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**PRELIMINARIES ON A COMPARATIVE ANALYSIS
OF THE VARIOUS VIEWPOINTS ON
THE QUALITY OF LIFE**

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Geneva, September 1979

Johan Galtung

This paper is being circulated in a pre-publication form to elicit comments from readers and generate dialogue on the subject at this stage of the research.

I. INTRODUCTION

The present paper is an attempt at introducing a framework for a comparative analysis of the "quality of life" (QOL) problématique — i.e., of the conceptual, methodological, and operational aspects associated with this key issue of the contemporary debates focusing on societal development.

In the spirit of the uncanonical GPID approach to canonical research subjects, we started from the fact that the QOL problématique can be better understood and described not by soliloquizing scientifically on the subject but by trying to discover in the vast literature dedicated to the subject some monitorial alternative viewpoints and then simulating a dialogue among them. Thus, in our mind the QOL problématique is identical to the world-wide debate concerning the QOL problématique.

How can such a debate be designed?

We propose the following three-stage programme: First, to sketch out an initial generation and description of the alternative viewpoints (mainly, the contents of the present paper). Second, to circulate this paper for critical assessment and discussions in the GPID network and to obtain a list of different viewpoints on the QOL. Third, to organize a workshop (in 1980?), where different participants will be invited to assume and to play the roles of the different viewpoints and to further elaborate on the subject in a controversial manner. A minimal "field of consensus" and a minimal "list of priorities" are expected to be obtained as the output of this game-type workshop. The results can also be summarized in a volume containing the whole

"history" of this typical GPID approach.

Our present paper is an introduction to the proposed scheme.

Naturally, if such a three-step approach does not receive the backing of the GPID network, we hope this paper will still be interesting and considered as a critical overview of the QOL problématique.

II. INTRODUCING OURSELVES: OUR POINT OF VIEW ON THE QOL PROBLÉMATIQUE

The best method of reaching "objectivity" is to emphatically assume one's "subjectivity." Obviously, our map of the QOL problématique is very much influenced by our own ideological and methodological identity. We are an interdisciplinary team of Marxist researchers living in a socialist country of Eastern Europe, more precisely, a scientific team of committed Romanian Communists.

Thus, we will start by describing our own socialist approach to the QOL problématique.

In the framework of socialist thinking, the definition of the QOL is centred on man-society relationships — i.e., on the interrelations and interconditioning of the needs and aspirations of the individual and the concrete socio-economic context he belongs to.

Some official and assumed socialist points of view related to the subject are perhaps illuminating in this respect.

So, the QOL concept defines parameters, and qualitative and quantitative criteria of the socio-economic development and of human life in relation to:

- the type of social relations;
- the type of distribution of material values;
- the type of acquired spiritual value;
- the degree of concern with moral norms;
- the environmental conditions.

[Dictionar politic, 1975.]

The main conditioning is generated by the type of social relations.

In this respect, the general policy of the Romanian Communist Party of building up the multilaterally developed socialist society has set for its supreme goal to steadily raise the material and spiritual welfare of the whole people and achieve a higher degree of civilization for the Romanian society. The general Secretary of the Romanian Communist Party, Nicolae Ceaușescu specifies:

The revolutionary humanism conceives the affirmations and the plenary development of the human personality, not as an isolated item, but within society, as a whole promoting the rational and generous principle according to which personal happiness cannot be achieved by taking away the other people's right to happiness, but only within the general progress of the collectivity, of the nation, of mankind. [Nicolae Ceaușescu, Congress on Political Education and Socialist Culture, 1976.]

We must emphasize the contribution of the Romanian Communist Party to the theory of concept as well as its role in making it operational by taking into account the social factor and underlining the qualitative aspects in the process of planning socio-economic development.

V. Trebici (1976) defines QOL as a complex indicator including the living standard, and makes the distinction between the objective and the subjective character of the QOL components.

The living standard reflects a whole diversity of material needs; the specific difference between the two terms is in the area of human and social relations. "Welfare" is therefore defined as "all the needs which are met by the availability of material (individual or social) resources and all the needs whose satisfaction is defined by human relations or by the way a person relates to others or to society," and "happiness" as "the ensemble of subjective assessments of the person's opinion regarding the living conditions or his human and social relations."

Trebici considers that the objective component is described by the welfare concept whereas the subjective component is related to happiness.

His considerations are synthesized in table 1.

TABLE 1

	Welfare	Happiness
Living standard	<u>To have:</u> income housing work health education	<u>Dissatisfaction:</u> perceived antagonisms perceived discrimination dissatisfaction as regards income
Quality of life	<u>To love:</u> attachment to collectivity attachment to family friendship patterns <u>To have:</u> personal prestige non-substitution political resources action	<u>Satisfaction:</u> perceived happiness perceived satisfaction of needs

On discussing the QOL concept, Pavel Apostol (1975) concludes:

The socialist [communist] QOL consists mainly in ensuring each individual and everybody's freedom to adjust his living conditions according to his real needs and non-manipulated requirements.

In a study by M. Botez et al. (1977) on the interaction between individual aspirations and social needs, the following idea is stated:

A socialist mode of life, based on the dialectics of the ratio between what the society "provides for" and "demands from" its members, involves the regulation of individual aspirations in accordance with the level of socio-economic development and the values generated by the communist ideal.

The conceptual framework of the methodological approach we suggest is diagrammed in figure 1.

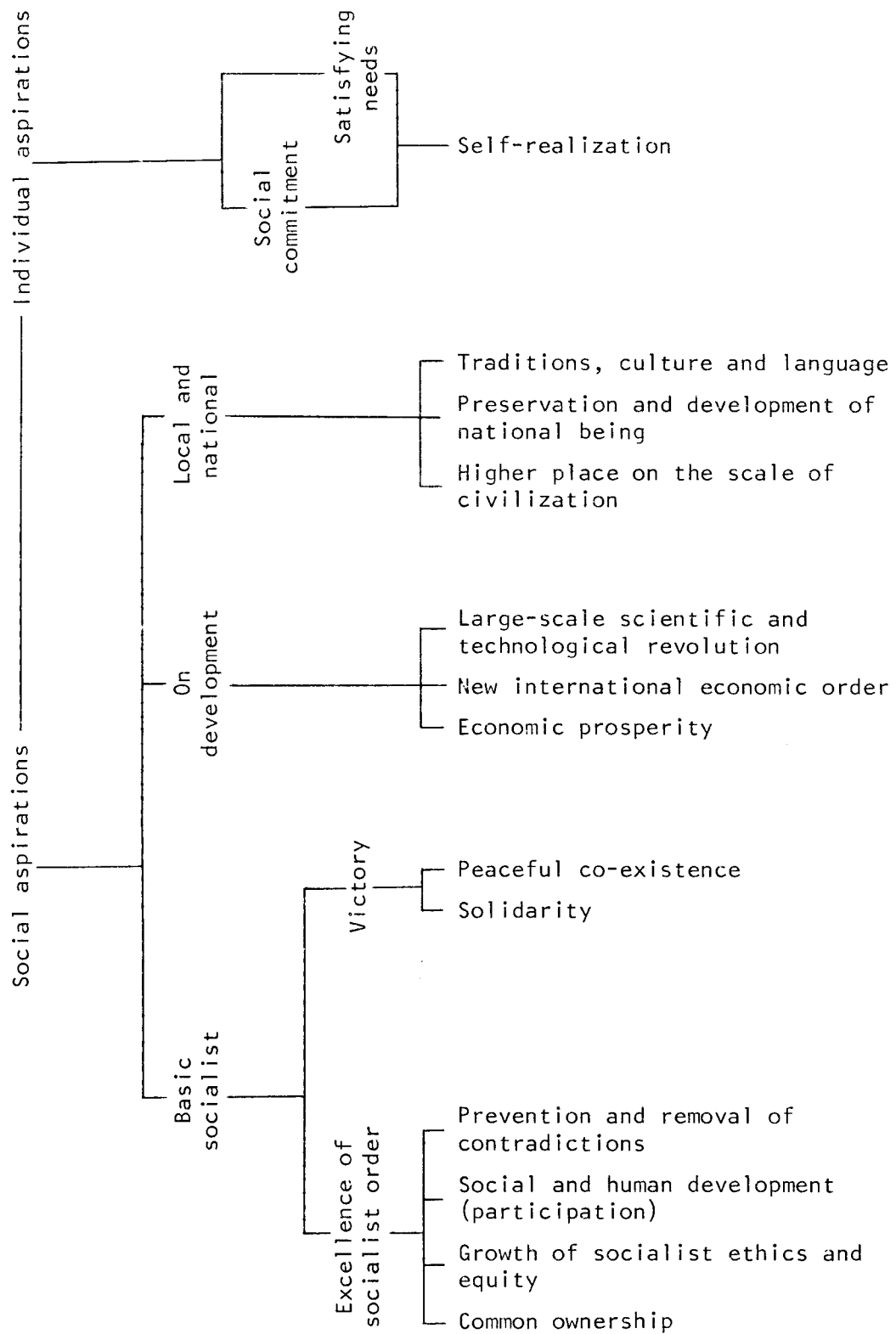


FIGURE 1

In conclusion we can say that there is a socialist QOL, related to a socialist definition of needs, aspirations, and values, to their specific way of interaction with resources, as well as to a specific mechanism of implementing social action programmes.

The improvement of the QOL is a special target of the action programmes and results in the general raising of social-economic living standards. The value of the QOL at any moment is a variable of the degree in which the proposed goals have been achieved, as well as of the system's state. The starting point is the social (group) QOL, which determines and is determined by the individual QOL. The concept can be individualized: the quality of working life, the quality of political life, etc. The control and management of the QOL is theoretically efficient, because of the requisites offered by the production forces and relations.

The ensemble of the foregoing considerations build up the socialist specificity of the socio-economic context, in which dialogue and participation become fundamental elements of a dialectic and prospective outlook on the QOL.

III. A FRAMEWORK FOR DESCRIBING ALTERNATIVE APPROACHES TO THE QOL PROBLÉMATIQUE

1. A METHODOLOGICAL APPROACH: SYSTEMATICALLY EXPLORING THE QOL LITERATURE AND BUILDING UP THE ALTERNATIVE APPROACHES

An important problem related to any kind of dialogue refers to the identity, number, etc. of the partner-actors involved. A (trivial) answer to this question (implicitly adopted in any comparative text analysis) would be: the partners are the known and available authors of papers in the respective field.

The present study attempts to provide another answer to this question. Thus, we have considered the available set of works on the QOL problématique as a selection from a larger variety of "unexpressed points of view," that we have tried to identify and describe.

With that aim, we used an interrogative procedure, suggested by C. West Churchman's (1972) "inquiring systems" theory. The results obtained thereby would subsequently undergo a "morphological treatment," inducing the viewpoints which — in a further step, using the "roles" method — would be involved in an attempt at a simulation of a dialogue on the QOL. We shall further describe this methodological structure, which seems to be of particular intrinsic interest.

Let's say P is a problem to be studied (in this case, the QOL) and $\bar{L} \equiv \{L_i, 1 \leq i \leq n\}$ a number of works in which this problem has been approached. After examining carefully these works, the group G of analysts formulate a "set of key questions" $\bar{Q}(P, \bar{L}) \equiv \{Q_j(P, \bar{L}), 1 \leq j \leq m\}$, which are interesting for the P problem (but

obviously a function of the literature \bar{L} and implicitly of its authors). Moreover, the answers to these questions will be functions of the same arguments. The key questions would be built by trying to identify questions really formulated in the work $\{L_i, 1 \leq i \leq n\}$ and processing this set of questions: finding, for instance, the same questions differently formulated; considering the more frequent questions (and those unanimously formulated); considering "the reunion" of all the formulated questions; etc. In the case of the present study, the formulation of the key questions was finally established within the framework of panel meetings of the G group of analyst-authors of the survey.

Further on, the key questions are applied separately to each item of the set of works $\{L_i, 1 \leq i \leq n\}$ and the G group of analysts build up the logically possible answers which had not been mentioned so far in the available literature. In other words, the fact that a specific answer is to be found in the available literature brings forward for discussion the alternative answers as well — even though they are not really mentioned in the literature. We may thus obtain implicitly an interrogative extension of the \bar{L} literature.

In the present work, we have sometimes completed the sets of alternative answers with short comments developed from the ideological and methodological standpoint of our G group.

We shall therefore associate with each $Q_j (P, \bar{L})$ question, a number of logically possible (alternative) answers $\{A_{jk} (P, \bar{L}), 1 \leq k \leq z_j, 1 \leq j \leq m\}$. We thus obtain the following table of answers associated with the P problem and the \bar{L} literature:

$$\begin{array}{l}
 Q_1: A_{11} (P, \bar{L}) \dots A_{1k} (P, \bar{L}) \dots A_{1z_1} (P, \bar{L}) \\
 Q_2: A_{21} (P, \bar{L}) \dots A_{2k} (P, \bar{L}) \dots A_{2z_2} (P, \bar{L}) \\
 \vdots \\
 Q_j: A_{j1} (P, \bar{L}) \dots A_{jk} (P, \bar{L}) \dots A_{jz_j} (P, \bar{L}) \\
 \vdots
 \end{array}$$

$$Q_m: A_{m1} (P, \bar{L}) \dots A_{mk} (P, \bar{L}) \dots A_{mz_m} (P, \bar{L})$$

We shall now define a viewpoint in the P problem, elaborated on the basis of the \bar{L} literature as a family of answers to the questions

$$\{Q_j (P, \bar{L}), 1 \leq j \leq m\} \text{ therefore as an element of the form}$$

$$\Pi \equiv \{A_{1k_1}, A_{2k_2}, \dots, A_{jk_j}, \dots, A_{mk_m}\}, (1 \leq k_j \leq z_j).$$

Thus, we shall identify from the \bar{L} literature, a number of

$$L = \prod_{i=1}^m z_i$$

(potentially) different viewpoints in connection with the P problem. The morphological character of our approach is obvious and we shall not dwell too long on this matter (see, for instance, R. Ayres 1969). We shall call the set of the so defined viewpoints an interrogative morphological space associated with the P problem on the basis of the \bar{L} literature, and we shall mark it by $\Pi (P, \bar{L}) \equiv \{\Pi_i, 1 \leq i \leq L\}$.

The study of this space may be an interesting problem per se.

We must therefore note that, at least a priori, some of the viewpoints may be intrinsically "logically contradictory" and are eliminated from the start, while other combinations may be totally unusual, stimulating innovation and creativity along some other channels than those mentioned in the available literature. Further on, it is obvious that some viewpoints will coincide with those put forth in the \bar{L} literature, while theoretically others will emerge as being directly derived from the \bar{L} works, as mixtures of the \bar{L} works, or even as extensions of them, in the sense of imagining answers in the spirit of some works and authors to questions which they in fact have not raised.

Further on, the introduction of a distance between the Π_i points may lead to a certain grouping of viewpoints (possibly of authors of works belonging to \bar{L} , as well!) which are difficult to be directly identified (taking into account the rhetoric of the discussion in which such

aspects are often presented). We may also introduce the relative shares of some viewpoints and a really democratic approach may be developed in the study of the P problem: identification of the real majority, of the points of maximum controversy, of the absolutely unusual aspects, of the essential convergencies and divergencies, etc. Finally, we may identify the aspects requiring further analysis, in order to allow for a more detailed consideration of the viewpoints, eventually by transforming them into new problems and applying the above mentioned approach from the start.

Before proceeding further, we must note that the notions of P problem and Q answers are dependent upon the studied contexts. Thus, a Q answer may become in itself a problem if the aspect which it describes requires further exploration and analysis.

In fact, we do not work then with a family of questions and answers, but with an arborescence of questions/answers (C. Picard 1967). In part IV we shall apply this general procedure, considering as the P problem not the "quality of life," but one of its aspects, its "measurableness"; the latter emerges from an answer to the initial set of questions which served as "excitant" for the QOL monitor problem.

The dialogue associated now with the P problem on the basis of the L literature becomes thus the dialogue between the Π_i viewpoints, $1 \leq i \leq L$, constructed similarly to the above described scheme. The operationalization mode of this dialogue exceeds the present framework of our work. At this point, a possible way to further develop the study requires the roles method, in which each member of a group of researchers (or a group of international researchers) agrees to assume the philosophy of a specific viewpoint Π_i , $1 \leq i \leq L$, and the group starts a critical debate on the P problem, simulating the behaviour generated by the respective viewpoints. This implies, for instance, a critical re-assessment of one's own standpoint, the study of all the implications of a viewpoint, the formulation of new questions and answers, the identification of the consensus areas and

of eventual projects of action, etc. A workshop could provide the organizational framework for developing such a dialogue.

Finally, we shall mention that the set of \bar{Q} (P, \bar{L}) key questions may be used as a basis for questionnaires to be submitted to other experts and the public. We shall thus obtain a "Delphi type" approach (H. Linstone and M. Turoff 1976), leading finally to an interrogative morphological space of the form described above.

2. DESCRIBING SOME VIEWPOINTS ON BASIC ISSUES GENERATING THE ALTERNATIVE APPROACHES

Even a brief presentation of the viewpoints on the QOL to be found in the field literature points out the variety of theoretical and methodological approaches.

We have analysed the content of 31 works in the field (marked with asterisks in the Bibliography). The studied literature defines the \bar{L} set: $\bar{L} = \{L_i, 1 \leq i \leq 31\}$. To get an insight into the QOL problématique, we formulated the following set of eight key questions \bar{Q} (P, \bar{L}) = $\{Q_j$ (P, L), $1 \leq j \leq 8\}$:

Q₁: What are the different ways in which the QOL may be defined?

Q₂: How can the concept of QOL be made operational?

Q₃: What are the relevant aggregation levels for studying the QOL?

Q₄: What are the determining factors for the QOL dynamics?

Q₅: What are the methodological attitudes that may be involved in the analysis of the QOL?

Q₆: What are the attitudes concerning the necessity and the possibility of measuring the QOL?

Q₇: What are the values and the reference system to assess the QOL?

Q₈: What are the intervention modalities able to change the QOL's dynamics?

Q₁: What are the different ways in which the QOL may be defined?

We shall review the main attitudes and points of view to be found in

the field literature, trying to identify the implied theoretical and methodological hypotheses.

A viewpoint adopted by many authors (C.A. Mallmann, J. Galtung, E. Masini, S. Marcus, the Unesco Report 1977) defines QOL by relating it to human needs. In this respect, Mallmann's definition is revealing:

It is a concept which refers to individuals, but determined, like aspirations, by the dynamic interaction between a given individual, his society and his habitat. Since it is determined by the satisfaction of aspiration, it ought to be analysed by at least the same number of dimensions as those which make up the human space. . . . The number of dimensions of human space is determined by the minimum number of independent needs with which the particular set of aspirations of any individual may be explained. [Mallman 1977.]

In the Unesco Report (1977) an operational definition of QOL as "the satisfaction of an inclusive set of human needs" is proposed. In discussing the concept, two points are emphasized:

QOL is an inclusive concept which covers all aspects of living including material satisfaction of vital needs as well as more transcendental aspects of life such as personal development, self-realization and a healthy eco-system.

And, "QOL has objective conditions and subjective components."

The relevance of the relationship between the QOL and human needs, rights, responsibilities, and health is also analysed. The importance of the human-needs concept has already been discussed. Its connection with the health concept is very close: "The requirements to be fulfilled in order to be healthy or vigorous we will call human needs." It is also necessary to consider the other two factors essential to the QOL concept:

Human rights and responsibilities declarations are statements of necessary conditions of inter-human, habitational, and social behaviour, whose fulfilment would enable the construction of environments in which all human beings could have the best quality of life compatible with equity.

Walter Scheel (1977) discusses the QOL concept in the framework of the man/way-of-life relationship. Asserting that "the QOL must not be limited only to the prosperity level," Scheel states that self-satisfaction is satisfaction with one's way of life; it is characteristic of an individual aspiring to dignity and aware of the significance of his life.

Mario Bunge (1975) defines QOL in relation to life-style. Different life-styles imply a certain degree of well-being or misery, thus leading to the idea of the QOL as an indicator which "contributes to the assessment of this degree of well-being."

S. Gulzar Haider (1975) defines QOL as connected with the dimensions of the self: "The state of self is taken as the key indicator of QOL." The dimensions of self taken into account are the following: love, values, feelings, intellect, knowledge, skills, will, action, and intuition.

Benjamin Nelson (1975) defines QOL in relation to the standard of living and the system of values. QOL includes the standard of living described as being "measures in terms of relative income and differential accesses to commodities, services and facilitations." In defining the concept, one must also refer to

the achievement of an adequate balance of central values, including central civilizational values . . . that is, the claims of passions and interest, the claims of logical rationality, of law and custom, and of political community.

Nelson concludes: "Quality of life refers to the imagined or fancied life of others – ideal actors explicating from the flotsam of their actual experience." In his view, reducing QOL to the standard of living would mean losing the significance given by the understanding of the structures of our existence, experience, and expression.

Walter Buckley (1975) defines QOL as a "complex function of the inter-relationships among major social and cultural institutions."

As Anatol Rapoport (quoted by Buckley 1975) points out, QOL is a normative or ethical issue and thus inherently demands a systems view, for the essence of the former is an appreciation of the inter-relatedness of things — the effects of one's actions on others and oneself, especially in the longer run.

In discussing the QOL concept, Norman Dalkey (1972) states that the more usual meaning is related to the environment and to the external circumstances of an individual's life — pollution, quality of housing, aesthetic surroundings, traffic congestion, incidence of crime, and the like — and forms only a limited aspect of the sum of satisfactions that make life worthwhile.

For a detailed analysis, Dalkey starts from the following hypotheses:

The basic components of the QOL are common to practically all individuals, and are only weakly dependent on ethnic or socio-economic status.

Differences between individuals in relative emphasis on the basic dimensions of QOL (relative priorities) are due in large part to the fact that trade-offs among the components depend upon how much the individual is receiving of each.

Many attitudes and beliefs which are labelled values are disguised rules for obtaining higher levels of QOL.

Finally, Dalkey suggests the following definition of the QOL:

. . . the degree to which an individual or a society is able to satisfy the perceived psychological needs. The level of the QOL is determined by barriers presented to the society and to its individual members in satisfying those needs. The medium of satisfaction is determined by the value system.

S. Cole, J. Gershuny, and I. Miles (1978) define the QOL in relation to living conditions and life-styles.

In a comparative analysis of the global models results, the authors use QOL as the main evolution criterion of the alternative scenarios of mankind's future.

Apostol (1975) defines QOL in relation to the society and individuals'

living conditions; the essence of the concept is the "free (non-manipulated) satisfaction of the fundamental rational needs." In socialism, the QOL is "the outcome of the social progress materialized at the level of the individual's life amenities."

QOL means the totality of the natural and cultural amenities, the variety and quality of the goods and services made available to the members of a given society, as well as the attitude of the members of the considered social system in respect to the amenities actually accessible for each and for all and reflected in the value assigned to them.
[Apostol 1975.]

Russell L. Ackoff (1975) looks at QOL in terms of its dynamics, emphasizing the individual's self-image on the QOL of its actions:

QOL — ordinary life, corporate life, work life, academic life, all kinds of life — is not a matter of products but of processes. It has to do with the satisfaction or dissatisfaction we derive from what we do with our possessions, material and spiritual, and not from what these possessions in fact are.

His idea operates in a conceptual framework determined by four action areas which define social evolution and progress: the scientific — the pursuit of truth; the political-economic — the pursuit of plenty; the ethical-moral — the pursuit of goodness; and the aesthetic — the pursuit of beauty.

Analysing the nature of the concept, Ackoff makes the following distinctions:

QOL is a matter of aesthetics and aesthetics is neither sufficiently understood nor adequately integrated with other aspects of life.

Style is one important aspect of aesthetics, hence of QOL.

The pursuit of ideals is the other important aspect of aesthetics, hence of QOL.

The QOL problem consists of failure to obtain stylistic objectives and loss of a sense of progress towards an ideal.

By "style," he means the individual's specific way of perceiving the contents of action:

The set of preferences which each of us has, that are independent of considerations of efficiency constitute our style. . . . Style has to do with the satisfaction we derive from what we do rather than what we do it for.

Jay W. Forrester (1971) considers the QOL as a way to measure the performance of the World System. The following components are taken into account and combined in a non-linear way: material living standard, crowding, food, and pollution. Adequacy levels are introduced:

Above a sufficient amount of food, further increments of food rapidly lose capability to raise the QOL. Likewise, below some acceptable level of pollution, further pollution reduction carries a low priority.

C.P. Wolf (1975) defines the concept using a holistic approach: "The QOL is a kind of summary measure or impression of the state of a social system, at the various points in time."

The specific value system is the main feature considered in the definition of QOL in socialist countries. The definition is related to the human personality and at the same time the characteristic man-system interrelations are pointed out.

The Romanian Dicționar de economie politică (1974) defines QOL with a broad meaning:

. . . the totality of conditions that make possible the integrity of biological life, the satisfaction of social and economic requirements, related to the material and spiritual standard that allows the balance and the permanent development of the human personality. QOL comprises (1) the quality of the environment, the man-nature relation; (2) the quality of the social environment, the material life conditions, human relations, political, moral, and spiritual activity; (3) the quality of the working environment; (4) the quality of the family environment.

Q₂: How can the concept of QOL be made operational?

According to the significance (either implicitly or explicitly stated)

ascribed by each author to the QOL, the way in which the concept is made operational reveals different attitudes.

Wolf (1975) looks upon QOL as an element of a system of values reflecting "a value conception"; thus it is a resultant playing the role of diagnosis in evaluating the state of a social system: "The QOL is a kind of summary measure or impression of the state of a social system, at the various points in time."

The same point of view is shared by Buckley (1975):

The QOL is a complex function of the interrelationships among major social and cultural institutions. Quality refers to group norms and values defining the good and beautiful.

Forrester (1971) defines QOL as a resultant: "the resultant of all the other curves."

S.C. Seth (1978) conceives QOL as a goal. In the special case of India, as a developing country, the author considers that the process of development must record two distinct stages: the first one devoted to the problem of survival, and the second one devoted to the achievement of a certain QOL.

Cole, Gershuny, and Miles (1978) view the QOL as a resultant. Among the variables influencing it, the authors mention political development, change, work, and industrial organization.

Q₃: What are the relevant aggregation levels for studying the QOL?

We will undertake to identify the successive levels of complexity in which the concept of QOL occurs and implicitly, to find the specific significances and interrelations attributed to the concept.

In the Unesco Report (1977), the concept of QOL is related to the following levels: individual, community or nation, global, and cultural.

Basically, QOL is experienced by individuals. It is their needs and aspirations that must be satisfied if QOL is to be experienced and they should be consulted concerning the way that they experience QOL.

The QOL of a community or of a nation is related to the qualities as individually experienced by the people who live in them.

QOL also is global in scope and significance because mankind has many vital problems that can be solved only by global co-operation.

We can expect that QOL will be pursued differently in different cultures.

Mallmann (1977) introduces the concept at the individual level:

QOL is determined, like the desires, by the dynamic interaction of the person with himself, the habitat and society. As a consequence, in a given moment, there are as many desired qualities of life as human beings.

Johan Galtung (1976) shares the same opinion, taking a different stand from the authors who operate with a standard image of the individual:

[If] QOL is to have any meaning at all, it should refer to the total life-span of any one individual, not to some kind of average of everybody in a society at a given point in time.

Eleonora Masini (1975) refers, when analysing the concept of QOL, to the level of the group or nation: "The QOL of a group or nation depends on the dynamics of his needs and satisfaction/non-satisfaction."

In the definitions given by other authors, the relevance of the concept of QOL is also underlined as necessary in understanding national behaviour:

A person's QOL depends upon his contributing to the ongoing effectiveness of the social system which he is a member and upon his building and maintaining high quality relationships with other people. [David Johnson 1975.]

The QOL of an individual is the key parameter of the quality of collective human life on this Earth. [Haider 1975.]

Forrester (1971) makes use of the world system as a level of reference, while defining QOL "as a measure of performance of world system."

Cole, Gershuny, and Miles (1978) introduce the concept of QOL at the world level in the comparative analysis of the scenarios of development connected with global models.

The specificity of the "observer" — the person operating with a certain concept according to a certain aim — should be stressed as an important element in the discussion on the operationalization of the concept. Thus, when the ecologist or environmentalist speaks of "life quality," he is thinking mainly of social units, nations, or state.

Q₄: What are the determining factors for the QOL's dynamics?

Studying the dynamics of the QOL evolution is necessary in order to make the concept operational and bring out the role and relative importance of various endogenous and exogenous elements.

To Mallmann (1977), "The QOL of a person depends on the dynamics of his desires satisfaction/insatisfaction. . . ." And for Masini, there is "a dynamic interaction of a person with himself, the habitat and the society," in the context of ". . . changing life-styles under the pressure of global problems (energy crisis, unemployment)."

Nelson (1975) deals with problems concerning the dynamics of the QOL in a more extensive context. He concludes that there is a relationship between the QOL and the following socio-cultural processes:

The scientific-technological — perspectival revolution now evident across the entire world in explosion of new knowledge, facilitations and world views.

The spatio-temporal revolution, marked by extremely intense contractions of time and space largely resulting from the first revolution mentioned.

The rationalized revolution especially evident today in the accelerated spread of actuarial cost-efficiency logics and managements in industrial, military and political structures and programs.

Socio-morphological revolutions, the explosions and implosions of conflicting groups — ethnic, religious, class alignment, in cities, regions and national states.

What is sometimes spoken of under the heading of the equal share, "freedom now" revolutions.

The world revolutions in the structures of conscience and consciousness, especially evident in the schisms and civil wars among proponents of rooted solidarities and spokesmen of transcultural communions.

Ackoff (1975) analyses the causes which lead to dissatisfaction with the QOL. In his terms, style involves ". . . the satisfaction one receives at the present moment from doing whatever one does, and ideal-pursuit involves the satisfaction one receives from a sense of progress."

Considering that "the QOL of an individual's life depends in part on the extent to which his stylistic objectives are satisfied," Ackoff identifies the following dissatisfaction elements:

- deterioration of man-made environment;
- deterioration in our aesthetic environment;
- less and less satisfaction is being derived from the ordinary things one does (reducing of the quality of work life is a special case of the dissatisfaction);
- the growing belief that much of the increasingly rapid cultural and technological change is "getting us nowhere": fatalism and resignation to a future that is determined by our past, rather than by what we will do between "now and then."

The solution he suggests is: "The key to improved QOL is not planning for or measurement of others, but enabling them to plan and measure for themselves."

Referring to the main elements which bring about changes in the QOL, Dalkey (1972) mentions

specific technological revolution, increased standard of living, increased level of education, population increase, leisure, democratization of social systems, increased public attention to human values, increased international exchange and communication, increased armaments, political tensions, dehumanization and satiety, increased secularization of life, and loosing of family structure.

Q₅: What are the methodological attitudes that may be involved in the analysis of the QOL?

We shall examine the way in which various authors approach the process of evolution from the description of the concept to the identification and understanding of its successive significances at a conceptual level.

In the Unesco Report (1977) QOL is seen as having objective conditions and subjective components, and an attempt is made at defining the process by which a person reaches a certain attitude concerning the QOL (see also Mallmann):

The human needs that are subjectively experienced are satisfied by objective conditions or "satisfiers." The satisfaction that an individual receives from the satisfiers (objective conditions) is subjectively experienced.

Mallmann (1977) distinguishes between the objective QOL and the subjective QOL, using a part-whole approach for describing the two notions. Thus, the components of the objective QOL are to be seen in "the frequency of use or consumption of satisfiers of different needs and their quality." As for the subjective QOL, its components are obtained by "the person's evaluation of the relation between the desired and the actually obtained satisfiers, need by need."

With regard to the process of integration and aggregation of the specific components of each type of quality previously identified, Mallmann states that in the case of the objective QOL "every person has his own criterion based on his needs and satisfiers priorities"; as regards the subjective QOL, the components synthesis is reached on the basis of a certain "composition law."

Haider (1975) takes into consideration nine dimensions of self which define the occurrence of a state of self, "self" meaning "an organization of experiences into a dynamic whole." A link with the QOL is drawn at once, since "the state of self is taken as the key

indicator of QOL." Using the following structure of the modal aspects of self: value, emotive, cognitive and conative aspects, he suggests as a possible integrating approach a negentropic evolution towards comprehensivity and wholeness, as opposed to disjointedness and polarization of self.

Forrester (1971) looks upon QOL as a holistic indicator of the state of the social system, as a "measure of performance of world system," identifying a number of parameters with non-linear behaviour whose combination results in the QOL.

An object can be described by means of a "positive model" by answering the question "What is it?" (or "What should it be like?") and obtaining a multi-dimensional representation, which uses a large number of criteria derived from the accepted system of values; or it may be described by means of a "negative model" — by answering the question "What is it not?" (or "What shouldn't it be like?") and obtaining a representation which generally includes the looked-for "negative" image, without being restricted to it alone.

Galtung (quoted in the Unesco Report 1977) suggests a criterion for the negative model:

If the threshold of satisfaction varies in time and space, and in unknown manner, then we should not know whether the absence of a positive criterion means that the dimension is not a need-dimension, or that the threshold has not yet been reached, whereas the presence of a negative criterion is a clear indication that some need is not satisfied.

He exemplifies the negative criteria by means of the idea of disintegration, which "should be linked to goals that are so deeply embedded in the psycho-somatic structure of human beings that they can be referred to not only as needs, but as basic needs."

A model for types of disintegration, delimiting the concept of disintegration, is suggested (table 2).

TABLE 2

	Absolute	Partial
Individual level	Death	Somatic disease Mental disease
Social level	Revolution	Apathy Anomie

For the following authors, who define the QOL in relation to (basic) human needs, we consider that the way in which the concept of need is introduced is implicitly significant for the approach used in studying the QOL as well.

As an example of the positive model, we quote Masini (1972): "By basic need is meant that requirement that calls for an answer for human survival or for a significant existence or for man's possible full existence."

The way in which Mallmann and Marcus (1978) introduce the concept of need is relevant for the negative model:

A need is an objective requirement to avoid a state of illness . . . when the performance of a person is less than that which could potentially be attained, judged by the best performance observed in other human beings, we say that the person is ill.

An example for the scheme of criteria suggested by Galtung in describing the QOL is Rinald Manderscheid's approach (1975), which shows that "stress indicates life quality."

This approach aroused the interest of a large number of authors, and accounts for the rich literature particularly devoted to this topic, which lies at the border of social sciences and psychology or even medicine.

R.F. Geyer (1975) deals with alienation and stress, pointing out their similarities and dissimilarities. He states that stress acts on short-

term interval and disappears once the stimulus is removed, while alienation is a long-lasting phenomenon. Alienation is connected to the growing complexity of the human environment.

Q₆: What are the attitudes concerning the necessity and the possibility of measuring the QOL?

From the methodological viewpoint, some authors use the approach which starts from the data to the model – based on various survey types and techniques, while others start from a specific conceptual model which is tested within the framework of specific case analyses, at various aggregation levels, ranging from the individual to the global.

The identification of a specific type of measure associated with the concept of QOL is still a controversial issue:

The aggregation of individual life experiences to arrive at a summary statement of a QOL of a community or a nation is one of the most difficult problems of quality of life research. [Unesco Report 1977.]

The Unesco Report also states:

QOL has as many components as there are needs. The person's evaluation or perception of the relation between the desired and the actually obtained satisfiers, need by need, determine the components of the QOL.

Therefore, it may be assumed that the QOL is good when

. . . the members of a society can all develop according to their potentiality and hence satisfy equitably according to their judgement their vital concerns – living, growth and perfection needs, i.e., all their needs, without having been impaired during their youth or later.

The following methodological approach is suggested to obtain models of the need system:

Starting with a definition of human and certain criteria for their classification, the way to arrive at these descriptive needs systems is to look for a minimum orthogonal complete set (in the mathematical sense) of needs with which one can

describe any human behaviour or state of health or of illness.

In order to work in the framework of alternative views regarding "all possible human behaviours" (H. Bossell 1976), or "the number of dimensions of the human space" (Masini 1972), the creation of a "co-ordinate system with a procedure to translate statements from one descriptive system to another" is required.

When analyzing the specific features of QOL research, two factors are mentioned: that "it uses both objective and subjective indicators, with an emphasis on the interaction of these two sets of indicators," and that "its data basis comes mainly from sociological surveys."

As regards the measurement of the objective conditions of the QOL, the Unesco Report mentions that they are determined by "the frequency of use and/or consumption of satisfiers, their quantity and their effectiveness for satisfying each need."

The authors of the Report conclude that the problem of measuring the QOL and its components is of utmost priority, the more so as "perceptions of quality may vary slightly, although the objective conditions of QOL vary greatly."

Moreover, when defining the concept of QOL in relation to human needs, the typology of the needs system as well as the type of measurement associated with the system implicitly reflect the methodological approach used in the study of the QOL problem.

Mallmann and Marcus (1978) formalize the problématique of needs, while considering the interaction between theoretical models and empirical facts:

The general framework we are proposing has the status of a mathematical (mainly set theoretic) model. The immediate purpose is to choose some primitive concepts and facts in the study of needs, by means of which most of the important concepts and results can be derived, in a logical, syllogistic way.

Several levels of abstraction are identified, the basic problem being the way of correlation and synthesis of these levels. With this aim in view, new mathematical and semiotic tools are suggested:

- MODAL LOGIC Study of relations between needs, desires, rights, and human values.
- DECISION THEORY Study of strategic aspects concerning relations between social groups in obtaining the corresponding satisfiers.
- AUTOMATA THEORY Study of generative processes explaining the regularities appearing in the dialectic of desires and satisfiers on the one hand and desires and needs on the other.
- SEMIOTICS Study of the alienation problems generated by the divorce between desires and satisfiers, between satisfiers and needs.
- TOPOLOGY Study of qualitative behaviour, which cannot be reduced at distance evaluations or with some discontinuous aspects.

Bossel (1976) suggests "possible mathematical performance measures for each component of the needs dimensions," considering that the crucial role in the normative system is played by the basic needs, "whose satisfaction to a greater or lesser degree is required for proper system operation." (See table 3.)

TABLE 3

	Basic Needs Dimensions for Individual and Societal Systems	Possible Measures
Current viabi- lity	BASIC PHYSIOLOGICAL/ PHYSICAL-SUPPORT NEEDS SATISFACTION: All aspects required for survival and maintenance of health of the physical system.	Normalized sum of weighted distances from survival thresholds of the individual aspects in this category.
	BASIC PSYCHOLOGICAL NEEDS SATISFACTION: All system- specific affective or emotional aspects.	Normalized sum of weighted distances from minimal levels of the individual aspects.
	ADOPTED NEEDS SATISFACTION: All aspects which have been	Normalized sum of weighted distances from minimal

	Basic Needs Dimensions for Individual and Societal Systems	Possible Measures
Future viabi- lity	adopted by the system in the course of its development, originally in order to secure primary basic needs.	levels of the individual culture-dependent aspects.
	SECURITY: All aspects of short-, medium-, and long-term security of adequate needs satisfaction to ensure viability under changing external constraints.	Future-weighted probable distance of projected state from (survival) thresholds, integrated and normalized over the system's operational time-horizon.
	FREEDOM OF ACTION: All aspects enhancing freedom of action and motion of the system.	Future-weighted probable distance of projected state from constraints, integrated and normalized over the system's operational time-horizon.
	PREPAREDNESS: All aspects enhancing the ability to cope adaptively with a new situation.	Future-weighted probable relative increase in the number of options, integrated and normalized over the system's operational time-horizon.
	ROBUSTNESS: All aspects lessening the chances of dynamic system failure.	Future-weighted probable potential of recovery to stable dynamic equilibrium following likely perturbations, integrated and normalized over the system's operational time-horizon.
	PREDICTABILITY: All aspects which lessen uncertainty (increase understanding) about relevant possible future states of system and environment.	Future-weighted probable increase in the relevant information level available to the information-processing system, integrated and normalized over the system's operational time-horizon.
	SUCCESS: All aspects leading to more successful and efficient system operation.	Future-weighted, probable goal distance times goal pursuit cost (weighted vector sum), integrated and normalized over the system's operational time-horizon.

Basic Needs Dimensions for Individual and Societal Systems	Possible Measures
ABILITY TO INFLUENCE ENVIRONMENT: All aspects which allow manipulation of the environment to the benefit of the system.	Future-weighted probable beneficial environmental change (weighted vector sum) as compared to the implemen- tation cost to the system, integrated and normalized over the system's operational time-horizon.

E. Hankiss (1976) makes a comparative analysis between two types of models used in the analysis of the QOL – the taxonomic and the matrix model – from the point of view of the capacity of these models to operate with a given number of values.

- a. Taxonomic models: applicable in large-scale surveys measuring the distribution of some basic social policy outputs.
- b. Matrix models: efficient when the distribution of a wider range of values is to be registered.

(See figures 2 and 3; the diagrams are a possible interpretation of Hankiss's models.)

The main advantage of matrix model is "that their rows and columns can be methodically sounded for values – and through them for human needs – that previously may have remained unobserved."

Bunge (1975) considers that "a QOL indicator is supposed to contribute to the assessment of the degree of well-being."

The definition given to the QOL indicator is:

Let S be a set of reliable indicators of the state of the individual components of some human community C. Then if x belongs to S, x is a QOL indicator if and only if x is an indicator of the physical, psychical, social, or cultural well-being of the individual members of C.

Bunge mentions some aspects of methodological interest for the research

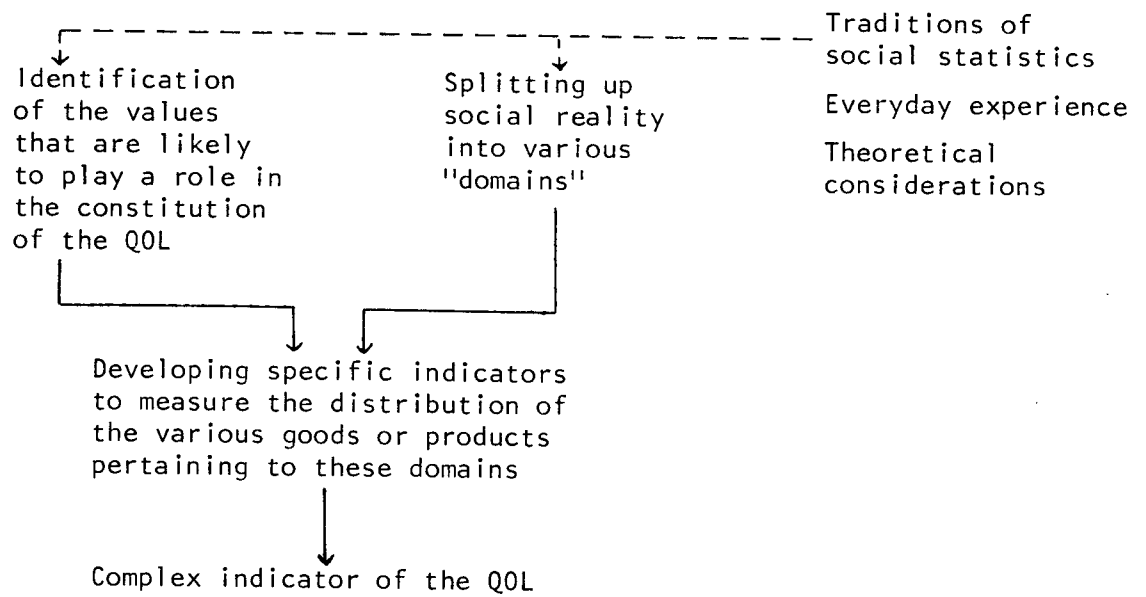


FIG. 2. Taxonomic models

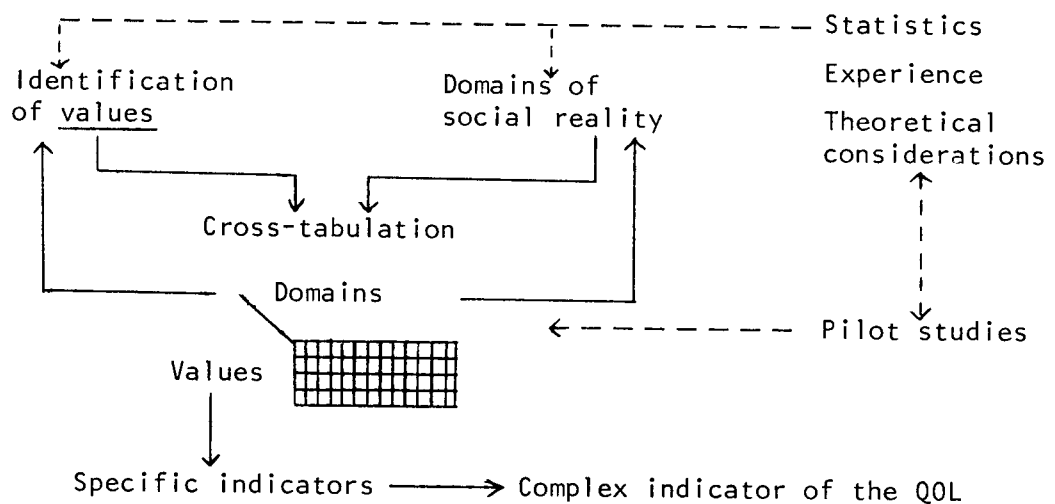


FIG. 3. Matrix models

in QOL indicators:

- The definition of a QOL indicator employs the undefined notion of overall wellbeing;
- Some of the QOL indicators are normative rather than descriptive;
- Some QOL indicators are not only normative, but also subjective.

Galtung (1976) underlines the necessity of using explicit criteria in order to avoid "something not accounted for otherwise." He differentiates between positive and negative criteria, pointing out the fact that the use of positive criteria may be irrelevant in certain cases, because "we should not know whether the absence of a positive criterion means that the dimension is not a need-dimension, or that the threshold has not yet been reached."

Apostol (1975) claims that, when measuring the QOL dimensions, a set of social indicators may be used, divided into two subjects: one referring to accessible amenities and the other comprising evaluations. Further on, the weight of each social indicator is highlighted "in a certain set defining a certain QOL."

Ota Sulč (1973), who defines the QOL as related to life-style conditions, suggests a forecasting approach, based, in the first step, "on the decomposition and subsequent synthesis of life-style components and their indicators."

When discussing the problem of the measurement of the QOL, Ackoff (1975) starts from the following assumptions:

Neither good measures nor indices of QOL are available.

An alternative to measuring the QOL is participative planning.

The kind of participative planning that best reveals relevant styles and ideals is based on the idealized redesign of a system.

Starting from the idea that the "QOL in an organization, community, or society is derived from the QOL of the individuals within it," Ackoff claims that "measurement of an individual's QOL is very difficult, but not impossible."

As regards the effort towards obtaining social indicators of the QOL, the author considers that they "appear to serve as surrogates of appropriate measures." A fundamental methodological difficulty hence exists: The usefulness and appropriateness of an index depends on how

well it correlates with the measure for which it is a substitute. But since we do not have such a measure, we cannot adequately evaluate any of the proposed indices.

Another methodological approach would be to develop indices which correlate with qualitative judgements of the QOL. But then other methodological problems are raised: "Whose judgement, made when and where, should be used? What confidence can be placed in these judgements? If we justify the use of indices by their correlation with qualitative judgements, why not use the judgements themselves?"

So, Ackoff concludes that the qualitative assessments are useful only in identifying problems and are inefficient when the aim is to determine and optimize the resources directed to solving these problems.

He sets forth an alternative approach to the problem of the QOL which does not require measurement: participative planning. "The planning problem of social planners should be, not how to improve the QOL of others, but how to enable them to improve their own QOL."

Dalkey (1972) identifies the two methodological approaches to the identification of the contents of the concept of QOL that have been used:

- a. The armchair approach — "devising a list of general factors that are presumed to be significant in determining the wellbeing of humans."
- b. Public surveys — "analyses of the results of extensive interviews with cross-sectional samples of the public."

Dalkey proposes a Delphi investigation of the QOL models, as a preliminary structure to guide empirical investigations. The "open" problems in his view are those connected to the identification and completeness of qualities, measurement (scalability) of qualities, temporal variation, comparison level, and global function.

The research approaches suggested are the following: Delphi, cross-sectional survey, scale construction, and time study. Table 4 summarizes his discussion of issues and research approaches.

TABLE 4. Approach Summary (after N. Dalkey 1972)

Issue	Delphi	Survey	Scale Construction	Time Study
Identification and completeness of qualities	xx	xxx	x	xx
Global index	xx	xxx	x	xx
Time variation	x	x	xx	xxx
Scalability	x	xx	xxx	xx
Comparison level	xx	xxx	x	xxx
Relation to policy	x	xx	—	x

Note: xxx = Probably will establish significant relationships.
 xx = Will furnish basically needed information.
 x = Will furnish useful data.

Forrester (1971) makes use of the concept of QOL as a resultant of the functioning of the world system.

In his model, QOL is computed "as quality of life standard multiplied by four multipliers derived from material standard of living, crowding, food and pollution."

The hypotheses taken into account when working out his model are the following:

The four component inputs to QOL must be derived and combined in such a way that they properly reflect the urgency of the different components of QOL.

The adequacy levels of QOL components are recognized.

The shifting priorities (derived from the nonlinear character of QOL factors) should be reflected in the composite QOL which is generated from its components.

E. Taschidjian (1975) claims:

Traditional attempts to measure the QOL in terms of GNP have failed because qualities can be measured only in ordinal, not in cardinal numbers. Degrees of quality are not additive and a curve relating intensities of qualitative inputs with corresponding outputs is nonmonotonic and nonlinear.

As "reasoning about qualities always involves whole-part relations which are not logical, but dialectical and this precludes complete deductive certainty and necessitates a probabilistic assessment," Taschidjian suggests the application of a mathematical treatment developed on the basis of the information content of the quality. The mathematical aspects are tackled by K. Krippendorff (1971) and H. Theil (1972).

As regards the assessment of the QOL, the proposed methodological approach implies an evaluation of the information content of a multi-dimensional profile.

Q₇: What are the values and the reference system to assess the QOL?

The problem of the assessment of the QOL implies an examination of the reference system and values used by the various authors.

The relation between the definition of the QOL concept and the system of reference — past, present, or future — implies differentiated attitudes when making the evaluation: (1) as compared to the past, the analysis of the concept follows a historical assessment and the QOL is seen as a result; (2) referring to the present, the assessment of the QOL implies a comparative analysis and assessments of the future situations of the reference groups, the QOL being a present state, and its evaluation being a diagnosis; (3) referring to the future, the QOL is seen as an objective, and the assessment has consequently a prospective nature.

Galtung (quoted in the Unesco Report 1977) approaches the problem of the evaluation criteria of human needs and implicitly outlines the

conceptual framework for the assessment of the QOL:

These criteria should be reasonably empirical in the sense that there should be something (intersubjectively perceived and communicated) one can point to, saying: "Look this means that some need was/was not satisfied." On the other hand the criterion should also be reasonably universal, meaning relatively independent of time and space, enabling us to use the criterion to formulate something about human needs, not only the needs of a special group in a special time-space niche.

The Unesco Report (1977) emphasizes the importance of the system of values in dealing with the QOL research: "It is conscious of the plurality and relativity of value frameworks."

Wolf (1975), examining the historical dimension of the concept, points out the existence of a cultural relativity in the QOL.

Starting from the assumption that cultural variations and historical patternings have a systematic character, Wolf finds the systemic approach to be necessary. In this context, the research concerning the QOL must study the evolution of values:

We can also suppose that values themselves are some kind of function of experience that is systematically patterned, and what we would then wish to do is to discover the outlines of that pattern, the content of that experience, and its result on the value configuration which we might identify as QOL.

Q₈: What are the intervention modalities able to change the QOL dynamics?

This problem implies the search for attitudes and specific means for action concerning ways of pursuing and controlling the evolution of the QOL.

A well known approach in the field literature deals with informing and preparing public opinion by means of dialogue, leading toward social participation. Many authors address themselves to decision-makers in

order to rouse their interest in the QOL problématique as well as to offer concrete solutions and ideas for solving the problems involved.

Governmental institutions (such as the French Ministry for the Quality of Life), consulting agencies (such as the Office of Technology Assessment of the US Congress), or various forms of international cooperation (such as the Unesco Programme on Man and Biosphere) try to integrate national as well as international efforts.

Mallmann (1977) thinks that the socio-motivating system plays a leading part in improving the QOL, and consequently he strongly supports the idea of a "synergetic" society, based on participation.

Massimo Brighi (1975) stresses:

Improvement of the QOL in a future society should come from eliminating the attitudes and behaviours related to the past society and developing in the mean time a new way of dealing with men.

Ackoff (1975) suggests participative planning, because "participation, which is a form of self-control, is itself a major source of satisfaction and hence of improved QOL." He defines the content of his approach as

. . . involvement in a future-creating process to design, plan and develop social systems in which each member of the system can participate effectively and thus bring more of his own future under his own control.

In this context, Ackoff specifies: "The kind of participative planning that best reveals relevant styles and ideals is based on the idealized redesign of a system." Special attention is focused on the relation between technology, economic development, and the QOL.

Vijay Chebbi (1978) thinks economic development does not necessarily improve the QOL but may endanger it by environment pollution, consumption of scarce resources, and the energy crisis. He points out the necessity of undertaking technology assessment studies, with a view to "assess the overall implications of a particular technology

on the QOL, both present and future."

In the same context, Dieter Schumacher (1973) considers the main objective of the technological assessment to be "to make better use (in a quality of life and public acceptance sense) of present and future technologies."

Buckley (1975) deals with the QOL problématique in a social systemic view and criticizes those attitudes which try "to find solutions to social problems focusing only on one institutional area as if it were the independent variable" or which "focus on individuals rather than the system of social relations and structure that they make up."

Buckley thinks:

the key area of study in pursuing greater QOL is the area of social system regulation and control — the cybernetic properties and potentials of societies and of international system.

Taschdjian (1975) stresses the positive influence which the continuous diversification of the activities carried out by the members of the society is exerting on the degree of structuredness of the society.

He states:

Contrary to the environmental thesis that our QOL, on the average, will be raised if we give everybody the same income, such a homogenization of society will produce a deterioration of life quality.

In conclusion, Taschdjian writes: "What we demand to increase our individual QOL is not more matter, but more information. The problem of QOL is not one of nature, but one of culture."

IV. A PRELIMINARY STEP IN TESTING THE METHODOLOGICAL APPROACH

To anticipate the methodological approach used in analysing the identified viewpoints, we will display a study of the measurement of the QOL.

The approach was suggested by the technique of interrogative trees. Starting from the question "What measurement can be used in relation to the QOL?" a subset of specific questions was constructed, in order to identify the implicit or explicit, conceptual or methodological attitudes contained in the various points of view stated during the debate on problématique regarding the measurement of the QOL.

On the levels associated with this subset of questions, various alternative answers occur, which can be logically extended, although they have not been considered yet in the literature.

The authors used to exemplify this type of analysis are: R. Ackoff, N. Dalkey, J. Forrester, C.A. Mallmann, and E. Taschidjian.

The trajectories in the resulting tree (see figure 4) suggest the attitudes of these authors. Taking into account their methodological interest and the amount of details used for expliciting a certain viewpoint, one, two, or all the levels of the resulting tree can be taken into account.

To find answers to the question concerning the measurement modalities, we think it is enough to take into consideration the first three levels of the tree. Hence the following answers are obtained:

— QOL direct measurement.

Questions	Effective (or Possible) Answers	
Is QOL measurement needed?	<u>Yes: It Is Necessary</u> Dalkey Forrester Mallmann Taschdjian	<u>No: it Isn't Necessary</u> Ackoff
Is QOL measurement feasible?	<u>Yes: It Is Feasible</u> Dalkey Forrester Mallmann Taschdjian	<u>No: It Is Not Feasible</u> Ackoff
What are the alternatives regarding the realizability of the measurement?	<u>Direct Measurement: QOL Is Measured</u> Dalkey Forrester Taschdjian	<u>Lack of Measurement: An Appropriate Measure Has Not Yet Been Built</u>
	<u>Indirect Measurement: Non-QOL Is Measured</u> Mallmann	<u>Alternative Approach: Participative Planning</u> Ackoff
What is the way of perception: in itself, or through intermediate sensors?	<u>Perception Through Other Sensors</u> Dalkey Forrester	<u>Perception in Itself</u> Ackoff Mallmann Taschdjian
Does measurement concern: facts, facts and values, values and facts, socialist values, or values?	<u>Facts</u> Dalkey Forrester	<u>Values and Facts</u> Ackoff
	<u>Facts and Values</u> Mallmann	<u>Values</u> Taschdjian
		<u>Socialist Values</u>

Questions	Effective (or Possible) Answers		
Does methodology imply an analytic or holistic approach?	<u>Analytic Approach</u> Dalkey Forrester Mallmann Taschdjian	<u>Holistic Approach</u> Ackoff	
Does methodology imply a Lockean, Leibnizian, Kantian, Hegelian, Singer/Churchmanian, or Marxian approach?	<u>Lockean Approach</u> Dalkey	<u>Kantian Approach</u> Mallmann	<u>Singer/Churchmanian Approach</u> Ackoff
	<u>Leibnizian Approach</u> Forrester	<u>Hegelian Approach</u> Taschdjian	<u>Marxian Approach</u>
Is the methodological approach of the diacronic or synchronic type?	<u>Diacronic Approach</u> Ackoff Dalkey Forrester Mallmann	<u>Synchronic Approach</u> Taschdjian	
On what level is the assessment done: individual, group, national, international, or global?	<u>Individual</u> Mallmann Taschdjian	<u>National</u> Ackoff	<u>Global</u> Forrester
	<u>Group</u> Dalkey		<u>International</u>
What type of result is obtained: qualitative and/or quantitative evaluation, comparative evaluation, scenario-writing/image or programme for action?	<u>Qualitative and/or Quantitative Evaluation</u> Dalkey Forrester Mallmann	<u>Comparative Evaluation</u> Taschdjian	<u>Scenario-Writing/Image</u> Ackoff
<u>Programme for Action</u>			

FIG. 4. Answers analysis concerning question Q₇

- QOL indirect measurement (namely, the non-QOL is measured).
- Lack of an appropriate QOL measure.
- Non-feasibility of the measurement.
- The measurement is unnecessary.

This methodological approach is oriented toward an integrating treatment of the answers based on the morphological method and the method of interrogative trees with a view to avoiding a formal linear treatment.

V. IN LIEU OF A CONCLUSION

Our attempt should be obviously considered as a first speech in a dialogue in the GPID network; participants are thus invited to evaluate, criticize, and complete our analysis.

We would like to be the first to suggest points calling for debate. The approach proposed in this paper has a strong book character, and, as Johan Galtung put it, it is quite difficult upon reviewing the scientific literature to say what "good life" really means. The dialogue we have tried to facilitate is in fact a dialogue between experts dwelling upon the QOL in scientific works. Such a dialogue is surely necessary (anyway, it is better than a monologue of a single researcher) but is certainly insufficient, especially if studied within the philosophy of the GPID project. At least two viewpoints essential for any investigation in the social field cannot emerge from our approach: those of the "common man" (not of his image proposed by experts, but of a real individual expressing himself directly) and of the real decision-makers of the present-day world; their realistic participation in this debate is an open question, of a high theoretical and methodological complexity. The theoretical interest and the practical applicability of any serious debate on the quality of life depends to a large extent on how this problem can be solved.

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