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AUTHOR Bierschenk, Bernhard
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ABSTRACT

The purpose of this paper is to explain how the Swedish citizen has developed his (or her) judgment concerning quality of life, attributable to real and simulated civilizations. It builds on a previous research report (B. Bierschenk, 1997) about three model societies that have been studied with the assumptions that: (1) competition implies selection; (2) selection implies independence; and (3) independence implies success. In this article it is shown that "certainty in preferential judgment" (judgment of life quality) constitutes a behavioral expression of survival competence. With a focus on the demonstrative definition of competence as development at the edge of competition and success, the study has generated two topographically derived scales. One is a time scale (T1) that is local and measures ecological variation. The other is a time scale (T2) that is global and measures evolution. (Contains 2 tables, 12 figures, and 8 references.) (Author/SLD)

A Topometric Approach to Life Quality across Comparted Time and Projected Societies

Bernhard Bierschenk

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Cognitive Science Research
Lund University
University of Copenhagen

Cognitive Science Research

Copenhagen Competence
Research Center
University of Copenhagen
Njalsgade 88
DK-2300 Copenhagen S
Denmark

Adm. editor

Helge Helmersson
Dep. of Business Adm.
Lund University
P.O. Box 7080
S-220 07 Lund
Sweden

Abstract

To explain how the Swedish citizen has developed his judgement concerning life quality, attributable to real and simulated civilisations is the aim of the present study. It builds on a research report (Bierschenk, 1997) about three model-societies that have been studied with the assumptions that (1) competition implies selection, (2) selection implies independence and (3) independence implies success. In the present article it is shown that "certainty in preferential judgement" constitutes a behavioural expression of survival competence. With a focus on the demonstrative definition of competence as development at the edge of competition and success, the present study has generated two topographically derived scales. One is a time scale (T^1) that is local and measures ecological variation. The other is a time scale (T^2) that is global and measures evolution.

Simulation of Alternative Living Conditions

To understand the chosen strategy of experimentation and measurement, it is necessary to capture a few concepts. These are the following three basic concepts of science, namely "affinity", "structure" and "process". It has been demonstrated in Bierschenk (1988) that these concepts constitute the foundation of the three civilisations or model-societies that have been under consideration.

The Concept of Affinity in the Behaviour Modification Model. Development of behavioural strategies is mainly seen as a consequence of reactions to conditions in the environment. That consistency in behaviour can be improved has been basic for the interpretation of human behaviour. However, a requirement is regularity in the behaviour setting, in which the individual is observed repeatedly. Because behaviour is a response to stimuli variations located outside the organism itself, behaviour has to be observed under different circumstances rather than with respect to how the individual stands in relation to others.

The Concept of Structure in the Humanist Model. A new category of improved behaviour is manifested as soon as a Gestalt appears that is superior to a preceding Gestalt. Leaving behind one class of behaviour, by adopting a new class that owns a higher degree of form and organisation, is indicating maturity. Thus, a change is dependent on the maturity of the psychological structure, which is effected through incoming information.

The Concept of Process in the Growth Model. Postulated is a reciprocal causation of information pick up and structural development. It follows that behavioural development is controlled through internal and external constraints. These have developed as the result of the individual's explorative behaviour. This kind of categorical statement asserts change and novelty. Both are linking the individual to its environment in an adaptive relation. To the individual, performing a participatory act, an event is good or bad only to the degree that its appearance is judged to be desirable.

An outline of the foundation of the Swedish Model, however, can be achieved only inductively. Internationally, it became known as the "Middle Way" of generating welfare. Associated with it is the notion "consciousness", which from a scientific point of view is complex and consequently ambiguous. Thus the boundary conditions of the Swedish Model can be given only in an approximating style of conduct.

The concept of "Consensus" in the Swedish Model. Two dimensions are of concern. One relates to distributive justice and concerns the delivery of those quantities that people have chosen to consume. The other concerns protection by law of choices people actually make. Assumed is that any freedom of choice exists only insofar as an opportunity exists to decide differently on the levels of consumption. This fact is referring Swedish law that regulates certain aspects of power production and transfer as well as distribution and use of produced energy or power. For its success, decision-making and support have to be oriented toward "equality" and "reciprocity". It means maximal freedom of participation in consumption. But consensus places constraints on the levels. For its success, consensus-formation rests on justice in the distribution of goods and services. Expected is a social welfare

system, which has capacity of keeping the promise of (1) constraining segregation tendencies and (2) increasing the standards of living.

It is worth noting that a classical approach presupposes a unit of measurement and the establishment of life quality in the form of a construct. Based on the conventions of the statistical theory of error estimation, a construct can be measured by attributes that satisfy the axiom of the interval scale. However, both "individual" and "stimuli" have an impact on this scale. One key function in this relation has "stimulus dispersion". The other key function has the individual, because it is expected that the condition for *one* individual is expressed in preference for a certain civilisation or model. But the condition of another individual is expected to generate a different scale position.

It should also be mentioned that (N) participants have to be viewed as producers of qualitatively different classes of a potential number profiles (Coombs, 1964; Bierschenk & Lienert, 1977). The single individual, as a citizen, is making judgements of life quality from time to time. This view is facilitated by an introduction of the concept of "comparted time". In the present context, this measure has generated five different time scales. The judgements on these time scales concern the participant's degree of certainty or magnitude in his relation with the model societies. When both (stimulus and response) are conceptualised as joint distribution, a combination of psychological continua is present.

The rationale for constructing a particular civilisation is represented by means of agreed-upon conceptualisation of rules. Variations from one civilisation to the other concern the perception of those antecedent processes that is leading to the conceived laws. It may be noted that law or rule-following behaviour concentrates on "Competition". "Success", on the other hand, is conceived of as carrier of information on growth, characteristic of a particular civilisation. Consequently, a model-society is defined as a structured combination of active elements of competition and success that are collaborating in response-formation.

Their joint causation at the ecological level can be attributed to the "coenetic variable" of adaptation, which has been identified by Sommerhoff. With an eye on the "focal condition" (Sommerhoff, 1950, p. 60), it means in principle that a set of conditions enters the causal determination of adaptation. At a certain point in time, a response pattern is directively correlated to a given or simulated society. The transformational criterion of judgement is the subsequently occurring event. It constitutes the "focal condition". However, the involved evolution is independent of the effect of a certain event. From a historical point of view, attention and cognitive processing of the single model-society is dependent on parallel causation in ongoing excitations and transformations. In a process of adaptation, the single individual as citizen needs to meet the "demands" of the environment future-oriented.

On the ecological (T^1)-scale is the judgement of "demand" folding. As mentioned, folding concerns five periods of time. Thus, from an ecological point of view, only five different T^1-scales have to be considered. However, pairs of models are determining the bounded equilibration on the evolutionary (T^2)-scale. Only direction is defined experimentally. As far as it concerns evolutionary causation, detection of the "character of evolution" is independent of the existence of a particular model type. To understand the significance of the present strategy, it may be noted that the "character of evolution" of a civilisation was not previously recognised experimentally or theoretically.

Results

Directional change in degree of certainty concerning life quality has been studied on the basis of a series of cross-sectional experiments that has been laid out as longitudinal approach. The specificational aspect of a change in direction has been associated with (-) and (+) signs. All observed changes are given in the summaries of Tables 1and 2. These summaries constitute the basis for the determination of their hyper-ordinal scales. Those scales are similar to ordered metric scales proposed by Coombs (Suppes & Zinnes, 1971).

Table 1.

Eigenvalue: Joint Distribution of Five Intervals

	Order			
T^1	1	2	3	4
1	G-	S-	B+	H+
2	B-	G-	H+	S+
3	B-	H+	G+	S+
4	H+	S+	G+	B+
5	G+	H+	B+	S+

Equilibration Order: (G-B-), (H+G+), (S+B+), and (S+H+).

A unique measure can be obtained that preserves "first" differences by means of a monotone transformation. The quality of the T^2-scale can be indexed by calculating the homogeneity in the transformation. This is estimated on the basis of Loevinger's index of homogeneity (H_t). In the case of Table 1, it is ($H_t = .879$). In passing from the first T^1-scale to the next, all metric magnitudes are arbitrary except for the distance between (B-) and (G+), which is greater than the distance between (H+) and (G+). Guided by a counter-clockwise rotation, the involved transformations have on the T^2-scale generated four boundaries that are parting the distribution into four intervals. This means that the ordinal relation of the T^2-scale has produced a four-step revolution. The pair of adjacent models on the T^2-scale, which have changed place in the next T^1-scale, specify the equilibrium of the T^2-scale, which has been passed.

Table 2.

Visibility of Social Texture: Joint Distribution of Five Intervals

	Order			
T^1	1	2	3	4
1	B-	S-	G+	H+
2	H-	B+	G+	S+
3	H-	B+	S+	G+
4	G+	S+	B+	H+
5	G+	H+	B+	S+

Equilibration Order: (B-H-), (S+G+), (H-G+), and (H+S+).

In correspondence with Loevinger's H_t-index, it is possible to determine the quality of Table 2, which is ($H_t = .539$). This circumstance justifies a separate topological treatment of visibility of social texture as well. It means that its visibility is not treated as temporal sequence of comparted situations, but as a logical sequence of alternatives or hypotheses about social texture. From a topological point of view, it follows that an extracted invariant is independent of the actual succession of temporal variants and contextual encapsulations. Disconnection circumvents confusion of temporal variation with the hypothetical variation embodied in a particular model. Properly presented as logical sequence means that the "genetic fallacy" is circumvented and its basic structure is preserved over changes on the T^2-scale. Moreover it is safe to assume that, the involved biological mechanism is endowed with an ability to change direction in a path through counter-clockwise rotation. On the basis of the achieved transformations, it will be demonstrated that monotonous topographical modelling is a means of treating the development in life quality as "surface" phenomenon.

The Components of Competition and Success

In the study of competition and success, the assumption has been made that competent people have integrated experience with various social systems, which they communicate with a unique perspective. It will be of interest to examine their degree of competitiveness in the development of life quality and to contrast their judgement concerning the mental enforcement these ideas have on communicated ideas about the standards of living.

The competition-success interaction is conceived of as a means of fostering perceptual discrimination. The major assumption made is that the study of these components requires the experimental separation of both. The competition-factor concerns the citizen's ability to obtain sufficient means for making a living. Personal competition operates in assigning the single citizen his place in the social system. It follows that this factor performs the selection function for which at present on other means exist.

The success-factor concerns the ability of the single citizen to relate his special achievements to a given social situation. Consequently, success operates in the determination of personal involvement. However, success and competition are requisites of a sense of justice. An experimental demonstration of it requires an answer to the question of what kind of competence the person has developed and what kind of moral can be discovered. Only their separation can give clues to differences in qualitative behavioural leaps in the development of higher forms of competence.

Each model (M_j) has only one scale position for all conditions of judgement (C_i). It is worth noting that a classical approach presupposes establishment of life quality in the form of a construct that can be measured by observing it as a fixed condition (C_i) or position on a scale of ordinal preference relations. Moreover, each condition can only affect one position for all models. A key function in this relation has the condition of judgement, because it is expected that condition (C_i) for *one* individual is expressed in preference for a certain civilisation or model (M_j). However, the condition of another individual is expected to generate a different scale position. The single individual, as a citizen, is making judgements of life quality from time to time. This view is facilitated by an introduction of the concept of "comparted time". In the present context, this measure has generated five different time scales. The judgements on these time scales concern the participant's degree of certainty or magnitude in the relation ($|M_j - C_i| < (|M_k - C_i|)$, where $j>k$. When both (M_j, C_i) are

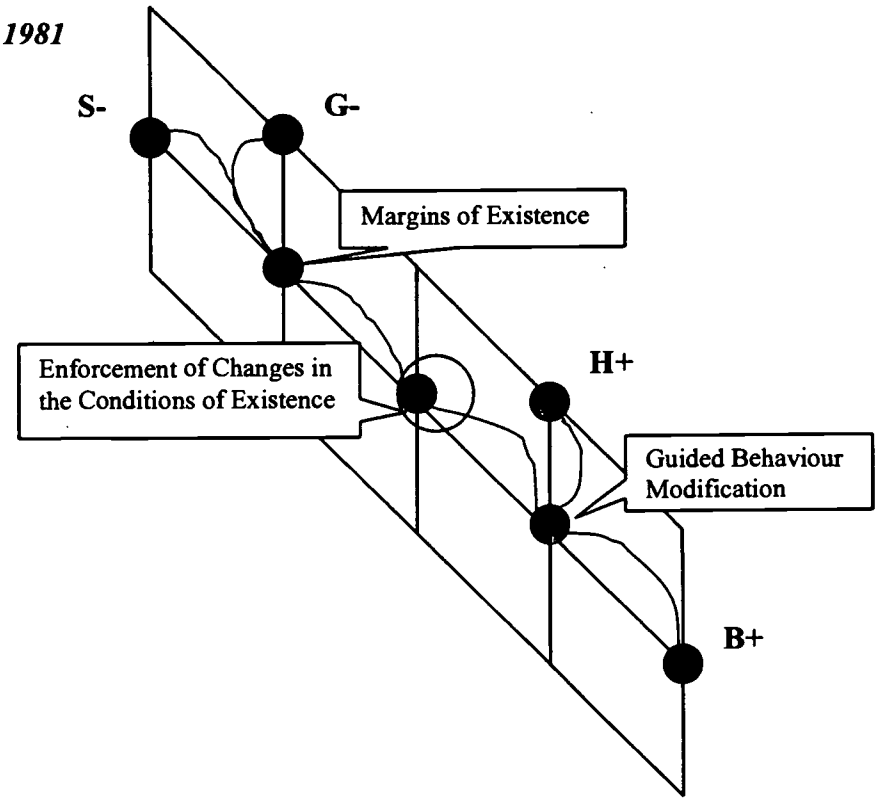
conceptualised as joint distribution, a combination of psychological continua is present.

The Eigen-value Factor

As demonstrated in Figure 1a, concerning the Eigen-value Factor of previously reported studies (Bierschenk, 1997), certain extremely limiting conditions have been imposed on the variability of the positions of (M_j) and (C_i) on the assumed continuum. Similarity in judgement between (G-) and (S-) is based on the joint influence of both energy consumption and environmental pollution. It follows that the boundary conditions of (S-) relate partly to scarcity of oil and natural gas supply, partly to the economic and industrial recession during the 1970s.

Figure 1a.

Holotop of Eigenvalue: Order of Model-Societies in 1981



Thus expressed certainty is connected to special industrial conditions governing growth rates and the particular body of values associated with it. When the process of judgement is passing through this state of limitation the emergence of a singularity can be observed, that gives expression to an achieved synthesis. It refers to the unique rank order, which has been derived from the different sets of judgements, previously reported in Bierschenk (1997). It is immediately apparent, that both models are qualitatively bounded by a singularity. By extracting its overall relation a topological invariant becomes manifest, namely "Margins of Existence". It refers to

possible catastrophic chains of economic events in the near future. It follows that both are identical as to their *order*.

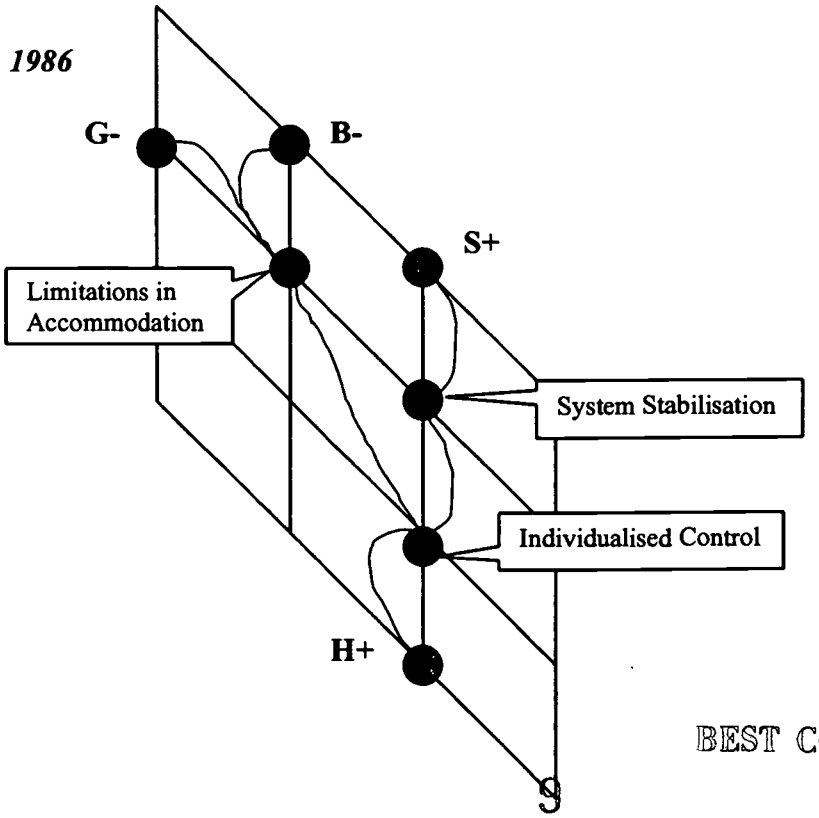
However, for the sake of "the commons" (Hardin, 1968), incongruent system behaviour need to be changed. The way of achieving this aim is indexed with (B+). The Swedish citizen of 1981 is aware of the existence of "government and binding" as instrument for changing the system. However, this preference for extreme manipulation is softened due to (H+). In transiting through this terminal state, an awareness of natural boundaries is present. In going from left to right, the two adjacent models to the right are bounded to another singularity. Approaching nature in a co-operative and mature manner is implied. Expected is the establishment of a dynamic relationship between Government and citizen. It has the function of maintaining "co-operative interaction" whose effect is emerging in the singularity "Guided Behaviour Modification".

To be sure, the prescriptive effect of the counter clockwise rotation is manifested in the realisation of a physical strain in the first emergent and a mental strain in the second emergent. In passing through this second singularity, a transformational effect is achieved, which only can result in "Enforcement of Changes in the Conditions of Existence" Intervention that reliably changes behaviour is transformed into a topological system determinant that is typical of "threshold" conditions. By imposing a certain kind of skill-information, attention is directed toward careful framing and delivery of incentives. Its result is observable on the basis of effectiveness in physical as well as mental system changes. This is the first measured condition of the T^2-scale. It is worth noting that this global singularity cognitively is more deeply embedded, which is symbolised by a duplicated circle.

The source of stress through a globalisation of economy and pollution has generated one horizontal dimension, which is picking up the restrictions to growth associated with existing large-scale production lines in (B, G), as shown in Figure 1b.

Figure 1b.

Holotop of Eigenvalue: Order of Model-Societies in 1986



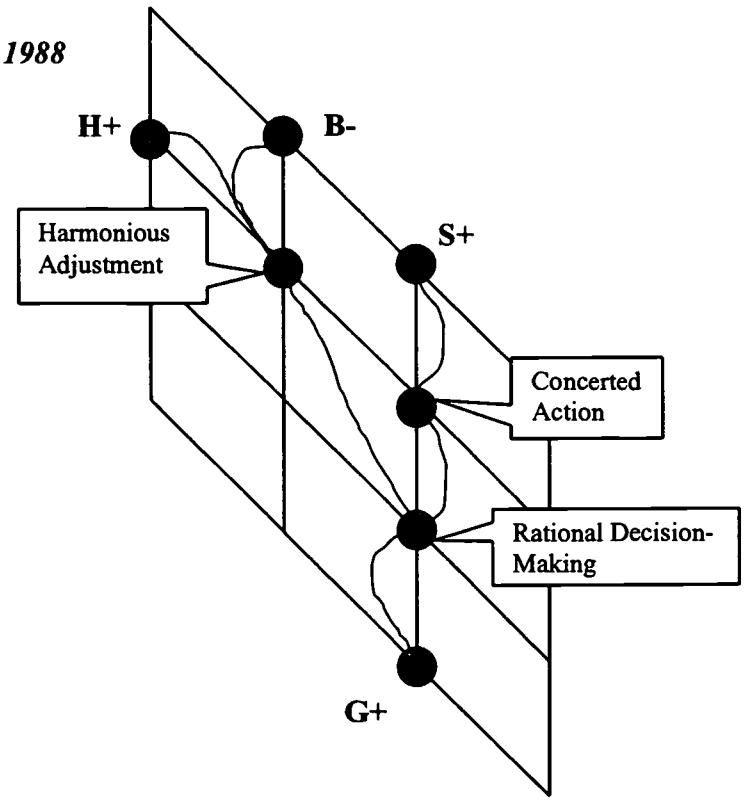
"Limitations in Accommodation" concerns the demand of equal opportunity in sharing goods and services. In contrast, the vertical dimension is contributing with a kind of value adjustment that is supporting reciprocity. The emergent singularities are specifying a perceived need for "individualised control" in the "stabilisation of the system". This is an improvement, which is stretching the citizen's adaptive activity beyond the limits of (B, G). The last singularity is "System Stabilisation", which also is the second condition of import for the establishment of the T^2-scale. Information of observed individual differences have affected the judgement of one's opportunity to choose and to act upon made choices, because the response to diversification determines one's "Survival Potential". Describing the topological determinant is helpful in the depiction of the limits that ultimately define the difference between stable and unstable regimes.

To discuss this terminus with reference to competence, it is necessary to deal with mental processing. The single citizen is generating behaviour and he is judging the adequacy of generated behaviour in the given situation. Thus, the comprehensiveness of this singularity as determinant need to be noticed with respected to the qualities required in the given situation. These qualities are the context-dependent values, because these are governing acquisition or learning. Moreover, mental structures are its product and as such it is determining the single citizen's mental limits.

As shown in Figure 1c, adjustment to environmental values guides and controls the preference judgements of 1988. It is indicative of a state in through which a regime is envisioned that can transform perceived stress into an adaptive relation.

Figure 1c.

Holotop of Eigenvalue: Order of Model-Societies in 1988

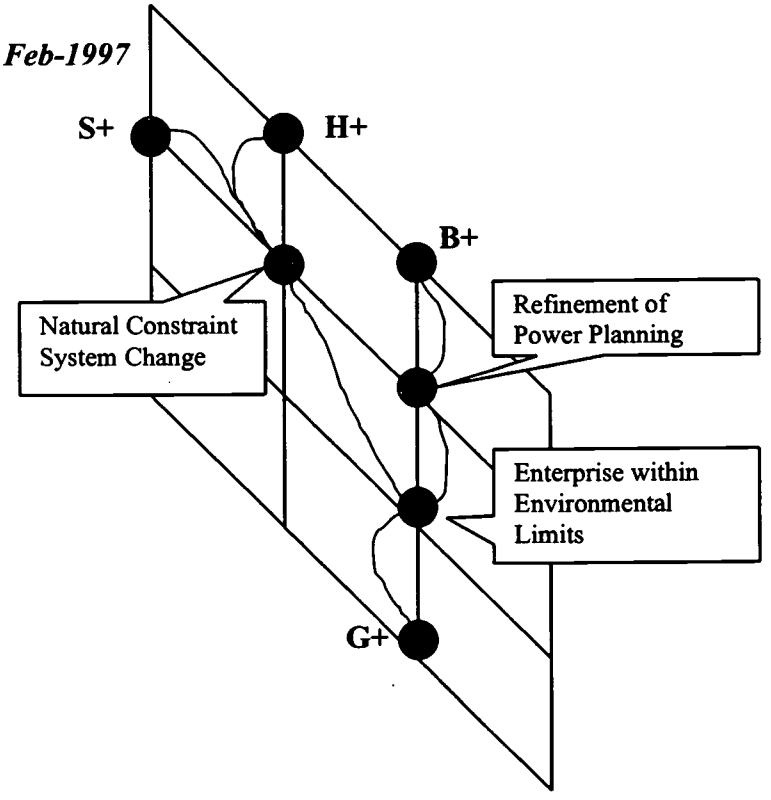


It is indicative of a desire to come to terms with environmental conditions, whose constraining influence has produced the singularity "Harmonious Adjustment". The contrasting dimension, however, is manifesting the need for a strong functional link to "Rational Decision-Making" which is the outcome of an attempt to achieve mastery over various interacting systems. In order to reduce the uncertainties associated with decision-making, conceived fluctuations in the process have produced the singularity "Concerted Action". This is the third condition of the T^2-scale and marks the state of functional grouping as a more advance condition of production. This topological invariant determines the basis for a course of action that is made dependent on the incorporation of the single citizen in the policy-making process. Its common ground is the reduction of natural occurring uncertainties in decision-making by means of an increase in the reliability of the behaviour of its ensembles. In this view, uncertainty means fluctuations in the processes of production, which are controlled by the operations grouping.

As shown in Figure 1d, the transformational contribution of the judgements of Feb-1997 is the singularity "Natural Constraint System Change" as a measure of safeguarding life quality.

Figure 1d.

Holotop of Eigenvalue: Order of Model-Societies in Feb-1997



This specifies certain limits within which economic activity can be carried out. The contrasting dimension gives expression to a need of production and industrial

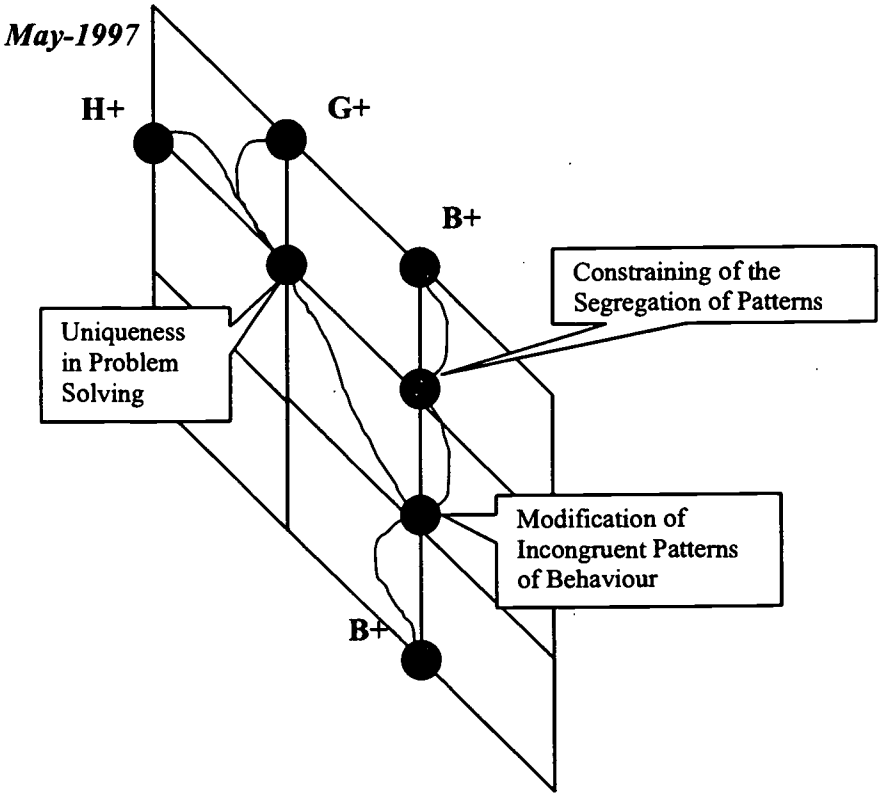
development, however, within certain limits. The requirement is a change in the industrial programs and control of price development, because these are intimately connected to changes in the production of raw materials. Needed changes in the programs presuppose the enforcement of technological changes which has produced the singularity " Refinement of Power Planning". This is the fourth condition that specifies the path of the process that is generating the T^2-scale.

It is indicative the condition of the implementation of new patterns of behaviour that are congruent with new technologies, This requires "reward". Performance or achievement is made dependent on motivational variables and incentives. This view is congruent with achieved grades in the scholastic situation. When achieved grades in school are used as predictors of occupational success, it is not too difficult to achieve positive correlation with salary, promotion rate or supervisory ratings, because they are typical expressions for performance.

However, a new course of action will work with the desired effect only if it leads to the replacement of malpractice. Being able to function effectively, enforcement and control of a system has to transform into a striking push on the market. In Figure 1e, the emergent singularity is a manifestation of the transformational effect that this policy has on the suggest structure.

Figure 1e.

Holotop of Eigenvalue: Order of Model-Societies in May-1997



"Uniqueness in Problem Solving" is the result of a process in which differentiation and integration is progressive. In contrast, the vertical dimension

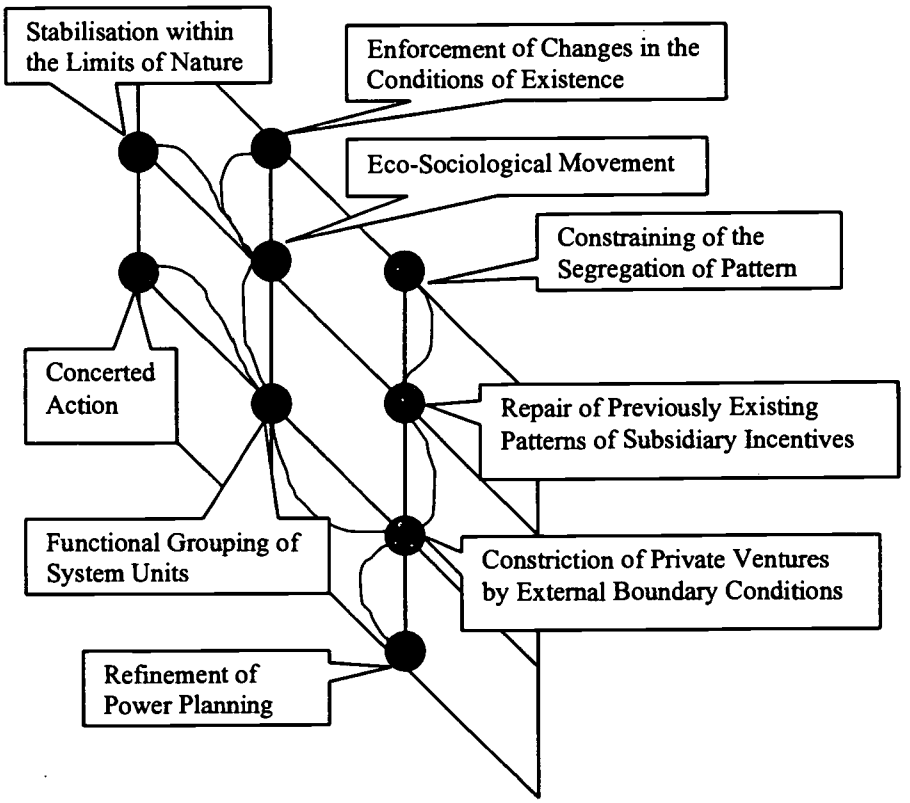
suggests an orientation toward cue sensitivity and "Modification of Incongruent Pattern of Behaviour". This implies an awareness of behavioural management by the familiar principles of reinforcement and reward. These allow behavioural control and cognitive activity that is sensitive to social as well as to environmental base conditions. The final singularity "Constraining of the Segregation of Patterns" is also the fifth condition of the T^2-scale. It has emerged as the result of sensitivity toward a need of developing production in close association.

Over an above what may be called routine actions, it marks the condition that effectivity may be equated with a citizen's potential of controlling his associates or fellow citizens. Reactive forces are activated by a process, through which unacceptable feelings are transformed in agreement with an "authorised" plan or schedule. The state of being agreed and in concord with an approved strategy of action is the binding state. The reciprocal effect of streamlining pattern organisation makes segregation unlikely so that increased "power concentration" will show growth in performance.

Figure 1f is the result of a topographical approach, which has the capacity of establishing the T^2-scale. This is achieved on the basis of singularities that specify the first and second vertical dimension of Figure 1f. In a strict sense, an infinite potential of scales, which can be characterised by various groups of numerical transformations (2^n +1), but "most of them are not of any real empirical significance" Suppes & Zinnes, 1971, p. 46). However, there is only one unique order. This order is discoverable on the basis of the terminal states (models).

Figure 1f.

Holotop of Eigenvalue: Order of Model-Societies over Time



In following their order upward implies that the pairs on any particular horizontal dimension give the marks on the ecological scale. In going from left to right and upward in progressively ascending manner the T^2-scale can be folded. As shown in Figure 1f, a transformation of a change in one's living conditions by means of a stabilising approach provides for the emergence of a global singularity.
This is the first step on the first vertical dimension of Figure 1f, which manifests "consensus" in development. For its success, consensus formation depends on perceived justice in the distribution of rights and duties. It follows that "welfare" of others requires a "morality of contract" (Mancuso & Sarbin, 1976).

A felt need of functional contextualisation is the power produced by the emergence of this singularity. However, in passing the next terminal state this fact is transformed. In the transformed shape, it means respect for the utilitarian's choice of reducing uncertainty in the estimation of needed supply. Simply, life quality is dependent on the ratification of private orderings.
Thus, joint causation of consensus formation and rule-following conduct has produced the other singularity defining the first dimension. Thus, a major transformational step is observable in that "consensus" is placing constraints on needed reorganisation.

The other dimension concerns monitoring control over functional grouping. In an attempt of achieving monitoring control over interests that various agents and agencies can have in system changes and the direction of growth, "Refined Power Planning" is emerging as the first invariant of the second vertical dimension. With this invariant in mind, it can be stated that justice implies social validation of new strategies of production. This can only mean monitored success.

The other singularity on this dimension implies that monitoring through instrumental conditioning is the superior method for achieving success through co-operative activity. Moreover, emerging from the final transition is the expectancy of a single valued process. From a psychological view, the correct response is conceptualised as sensitivity to base line conditions. The implication of this transitional step is the demand of a high degree in guaranteed welfare. High-level safekeeping is comprehended as freedom from danger and the hazards of life.

The folded T^2-scale. The notion that the behaviour of the Swedish citizen is externally regulated is amply documented through the recovered scale. However, this result may not be received enthusiastically. The first step on the evolutionary scale concerns instrumental behaviour, which comprises all kinds of moves the individual carries out for the purpose of creating a change in his relation with the environment. The following two steps are addressing the modelling of behavioural change through the functional grouping. This measure is expected to have a modelling and thus guiding effect for appropriate performance. External boundary conditions are directing selective attention. Constriction of private ventures is made dependent on rule-governed behaviour. The final step involves the reinforcement of responses that are successively closer to the prescribed or desired behaviour. This step gives evidence to a systematic approach in the manipulation of socially acceptable behaviour.

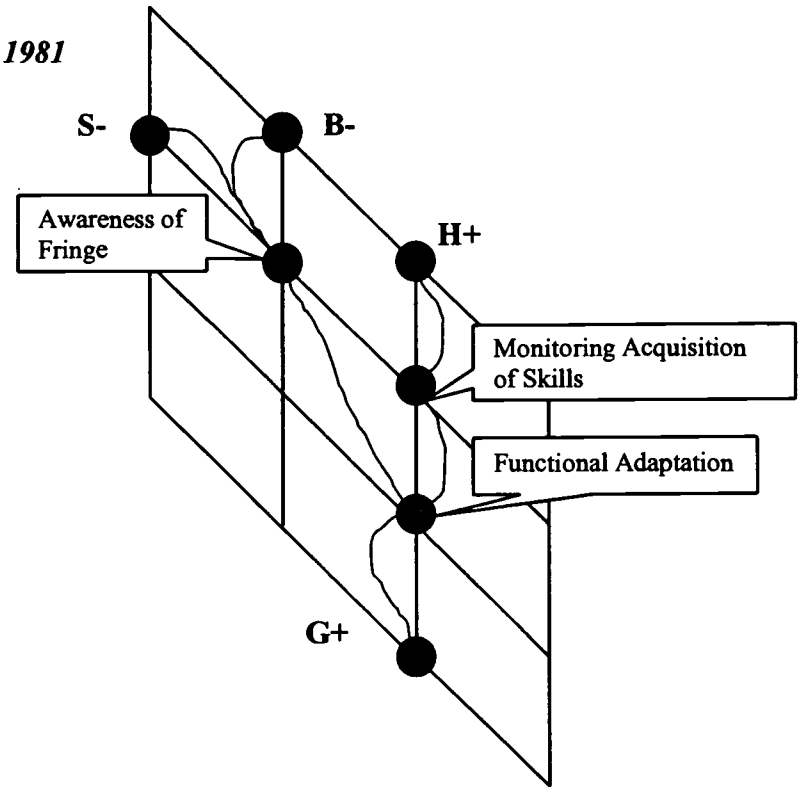
The Factor of Visibility of Social Texture

It is obviously a property of (B-) that its citizens are conceived of as having only marginal possibility to compete in the development of their standards of living. Economical and cultural conditions are subjected to severe restrictions. This means that "consensus" places constraints on one's possibility to select alternative ways of making a living. As shown in Figure 2a, passing through the terminal state of (S-) as

similar condition is established, because the consensus relation places constricting boundaries on the citizen's possibility to increase is knowledge.

Figure 2a.

Holotop of the Visibility of Social Texture: Order of Model-Societies in 1981

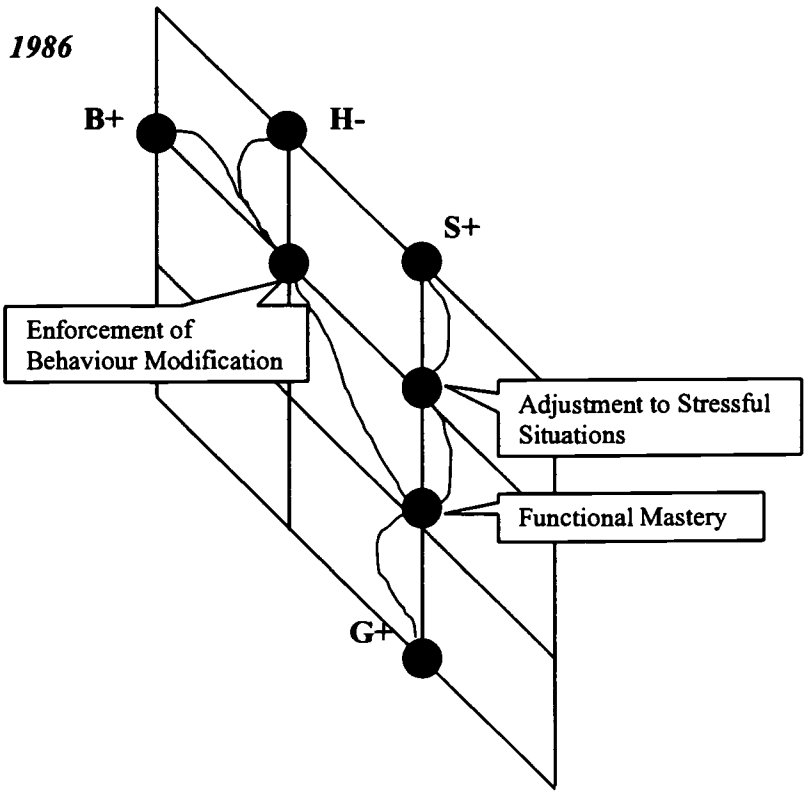


However, respecting one's choice implies the acceptance of the utilitarian's understanding of justice. It builds on the principle of distributive justice and concerns the delivery of those quantities that people have chosen to consume. It follows that "welfare" of others requires contract morality". A felt need of functional contextualisation consequently is the attractor produced by the process when it passes through the state of (G+). Furthermore, it is obviously agreed upon the fact that the citizen needs guidance in his acquisition of needed skills. It is conceived of as a means of becoming aware of natural boundary conditions. That the process is passing through (H+) is indicative of the understanding that nature must be approached in a mature and consequently co-operative manner.

As shown in Figure 2b, a system, prescribing the citizen's manoeuvre space is acceptable to the degree that it provides active guidance. The process in the state of (H-) is constrained by imposition of limits on the adaptive activity of the individual. By associating the citizen's awareness of consensus obligations, a condition is conceived, which makes evident that severe stress is produced through the envisioned equality and reciprocity. As indicated by (B+) this can only mean instrumental conditioning. Attendance to this kind of influence implies acceptance of a controlling authority that is combining demands on skills and knowledge.

Figure 2b.

Holotop of the Visibility of Social Texture: Order of Model-Societies in 1986



As indicated by the emergent singularity "Enforcement of Behaviour Modification" implies the technique of "shaping" responses that become successively closer to the prescribed or desired behaviour. Finding effective strategies for the initiation of behavioural change, means finding powerful incentives, which can carry the process toward efficiency. At the level of the involved (G+) judgement, policy-formation concerning consumption requires a program and control of the implementation of new technologies and new patterns of behaviour. Conceived this way, a need for "reward" of the acquisition of skills is apparent. The emergent singularity gives expression for an equilibration that is manifested in the Terminus "Functional Mastery".

The kind of transformation that is involving (S+) directs the process toward "sensible" exercise of "Sovereignty". Envisioned is control that is manifesting itself in equality in sharing products and services. Equality in the possibility of consumption seems to be conceived of as the way of "Adjustment to Stressful Situations". New strategies of consumption are obviously requiring a law that regulates freedom of choice. The promotion of "welfare" entails rule following behaviour and social validation. The possibility of circumventing "anxiety causing events" through these measures is expressed in the emergent singularity.

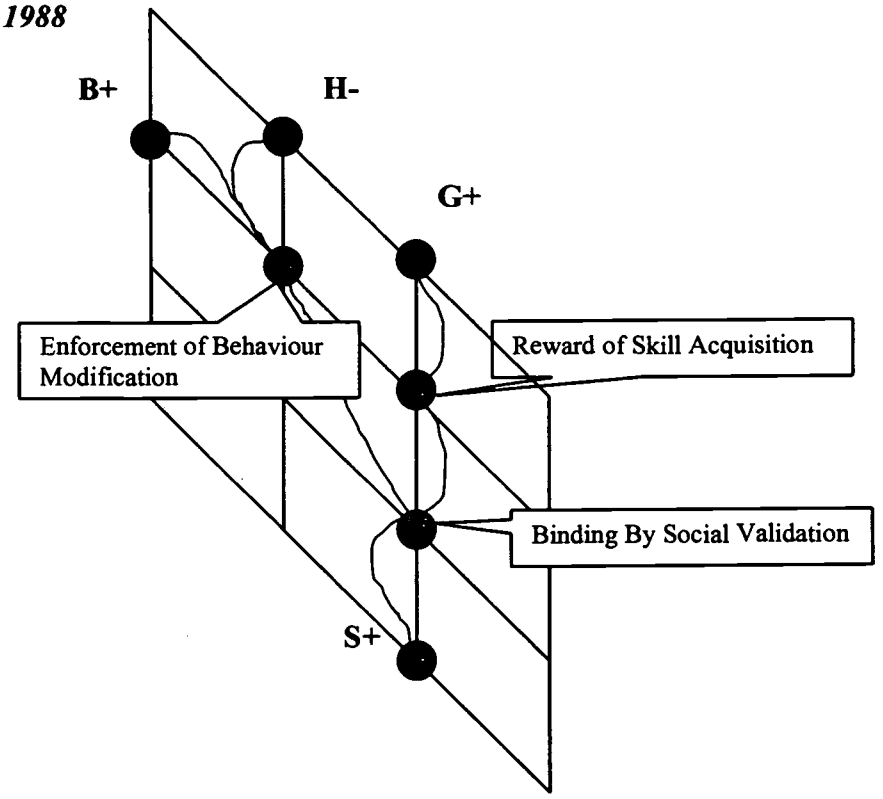
What is evolving is a dimension that is picking up a mental transformation toward perceived possibilities of effective transaction with the environment. Thus, the focus is on a new adaptive capacity that must be formed in epigenetic fashion in order to maintain one's mental adjustment and ensure survival potential. A shift of

perception away from societal disorder and toward the promotion of a cognitive shift is apparent. Indeed, this transformational shift shows development toward coping with stressful life events. Moreover, this dimension is suggesting that competition is more than the acquisition of a variety of cognitive, social and behavioural skills for coping. The citizen must also enable himself mentally to function in social and physical settings that are advantageous to the development of those strategies.

Contextualisation of oneself indicates an insight into the necessity of overcoming competence deficits. As shown in Figure 2c, what is particular of the judgements made in 1988, is a focus on the formation of power strategies. Associated with it is a special warrantee in form of "social validation".

Figure 2c.

Holotop of the Visibility of Social Texture: Order of Model-Societies in 1988



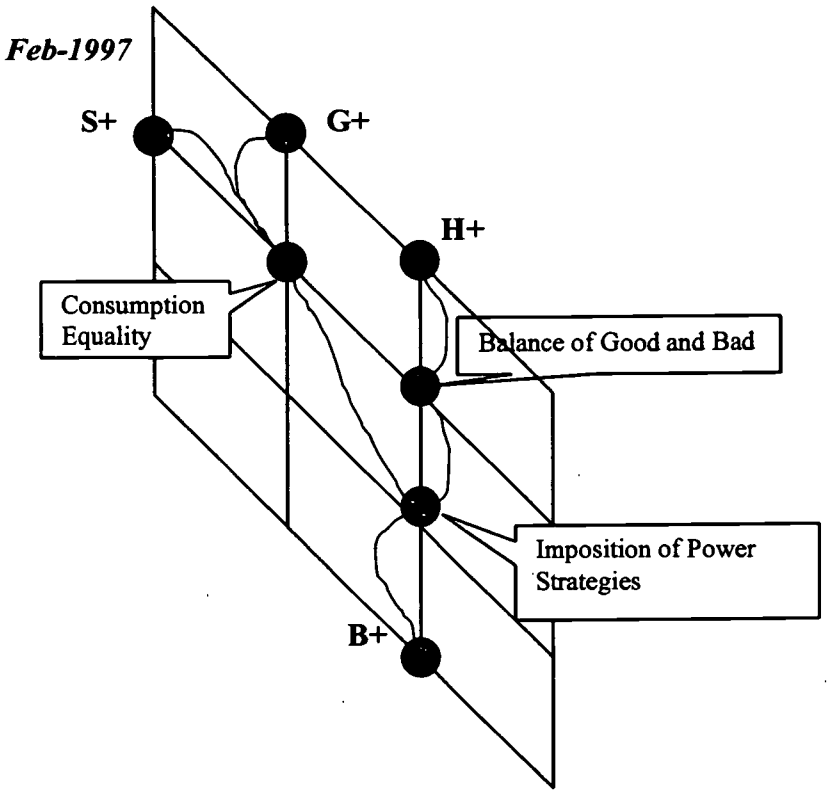
The evolving singularity "Binding by Social Validation" is making the point, that Public morality as binding force makes sense only against a legal background. From this point of view, the right way of sub-ordination means binding under legal obligations. This is the major premise of 1988, because the final singularity "Reward of Skill Acquisition" is manifesting the legal validation of the citizen's actions. Government is anticipated to accept voluntarily what behaviourally has been established. Otherwise no special law would be required for maintaining a stable regime.

The vertical dimension shows a need for the anchorage of co-operation in the formal system of authority and reputation. In focus is the obvious and unitary interest of fixing unequivocal the limits of co-operation.

From a psychological point of view, Figure 2d marks conceptualised sensitivity as discriminatory response to the base line conditions of (G+). The implication of this specification of certain limits is associated with (S+) and concerns administration. It is expected that Government guarantees fair treatment, which means that it must equalise its citizens' opportunity of choice. The first emergent singularity "Consumption Equality" is a coherent expression of perceived cultural, social and personal forces that define one's economic reality.

Figure 2d.

Holotop of the Visibility of Social Texture: Order of Model-Societies in Feb-1997



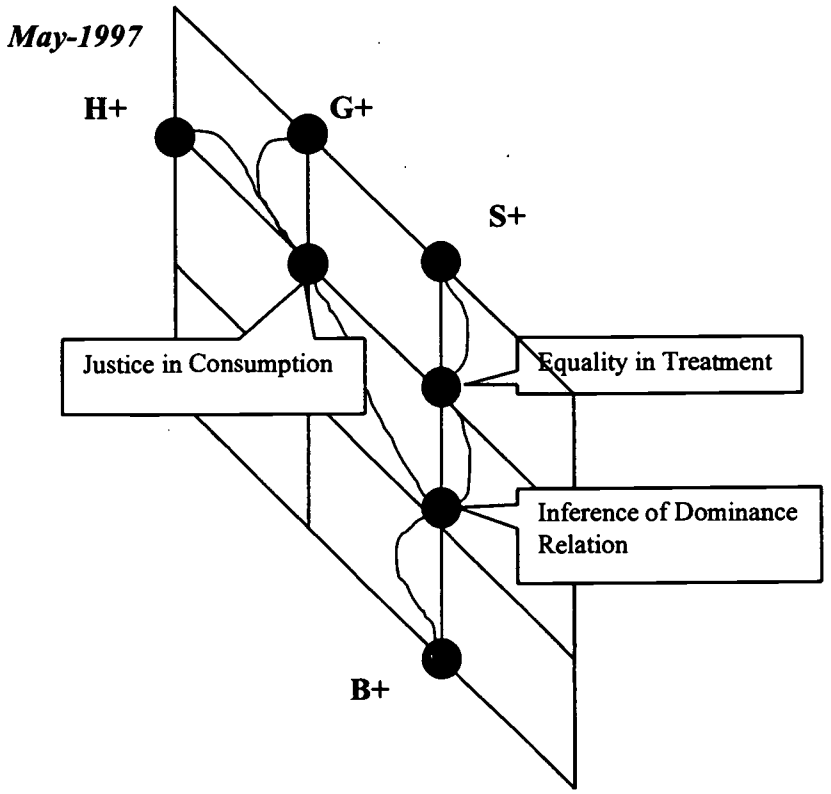
In monitoring the impact of economic factors at the organisational level, the orientational dimension of Figure 2d gives expression to a behavioural framing, which is anchored in (B+). It follows that manipulation of system change is conceived of as an activity that is carried out in agreement with already known effects of economic and social transfer mechanisms. The first singularity of this dimension suggests that the informative cues have oriented the process toward an awareness of the "Imposition of Power Strategies". It is an expression of management, perceived as processing on familiar organisational principles. However, it is important to note that violations of consensus through utility considerations, also require a certain measure of safeguarding. This in turn implies a specification of certain limits concerning

equilibration in relation to required system change and economic reality. Thus, the vertical dimension gives expression to a justification of new relations rather than to the determination whether or not organisational changes are justified. However, consumer's policy is placing a demand on Government, which means the formulation of a new course of action that results in a "Balance of Good and Bad".

A focus on "justice in Consumption" is introduced by means of Figure 2e. It implies thinking in terms of "solidity" and concentrates on the instrumental aspect of consumption as a means that facilitates the creation of equality.

Figure 2e.

Holotop of the Visibility of Social Texture: Order of Model-Societies in May-1997

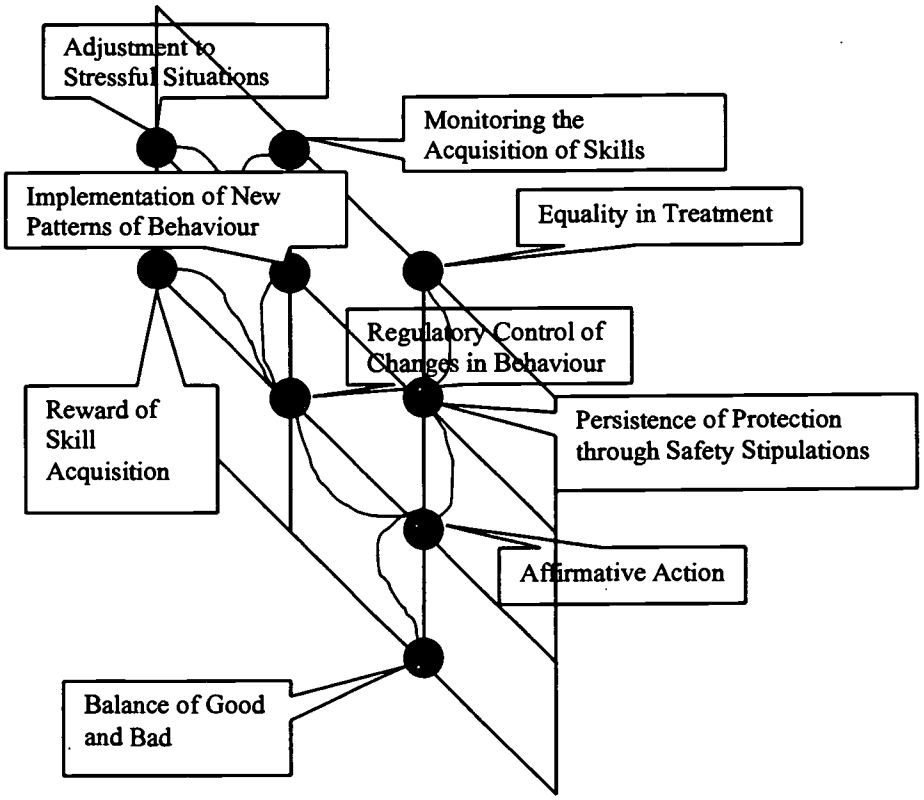


At the policy level, this singularity gives expression to a constraint of the single citizen's possibility of consuming goods and services. Accordingly, the core of consensus is a promise of justice. Consequently, equal opportunity in consumption is dependent on envisioned exercise of "Sovereignty. This promise is based on the orientational dimension. The utilitarian's policy is followed in the distribution of rights and duties, which is the accentuated condition of the Swedish model. Expansion of the operational phase is made dependent on operations over all organisational levels in order to overcome behavioural deficiencies. This objective is accomplished by means of "study circles". Enlightenment and educational processes are initiated and desired with the aim of shaping "authorised" behavioural alternatives. Detailed tactics have to be accomplished which will need "reinforcement", to be controlled by behavioural contingencies.

Inherent in the equilibration of the diversity at the ecological level is the orientation toward sensitivity with respect to the behavioural value system. As shown in Figure 2f, manifested is a requirement of equality.

Figure 2f.

Holotop of Visibility of Social Texture: Order of Model-Societies over Time



The conditions presented on the two horizontal dimensions are determinative of a context in which the single citizen has minimal opportunity of effecting the mechanisms of selection. Accordingly, environmental adaptation is achieved on the basis of a utility (= behaviour) function. The major determinant is a body of consensus on the values as represented by some authority that is limiting one's choice of actions.

On the two vertical dimensions are conditions manifest, that are addressing strategies on the basis of which subtle measures of reliability control are developed. Attention is given to the exercise of power, which is formally expressed in acceptance of a course of action that defines and enforces these power relations.

The evolving T^2- scale is folding a trust in incentives as a means of making visible the effects of competition. Sufficiency in the implementation of new patterns of behaviour involves management that promotes individual efficiency and concentration of attention on its manifestation in the form of technological choices that can be made under given environmental conditions. Thus regulatory control of changes in behaviour concerns grading of incentives as a means of getting improved technologies accepted through changed consumer behaviour. Prompting in the form of affirmative actions is the mode of control, that is compatible with the judged gains of

technological development. In effect prompting is a form of investment that transforms the strategic outcome of competition in combination with persistence on protection through safety stipulations. The expected result is an industrial strengthening that in effect is a kind of constructive patterning.

Discussion

One natural consequence of measuring certainty in judgement of life quality is associated with its relation to some important problems of measurement. One concerns the estimation of true scores and their distribution over time. Specific time related processes such as style of response, historical variations or variations in the selection of participants all contribute to a contamination of their distribution. Another problem relates to the assumptions concerning the probability of a "correct" response. However, when the original set of observations must be conceived of as "error-free", it is difficult to defend the application of models for an estimation of error variance. This line of reasoning has in the present context liberated scaling from the classical assumptions about the functional form of underlying continuous true scores.

Consequently, the proposed topometric approach, as developed in the present article, has made it possible to discern the kind of relations that are characteristic of the original observations of perceptual processing and judgement of life quality. Associated with it is a certain degree of novelty, because it is unfolding the metric relations in a non-orthodox way. Thus, the developed scaling secures a metric that is isomorphic with dimensions underlying the original data set.

Essential for the completion of this study has been the ordering of the model-societies on joint continua. These are qualitative scales, which has no need for a unit of measurement. Instead, the process of judgement has been related to a clocking mode of organisation. It means that the time-factor has been instrumental in the formation of the behavioural expression of competition and success. With more information having become available it is now apparent that two scales are contained in the material that are consistent with the way in which the habit of a particular civilisation develops. Behavioural habits, specific of a certain society, free the single citizen from the necessity of orienting himself every time an event of a certain kind occurs. Though, the behavioural formation of modal action patterns need not imply any loss of flexibility, incisiveness or sensitivity. Instead what is accomplished is the establishment of a behavioural model that effectively and economically deals with a way of acting within an information rich environment.

Thus, inherent in the equilibration is an orientation toward a repair of previously existing patterns of subsidiary incentives. Sensitivity with respect to a need for persistence in the protection through safety stipulations requires governmental readiness, especially during periods of crises or occurring steeps in the economy that put the citizen under severe stress.

With an orientation toward civilisation, it is worth noting the fact that the intention of survival now implies a focus of the nature of "fear" of a "steep" in the economy. In agreement with this view, sensitivity to "height" is seen to depend on the function of equality and reciprocity. The steep has to be in proportion to one's competence of overcoming inequality. Thus, it is a natural clue to danger in relation to made technical and financial investments. No doubt, one governing criterion for this has been their subordination in relation to developmental maturation. What is valued

and validated socially is justice and respect for the single citizen and his degree of maturation.

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Author Note

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Correspondence concerning this article should be addressed to Bernhard Bierschenk at the Copenhagen Competence Research Centre, Copenhagen University, Njalsgade 88, Dk-2300 Copenhagen S, Denmark. Electronic mail may be sent via Internet to BERNHARD@axp.psl.ku.dk.