies the danger of misleading figures and deceptive numerical indices appearing as established facts and gaining an illegitimate aura of authenticity and sanctity as objective facts.

Clearly, we see that social measurement involves both technical and conceptual issues and what is important to note is that the latter precedes the former. Put differently, this appears to reiterate the Carnap type distinction between an observational and theoretical language in scientific inquiry. However, Hindess objects to this on the grounds that any system of observation is theory-based i.e. the view that theory is logically prior to observation. According to Hindess, this is the only way in which we can avoid the pitfalls of both positivism, and especially 'vulgar positivism' and the anti-positivism of the phenomenologists. For the 'vulgar' positivists, there is only one kind of data language—i.e. a valid observational language reducible to human experience and divorced entirely from any 'theory'. At the other end, there is the extreme subjectivism of phenomenologists like Cicourel, Douglas and others, who would deny the very possibility of any quantitative knowledge based on the methods of systematic data collection via technical instruments such as sample surveys and census. Without entering into the details of the argument between the supporters of Carnap and Hindess, I would advocate an intermediate viewpoint which on the one hand admits of the validity of the distinction but concedes that we need to be clear that there is a conceptual/theoretical language which is prior to an observational language. According to this view, any kind of social measurement not only presumes some theory underlying the choice of the categories of measurement but also needs to provide for a language whereby this theory is translated into a language of observation.

Applying the foregoing argument then to the present discussion, we would, therefore, maintain that 'social indicators' viewed as 'social statistics' need to be understood and interpreted only in the light of how they have been produced via an interplay of theory and quantitative observation. For this reason alone, we would insist that the tasks of constructing and using social indicators are, as in the case of other methods of social measurement, e.g. sample surveys, censuses, etc. are never reducible to purely technical issues of measurement.

To conclude, we note initially, given the uncertainty surrounding the meaning of the social indicator concept in the developed world, users of this concept and its methodology in the developing countries would be advised to exercise considerable caution and restraint in applying it either as a tool of policy analysis or policy development. Furthermore, we have endeavoured to show that the use of 'social indicators' is not simply a matter of the application of a technical instrument. The aura of objectivity and 'scientificity' surrounding the concept of social indicators is often deceptive particularly in that it is beset with value judgements at almost every point of their development as tools of analysis. All users of 'social indicators' whether they be in the developed or developing countries need to be constantly reminded of Martin Rein's (1976) perceptive observation that "it is sterile to pursue techniques of analysis divorced from issues of purpose.....". The 'issue of purpose' in other words, questions of the why and wherefore of development planning, the purposes for which social indicators are used will in the long run dictate what significance we attach to these concepts as tools of policy analysis and policy development. Therefore being neither theoretical nor value-free they must be understood only in the context of their production and usage. Social indicators have utility and can play a valuable role in planning only if they are used with circumspection and a proper appreciation of their true nature as statistical data bounded and constrained by the mode of their social production.

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