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Governance through Metaphor

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INTRODUCTION

The experience of the past decades in designing and implementing international development-related strategies and governing the process through which they become possible is not especially encouraging. Major disaster has been averted but the early hopes are far from being fulfilled. The situation has become worse for many and the risks of major disaster have increased for everyone. Particularly tragic is the recognition that the international system of institutions is defective in its management of the development process, riddled with inefficiencies and lacking in credibility, especially in the eye of public opinion. This situation has just recently been officially documented for the first time for the United Nations system by Maurice Bertrand of the Joint Inspection Unit (1). It is within the constraints of this context that the economic aspects of human development need to be considered.

This paper follows earlier work on the challenges of collective comprehension of appropriateness and the special constraints it imposes on the design and implementation of any development initiative (2). The paper addressed the resulting challenges for "governance". This term has been resuscitated by John Fobes, former Deputy Director-General of UNESCO, in order to promote a reconceptualization of the commonly used terms "governing" and "government". In recent remarks to a Club of Rome conference he states:

"The concept of governance emphasizes that order in society is created and maintained by a spectrum of institutions, only one of which is known as government. By examining that spectrum at all levels of society, we can obtain a broader sense of "governability" as it is exercised in policy-making, in providing services and the application of law. Order is certainly part of governance. But I believe that one should also consider governance, at least at the international level, as a global learning exercise. By so doing, politicians, practitioners, activists and academics may expand their thinking beyond the traditional concepts of government, of international organizations and of the exercise of sovereignty".
(3)

Those remarks have contributed to the initiation of a multi-year project on the future of world governance, distinct from the many previous initiatives focussing on world government.

Of special value in Fobes' remarks is his creative response to the complexities of the situation. He recognizes that the processes of governance have become increasingly complex and are no longer strictly limited to governments. He points out that the fact that so many individuals and groups, whether NGO's or IGO's, at all levels, want to "get into the act" of learning, if not governing, is both hopeful and chaotic. It is for this reason that he points to the need to re-examine attitudes to different "learning modes". *"Learning, and learning to "govern", or to participate in governance, on the part of citizens and their civic and special interest groups, have become part of the survival skills for nations and for humanity as a whole."* (3)

The focus in this paper on the use of metaphor in governance is one response to the recognition articulated by Fobes that: *"The stresses from social change that require a broader sense of governance have called into play Ashby's "law of requisite variety" (which may be interpreted as stating that "the regulators or governors of a system must reflect the variety in that system in order to be of service to it.)"*

The question explored here is that of the need to provide a sufficiently rich medium for the communication of complex insights in a world in which the possibilities of governance are constrained by the explanations and proposals that can be made meaningful to public opinion. The complexity of econometric and global models in their present form make it improbable that they can be of any significance to those who must justify their actions to public opinion.

II CONTEMPORARY CRISIS OF GOVERNANCE

Clusters of dilemmas

This section endeavours to order the principal factors contributing to the contemporary crisis of governance. Such factors may be clustered in different ways. The number of such clusters it is useful to select is partially determined by the following constraints, as explored in earlier papers (4):

- too few clusters, and the set either omits significant factors or these are too implicit in the clusters actually selected, thus increasing their ambiguity and diminishing their operational relevance, however appropriate the simplicity may appear for communication and decision-making purposes;
- too many clusters, and the number of explicit factors, especially for purposes of communication and learning, exceeds the limit on the processing power of the brain (namely seven plus minus one), without having to be re-clustered.

In order therefore to maximize the number of explicit factors identified as contributing to the crisis of governance the following eight clusters have been isolated:

(a) **Simplicity:** Governance, to be feasible, requires that the number of factors or issues on which a mandate is sought, or for which policies must be developed, should be limited in number and defined simply enough to be meaningful. They should be interesting rather than boring. Failing this the preoccupations of governance lose their focus, and the governing body becomes vulnerable to loss of its mandate in favour of some other coalition whose focus is appropriately simple. Conventional strategies in response to this dilemma include:

- only focussing on those issues which through their identification can conveniently come to be perceived as important as the result of a self-fulfilling process;
- only focussing on a few macro-issues which lend themselves to a multiplicity of simple descriptions, whilst failing to encompass their inherent complexity.

(b) **Complexity:** Governance, to be practical, must necessarily deal with the complexities and crises of the real world, whether or not they lend themselves to any meaningful ordering or pattern of mandates for specialized agencies. Failing this governance is overwhelmed by the many pressures of the moment and becomes vulnerable to loss of its mandate in favour of some other coalition that can deal with them. Conventional strategies in response to complexity and the associated information overload include:

- elaboration of an array of administrative procedures, plus filtering and delaying mechanisms for every conceivable circumstance;
- displacement of new issues and pressures by other issues and pressures for which procedural responses already exist.

(c) **Requisite variety:** Governance, in order to be able to exert some long-term degree of control over the dynamics of society, must itself be sufficiently varied in its policy-making capacity to respond to the variety of issues which may emerge. Failing this the governing body is caught off-balance by the dynamics of the society and is vulnerable to loss of its mandate in favour of some appropriately dynamic coalition. Conventional strategies in response to this challenge include:

- emphasis on short-term issues and programmes to disguise any lack of ability to handle long-term trends;
- emphasis on publicizing long-term projects, whilst disguising the degree to which they themselves will aggravate other problems for which no remedy has been envisaged.

(d) **Operational relevance:** Governance, in order to be credible to those mandating it, must be able to formulate its policies in a form which is readily implementable, especially in

response to issues which call for immediate action. Failing this the governing body is perceived as irrelevant to the solution of pressing issues and is vulnerable to loss of its mandate in favour of some more practical coalition. Conventional strategies in response to this requirement include:

- emphasis on short-term remedial programmes, irrespective of whether these effectively respond to the problem which evoked their creation;
- focussing attention away from the more obvious solution onto the necessity for some alternative programme of effective remedial action (for which an appropriate mandate may not be obtainable).

(e) Complementarity: Governance, in order to attract support from a plurality of unrelated (or even mutually hostile) sectors, must be able to configure those sectors into a pattern such that they appear as complementary to one another. Failure of the governing body to establish such a context, or community of interest, leads to fragmentation and erosion of its support, rendering it vulnerable to any coalition of wider appeal. Conventional strategies in response to this requirement include:

- promotion of superficial consensus in such a way as to disguise irreconcilable differences between sectors;
- cultivation of distinct communications with each sector, concealing any contradictions between the undertakings made.

(f) Difference: Governance, in order to respond effectively to disagreement, critical opposition and alternative insights, must develop some means of dealing with incommensurable positions. Failure of the governing body to develop such skills makes any form of co-existence with its opponents unstable and renders it highly vulnerable to attack. Conventional strategies in response to such differences include:

- disparagement, neutralization or suppression of any dissidence (possibly through judicious manipulation of information), implicitly denying any merit in such viewpoints;
- efforts to persuade the dissident group to modify its position or to coopt its members.

(g) Containment: Governance, to be able to maintain its domain of influence, must reinforce a certain order within definable boundaries. Failure of the governing body to do so results in an open system vulnerable to the effects of uncontrollable variations in external influences. Conventional strategies in response to this requirement include:

- strengthening of boundaries and gate-keeping functions, justified by the necessity of excluding "undesirable" influences;
- limiting freedom of action in order to facilitate the maintenance of the favoured order.

(h) Empowerment: Governance, to be able to encourage the growth and development expected by those who mandate it, must be able to empower people and groups to undertake and sustain new initiatives of their own accord. Failure of the governing body to do so results in stagnation and disaffection rendering it vulnerable to replacement by a coalition encouraging such initiative. Conventional strategies in response to this requirement include:

- mobilization of people and groups in support of some defined programme, irrespective of the initiatives they would otherwise choose to take;
- manipulation, subversion or cooptation of initiatives if they achieve any degree of social significance.

Fourfold principle of uncertainty in governance

As argued elsewhere (5), especially in the light of epistemological problems in the social sciences which suggest that a generalized Heizenberg principle operates in the social sciences (6), the dilemmas of the previous section could well be summarized in a four-fold principle of uncertainty as follows:

- (a) A governing mode in which it is easy to say "no" overtly, makes it very difficult to say "yes" except covertly, whereas one in which it is easy to say "yes" overtly makes it very difficult to say "no" except covertly.
- (b) A governing mode which encourages overt declarations of consensus has great difficulty in accepting fundamental differences in practice except covertly, whereas one in which differences are realistically accepted has great difficulty in establishing consensus except covertly.
- (c) A governing mode of requisite variety for long-term continuity has great difficulty in elaborating appropriate short-term programmes except covertly, whereas one in which operationally relevant short-term programmes are easily elaborated has great difficulty in ensuring any policy of long-term significance except covertly.
- (d) A governing mode which can be made meaningful and inspiring has great difficulty in taking into account the full complexity of a practical situation except covertly, whereas one which takes into account that complexity in all its operational detail cannot be meaningful and inspiring except covertly.

Use of the terms "overt" and "covert" could be considered as unnecessarily value-loaded. Alternatives might be "formal" and "informal" or else "public" and "private".

The merit of using "covert" is that it emphasizes the potential for procedural abuse and manipulative processes in certain situations, namely insidious corruption. These points are perhaps well illustrated by the difference between the overt processes in international organizations and those occurring behind the scenes (and covered by security clauses in employment contacts).

Whilst there is much overt discussion of the efficiencies in the overt processes (as in the recent reviews of the United Nations and UNESCO), the dysfunctional features of the covert processes are only discussed in corridor gossip and newsworthy exposés. There has never been any overt study by an international body of corruption in governance at all levels, and especially of corruption in such international bodies. Yet "corruption" is frequently cited in informal reports as a cause of inefficiencies in the implementation of programmes.

This paper is not about corruption but about the inability to fully encompass conceptually the processes of governance in an adequate model or set of models. This results in grey areas in which dysfunctional processes proliferate, however carefully the overt processes are defined. These are the shadow side of governance. Any attempt to envisage new approaches to governance that neglects this dimension, or fails to come to terms with it, must necessarily fall victim to the ways in which it undermines effectiveness.

Tools of Governance

In the fluid situation indicated above, the process of governance is based on the use of a spectrum of tools. These may be usefully clustered for comparison in Figure 1 in terms of the dilemmas noted above.

From the table it is clear that no single tool permits a satisfactory response to all the dilemmas. Just as: "It is true that you may fool all the people some of the time; you can even fool some of the people all of the time; but you can't fool all of the people all the time" (Abraham Lincoln), so governance should not fool itself. Governance can rely on all those tools

Figure 1

	Slogans (symbols)	Sets of procedures	Strategy (policy)
Simplicity	Focus attention effectively	Can be made very simple (but may then be quite meaningless)	Simplest may be best for short-term but inadequate for
Complexity	Distort dimensions of any situation	Can be multiplied to handle every circumstance	Inadequate beyond a certain degree of complexity
Requisite variety	Reflect variety only through ambiguity	Respect variety only through mutual inconsistency	May be designed to respect variety
Operational relevance	Avoid practical dimensions	Operationally relevant until circumstances change	Difficult to ensure operational relevance, especially when complex
Complementarity	Disguise complementarity under token consensus	Complementarity respected implicitly (if at all) rather than through design	Difficult to design complementarity into an effective strategy
Differences	Exaggerate or reinforce differences uncreatively	Inapplicable in case of fundamental differences	Viable in responding to differences but not in embodying them
Containment	Reinforce boundaries (possibly to excess)	Reinforce boundaries (possibly to excess)	Effective in reinforcing boundaries (possibly to excess)
Empowerment	Effective until counter-productive through abuse	Usually demotivating rather than empowering	Difficult to ensure empowerment through centrally-formulated strategies without emergence of disorder

some of the time, on some of those tools all the time, but cannot rely on all of the tools all the time.

Each of the tools has strength and weaknesses which are highlighted differently by the different dilemmas. The fluidity of the situation brings out the point that whilst governance may rely on those tools, it cannot be wholly identified with them. The fundamental challenge of governance would appear to be in the art of when to rely on which combination of tools, and for how long.

Sustaining development: the epistemological challenge of governance

Sustainable development is usually conceived as a problem of instrumentality - namely deploying the available organizational and conceptual resources to achieve what seems appropriate. An earlier paper (2) argues that this approach fails completely to recognize the inherent difficulties in comprehending the instrumental design which is appropriate - and of communication that comprehension, with all its members through the processes of governance.

The following hidden assumptions were listed to illustrate this failure:

1. That the mode is inherently better in some absolute sense in that,
 - conversely, the old mode must necessarily be permanently abandoned as historically outmoded;
 - the defects in the new mode will not eventually prove to be as significant as those under the old mode.
2. That the new mode is equally appropriate to all societies and to all sub-cultures within those societies, especially if adapted to local contexts and requirements.
3. That, if it can be comprehended, represented and discussed within one frame of reference, the mode can nevertheless be of sufficient complexity to respond to the concerns perceived by constituencies preferring other frames of reference.
4. That an appropriate new mode can be readily articulated in its entirety, rather than necessarily provoking a set of partial comprehensions which people, of whatever level of competence, experience considerable difficulty in integrating/reconciling, even if they are motivated to do so.
5. That an appropriate mode can be readily implemented by a consistent pattern of actions, rather than requiring set of seemingly inconsistent and incompatible actions, each favoured or condemned by some different configuration of constituencies.
6. That the coherence and integrity of an appropriate mode derives from a hierarchical relationship between its components, as opposed to other possibilities with characteristics such as:
 - configurations of incommensurable conceptual or organizational groupings in which the hierarchical dimension, if any, is secondary or implicit;
 - cyclic phases of emphasis over time;
 - alternation between seemingly opposed or contradictory policy modes.
7. That credible articulations of a seemingly attractive approach do not effectively obscure hard realities to which the advocating group may be insensitive (or anxious to avoid discussing in order to further some hidden agenda).
8. That any readily devised approach will not necessarily provoke counter-strategies or strategies which exploit the situation created by the implementation of the new approach, undermining it and eventually rendering it ineffective.
9. That, during the implementation of the appropriate new mode, it is possible for any given constituency to avoid being trapped into recognizing any necessary practical strategy

Figure 2

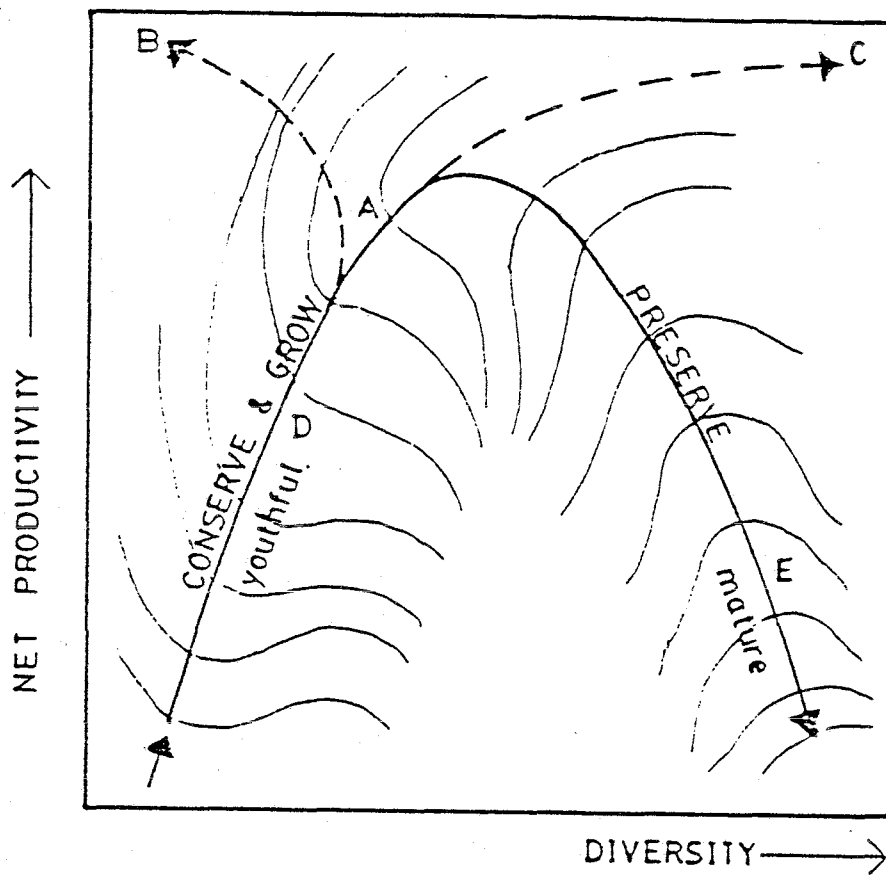


Figure 2: Ecosystem development on the X-Y plane. The contours are a representation of the natural transform and feedback mechanisms operating in the absence of external intervention. In its first stage of development, the ecosystem is Growing and Conserving; in its second stage, it is Preserving. Point A represents the state of traditionally harvested agricultural lands and pastures. B is the situation created by chemical agriculture (Administration), eg the green revolution. C is the area into which the ecosystem is guided by natural agriculture (Conservation), eg the one-straw revolution.

Reproduced from "A Transcultural View of Sustainable Development: the landscape of design" (New Delhi, Development Alternatives, 1986).

in either a "positive" or a "negative" light, and consequently to be entrained to further or oppose that partial strategy, without consideration of whether such effort is excessive in the light of the contextual mode to which it contributes.

10. That the essence of being human, and of human development, involves processes free from ambiguity, paradox and counter-intuitive phases, permitting an appropriate new mode to be articulated in a manner free of such non-rational characteristics.

The remainder of that paper considered the probability that the appropriate global socio-economic mode of organization is necessarily more complex than can be recognized or comprehended within any particular frame of reference - whether conceptual or organizational. The question here is how to describe and handle this epistemological challenge for governance.

The question has been helpfully highlighted by the recent study prepared by Development Alternatives (New Delhi) on "A transcultural view of sustainable development; the landscape of design" as a contribution to the final deliberations of the World Commission on Environment and Development (7). The study outlines "transform grammar of design" based on a "phase space" model using a n-dimensional space to show the evolution of a system (where n is the number of degrees of freedom, or independent variables, needed to describe the system at the level of recursion or aggregation of the model under study). The work draws on recent theoretical advances, including those of Shannon (1962), Ashby (1956), Beer (1979), Prigogine (1985), Zadeh (1965) and de Laet (1985).

The study uses four dimensions to describe systems of interest: and can be partially represented in two dimensions (see Figure 2), in which the dimensions are variety (x-axis), productivity (y-axis), wealth (z-axis) and time. The four corners of the X-Y plane then correspond closely with four basic states of society:

- (a) preservation: homeostasis - stabilizing, maintaining and protecting
- (b) assessment: stasis - evaluating, appraising and monitoring
- (c) administration: growing - ruling, governing and cultivating
- (d) conservation: developing - adapting, innovating and anticipating

The interesting feature of the space so defined is that the trajectory of a social system can be plotted on it to yield valuable insights into its behaviour and potential. The space is characterized by gradients which represent various forces of nature and society. The study identifies 16 generic transforms acting upon any system and attracting it towards one of the four fundamental conditions.

The study points out that such transforms are like the topography of a landscape (changing as the resultant of successive action and feedback) which can direct and channel the movement of a river - hence the subtitle of that paper. Such an approach is in sympathy with the fruitful work by Waddington based on an "epigenetic landscape"(8), and developed by Erich Jantsch (9,10) with respect to policy related questions. The study does not attempt to relate these to the 16 "archetypal" morphologies identified by René Thom in examining related questions (11).

But whilst the Development Alternatives' study sharpens the focus, the result is a model. The authors themselves express reservations about the past uses of such models, although they are optimistic about their own. A step further can however be envisaged (and has been the subject of lengthy discussion with them prior to the preparation of this paper.)

It is apparently necessary to "freeze" any such "epistemological landscape" into a well-defined model in order to navigate over the landscape. And within the short time scales (and electoral periods) characteristic of the majority of the problems of governance (and the budgetary periods of international organizations) such a landscape may legitimately be considered to be unchanging. Governance can then endeavour to move the social system over the landscape.

The epistemological problem lies in the fact that different constituencies are sensitive to different dimensions of the "n-dimensional phase space" out of which the model is extracted or abstracted. Consequently the epistemological landscape perceived by one group may be very different from that which is meaningful to another - such that each may be the basis for the strategies and programmes of a different intergovernmental agency. This has the further consequence between agencies of reinforcing incompatibilities, contradictions, competition for resources and even the undermining of one strategy by another - as has been noted on many occasions, and most recently by Maurice Bertrand (1).

It is therefore less fruitful to focus initially on any particular way of viewing the n-dimensional phase space. Rather it would seem more appropriate to consider the epistemological challenge of how to open up any "window of comprehension" onto such complexity - and how to perceive the relationship between such windows, whether used simultaneously (by different groups) or consecutively.

Before taking the argument further it is necessary to avoid the trap of using the phase space notion itself as a fundamental window. It is a powerful tool but not necessarily convenient for all. "Complexity" has itself recently attracted attention in its own right (12). "Chaos" is now a key descriptor for some interesting breakthroughs in mathematics (13,14). Although it would be incompatible with the theme of this paper to favour any one such description, it is important to recognize the range of attempts to indicate the epistemological attributes at this level of abstraction.

It is somewhat ironic that the earlier Greek philosophers made use of the Greek term "hyle" (matter) and viewed such matter as fundamentally alive, either in itself or by its participation in the operation of a world soul or some similar principle. Characteristically they did not distinguish between kinds of matter, forces and qualities nor between physical and emotional qualities, making any such distinction with an important degree of ambiguity.

The contemporary epistemological challenge remains one of dealing with a form of "conceptual hyle" or "mindstuff" within which the variety of possible models and concepts is implicit and from which they may be explicated, as described by David Bohm (15). This is not to suggest that the "hyle" is purely conceptual. As contemporary studies of this intimate relationship between consciousness and fundamental understanding in physics are clarifying, there is a matter-consciousness continuum of perhaps greater significance than the space-time continuum. Relevant insights from Eastern philosophies are also increasingly (16,17) noted. The comprehension of features explicated from the "hyle" is as much constrained by the realities dear to materialists as it is by individual (or collective) ability to formulate appropriate models of requisite variety and to communicate them.

The challenge of governance is to enable society to navigate through the "hyle", avoiding catastrophic disasters in a manner such as to sustain a process of "development" over the long-term - whatever "development" is understood to mean in the short-term under different circumstances, within different cultures and at different stages of that process. But since governance is above all constrained by daily practicalities, there is a dramatic problem of ensuring some kind of meaningful epistemological bridge between the multi-dimensional fluidity or ambiguity of the "hyle" - with all the innovative potential that implies - and the concrete socio-political realities to which it must respond effectively or be called into question.

III METAPHOR AS AN UNEXPLORED RESOURCE

Metaphor: a keystone function?

Metaphor is a classic device through which a complex set of elements and relationships can be rendered comprehensible - when any attempt to explain them otherwise could easily be meaningless. It is the peculiar strength of metaphor that it can convey the essential without excessive oversimplification, preserving its complexity by perceiving it through a familiar pattern of equivalent complexity.

A metaphor according to Nelson Goodman, "*typically involves a change not merely of range but also of realm. A label along with others constituting a schema is in effect detached from the home realm of that schema and applied for the sorting and organizing of an alien realm. Partly by thus carrying with it a reorientation of a whole network of labels does a metaphor give clues for its own development and elaboration... A whole set of alternative labels, a whole apparatus of organization takes over a new territory... and the organization they effect in the alien realm is guided by their habitual use in the home realm. A schema may be transported almost anywhere. The choice of territory for invasion is arbitrary; but the operation within that territory is almost never completely so... which elements in the chosen realm are warm, or are warmer than others, is then very largely determinate. Even where a schema is imposed upon a most unlikely and uncongenial realm, antecedent practice channels the application of the labels.*" (18, p.72-74)

In relation to governance it is useful to distinguish two basic functions of metaphor, as represented in Figure 3.

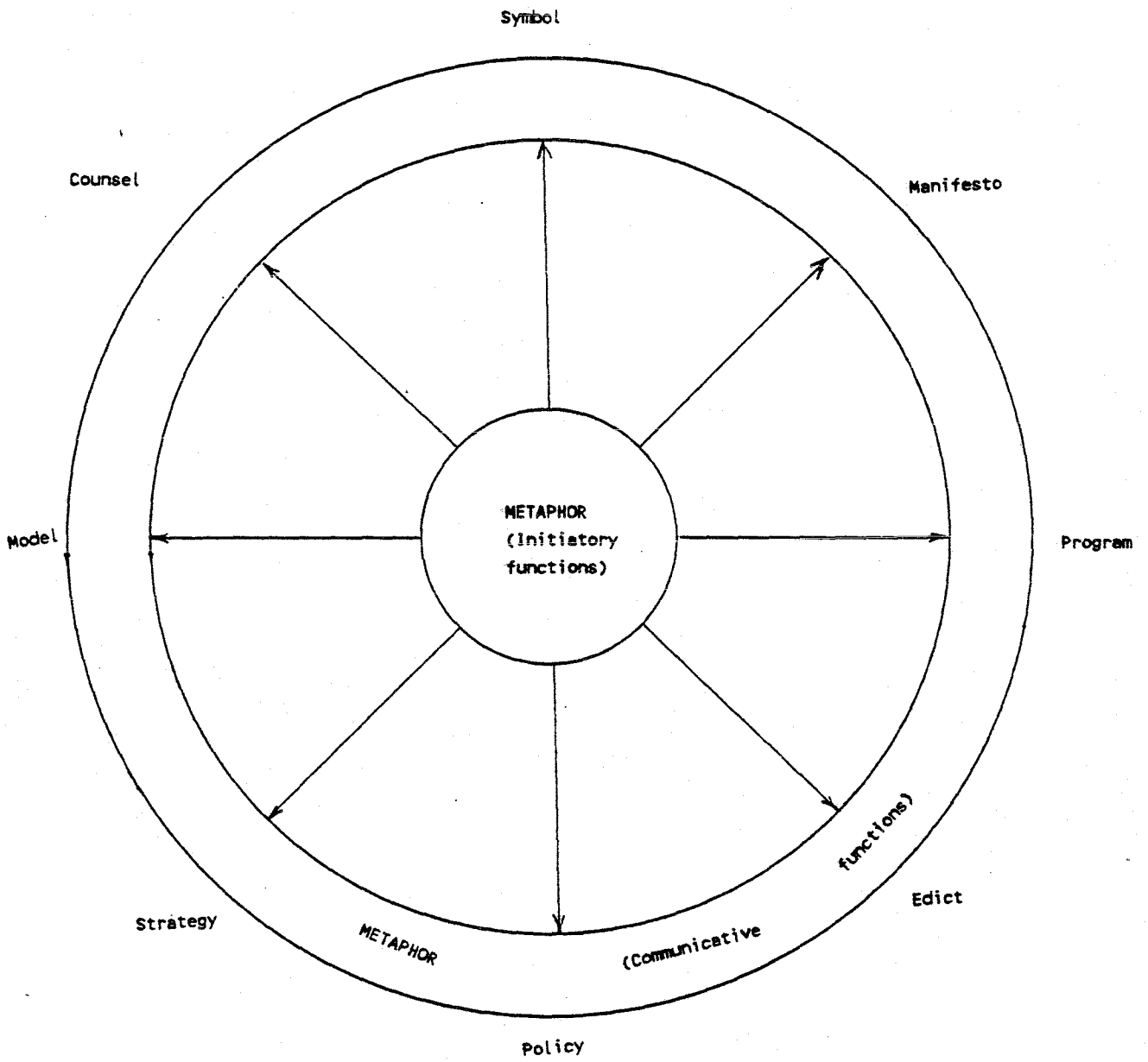
(a) Initiatory function: the importance of metaphor in relationship to creativity, whether in the arts or the sciences, has been frequently noted. Through exploration of "lateral thinking", for example, this has been extended to management (20). In such cases metaphor is the vehicle of insight and provides the first ordering of a previously inchoate set of possibilities and constraints. It is thus a vital tool for concept design. Through a metaphor the earlier confusion is seen in a new way. Once this is possible, other tools may build on this foundation. In the case of governance, this may mean the formulation of a strategy, a slogan, a model, etc. Any such formulation may well make no reference to the triggering metaphor.

(b) Communicative function: once a concept has been formulated, it usually has to be communicated to people and groups who are unfamiliar with the specialized jargon in which it is embodied - and quite possible completely disinclined to learn it. In such a situation, metaphor can be called upon to convey the essentials of the concept. In the case of governance, this may mean the presentation of a model or a strategy. Such presentation may, or may not, use the same metaphor as that through which such a strategy was conceived.

The use of metaphors for communicative purposes clearly has an important integrative function in relating the governors and the governed. But it is the initiatory function which is of prime importance to the internal processes of governance. In a sense metaphor here has a "keystone" function as the ordering pattern or matrix through which strategies, models and programmes take form. It provides the implicit bridge between the disparate tools of governance.

Governance, especially when faced with the complex challenge of sustaining development, makes use of metaphor (whether explicitly or implicitly) in ordering its priorities and strategies. It is such fundamental metaphors imposed upon the "hyle", which give form and stability to a "landscape" on which the hazards and opportunities of governance are mapped. A major attribute of governance is the skill required to traverse such a terrain, possibly whilst under attack from hostile or destabilizing forces. But of equal importance, especially in the long-term, is the ability to switch to a new metaphor through which the epistemological domain is ordered. For, given the inherent complexity of the "hyle", no one metaphor can adequately encompass the dimensions to which governance must respond.

Figure 3



To fulfill its function governance must be able to orient itself in terms of a succession of more appropriate "landscapes". It is possible for a single root metaphor to last the duration of a period of government (and electoral period) and engender a variety of needed strategies. But in a highly turbulent socio-political context, such a single metaphor is more than likely to prove inadequate. Governance then requires the skill to move between a set of metaphors each capable of rendering comprehensible certain sets of dimensions of the hyle. For this skill to become communicable it must itself be embodied in a metaphor.

Challenge for communication devices

There are many aids to communication, as identified in the Forms of Presentation sub-project of the UN University's project on Goals, Processes and Indicators of Development (22). Each form obviously has both strengths and weaknesses, depending on a number of factors but especially on the subtlety or complexity of what needs to be communicated and to whom. The question is whether it is possible to devise some means of by-passing the desperately slow learning cycle associated with research-education-policy formulation-implementation in a world in which the education gap is increasing rapidly.

If the current crisis is to be taken seriously, people need to acquire access to an appropriate response by some other means. The unfortunate characteristic of answer propagation in response to the global problematique, as currently practised with all the skills of media specialists, is that it is conceived in terms of mechanical metaphors such as "hitting" a "target" audience and achieving "impact". This is the approach used both by the public information programmes of the United Nations family of organizations and by grass-roots initiatives such as the recent Planetary Initiative for the World We Choose. This could be described as a "particle" approach acting to achieve the *displacement* of people from one mind-set to another. Arguments presented elsewhere (23) suggest the need for a complementary "wave" approach acting to achieve the *entrainment* of people in terms of their current mind-sets. Propagating an answer by resonance may prove to be a more appropriate mode in dealing with the "field" of world opinion. Particle propagation tends to be considerably slower than wave propagation, as well as being easily blocked or deflected.

The challenge is to make available something simple enough to be comprehensible and yet "seductive" enough to retain peoples involvement. On the other hand, if it is to be of any value at this time, it must also be sufficiently complex and coherent to encompass the complexity of a social reality in crisis, and yet empower people to act together to contain the crisis in such a way as to be transformed by the unique learning opportunity it constitutes. This is a tall order, far beyond the capability or ambition of conventional international programmes.

Under the circumstances it is appropriate to look at unconventional possibilities. One approach is through existing processes, penetrating all levels of society, which already hold most peoples attention, transform their awareness, and govern their actions. The challenge would then be whether it was possible to "code" onto these, as a kind of "carrier", a second level of meaning. The "double meaning" should then offer a totally new set of insights suggesting new patterns of action.

Some possibilities for this approach are: popular music and dance, spectator competitive sports, strip cartoons, rumour and scandal, humour, astrology and divination, myths and legends, fables and parables, sex, courtship and family life, nature and weather patterns. The merit of the last possibilities is that they effectively involve *coding the world problematique back onto the world and onto human beings*, which would seem to be a conceptually elegant response to the problem of self-reference (24,25) in a society of constantly shifting patterns of meaning. Whether we like it or not, as Hilary Lawson notes in reviewing the "post-modern predicament":

"No assertion is simply an assertion, for it carries within it the unsaid awareness that it cannot be asserted. In this sense reflexivity is no longer a form of self-reference, a paradoxical puzzle, or a philosophical argument, but an inescapable movement which is still

present in the movements of apparant stillness. It is as if (speaking metaphorically!), we are caught in the metaphors of language and there is no way to halt their shifting character." (26)

There is also merit in relating a conscious pattern of significance to a substrate by which people are usually governed unconsciously. In Jungian terms this is an appropriate and fruitful form of marriage between conscious and unconscious elements. Humanity's inability to relate creatively to aspects of these unconscious elements (*eg* the environment and the reproductive instinct) severely aggravates the problematique (*eg* environmental degradation and the population explosion.)

Metaphors as a short-cut

The approach advocated therefore involves exploration of the possibility of activating new metaphors which can enchant, empower, explain and orient approaches to the problematique through the user's own comprehension of each metaphor's significance, whether amongst the governors or the governed. Such a use of metaphor is only new in that metaphors have not been deliberately used in this way before, despite the fact that everyone has access to them. In Kenneth Boulding's words: "*Our consciousness of the unity of the self in the middle of a vast complexity of images or material structures is at least a suitable metaphor for the unity of a group, organization, department, discipline, or science. If personification is only a metaphor, let us not despise metaphors - we might be one ourselves.*"(28, p.345) Or, as the poet John Keats puts it: "*A man's life is a continual allegory - and very few eyes can see the mystery of his life - a life like the scriptures, figurative.*" The charm of it, as Bateson stated in concluding a conference on the effects of conscious purpose on human adaptation, is that: "*We are our own metaphor.*" (29, p.304). Unfortunately we have over-identified with the metaphor and have been unable to see ourselves in perspective. The lack of such self-reflexiveness could well prove to be an important contributory factor to the current uncontrolled attitude to procreation which is at the root of many current problems.

Metaphors are much used in every culture by people of every kind as vital short cuts to the communication of nuance and complexity. There is a desperate need for any such short cuts at a time when new intellectual and other insights are virtually inaccessible to most people unfamiliar with the professional jargons in which they are formulated. Metaphors have the tremendous advantage of being grounded in what is familiar, often at a gut level. As such, not only do they facilitate rapid comprehension, but they often suggest new dimensions to what is being conveyed through them. These unforeseen dimensions can provide subtle poetic linkages between isolated mechanistic concepts, as well as totally new insights to be explored.

The natural environment, for example, gives perceptible, concrete, three-dimensional illustrations of the kinds of subtle distinctions which the mind is capable of making. Metaphors based upon any such phenomena therefore firm up intuitions of relationships between non-physical phenomena - rather than reducing them to simplistic, mechanistic forms (as tends, to happen when the natural environment is destroyed, impoverished or inaccessible). They thus offer insights into the management of differences. Metaphors have a unique ability to enchant people and capture their imagination - at a time when alienation and cynicism are the rule. This in fact is what has made them extremely suspect in the eyes of professional intellectuals. As with any tool, however, the issue is really one of learning when and how to use it, and to what purpose.

Comprehension of problems and their possible solutions, for example, may lie in understanding how their metaphorical equivalents may be interrelated. Lakoff and Johnson cite the example of a foreign student of theirs who, on encountering the expression "solution of your problems", assumed that this was a well-recognized chemical metaphor. Through it he had immediately obtained an understanding of the set of problems as being made up of some dissolved into a solution whilst others had been precipitated out (perhaps later to be redissolved again). In this light problems never completely disappear, some are perceptible, whereas others have been temporarily "solved". Any attempt to solve some problems may quite probably precipitate out others. As Lakoff and Johnson say: "*To live by the chemical metaphor...rather than direct*

your energies towards solving your problems once and for all, you would direct your energies toward finding out what catalysts will dissolve your most pressing ones for the longest time without precipitating out worse ones."(30,p. 143-144).

Resurgence of metaphor

Since the early 1970s there has been a progressive increase in the study of metaphor, accompanied by a number of breakthroughs in understanding about the function of metaphor. A bibliography of post-1970 publications on metaphor records 4193 items (19).

It is interesting that this rise in interest should occur in the same period as the widespread recognition of information overload and fragmentation of the body of knowledge. The historian Frances Yates in her study of the art of memory (31), points out that modern intellectual endeavour has inherited from scholasticism its devotion to the rational and the abstract as the true pursuit of rational beings and "banned metaphor and poetry as belonging to the lower imaginative level" (31,77). She states: "To move, to excite the imagination and the emotions with *metaphorica* seems a suggestion utterly contrary to the scholastic puritanism..." (31, p. 77).

Since the current crisis of governance involves both the dimensions of comprehending complexity and of motivating people, it is intriguing that Yates should demonstrate the key role of metaphor in the neglected art of enhancing memory skills. Yates asks whether it would not be easier to remember a multitude of actual facts (*proprial* rather than use metaphors (*metaphorica*) as a means of ordering them. She salutes Albertus Magnus (across) the ages for his concern: (1) "that images are an aid to memory; (2) that many *propria* can be remembered through a few images; (3) that, although the *propria* give more exact information about the thing itself, yet the *metaphorica* move the soul more and therefore better help the memory" (31, p.77).

In these terms the challenge to memory is the underlying problem posed by complexity and for governance. More complex processes call for a longer collective attention span. "*Something has been left out all along the line and it is memory*" (31, p.89). The need for memory aids may indeed be a major factor in the rise in interest in metaphor.

It is now recognized that metaphors permeate use of both everyday language and the jargons of many disciplines including physics (32,33). As George Lakoff and Mark Johnson note: "*Metaphor is for most people a device of the poetic imagination and the rhetorical flourish - a matter of extraordinary rather than ordinary language...most people think they can get along perfectly well without metaphor. We have found, on the contrary, that metaphor is pervasive in everyday life, not just in language but in thought and action. Our ordinary conceptual system, in terms of which we both think and act, is fundamentally metaphorical in nature.*" (30, p.3)

Lakoff and Johnson demonstrate this with many examples which are confirmed in Roger Jones study of *Physics as Metaphor* (33). The authors conclude that "*If we are right in suggesting that our conceptual system is largely metaphorical, then the way we think, what we experience, and what we do every day is very much a matter of metaphor.*" (30, p.3) They started their work from a concern that the understanding of meaning as explored by Western philosophy and linguistics had very little to do with what people found meaningful in their lives and quickly discovered that the assumptions of those disciplines precluded them from even raising the kinds of issue they wished to address. "*The problem was not one of extending or patching up some existing theory of meaning but of revising central assumptions in the Western philosophical tradition. In particular, this meant rejecting the possibility of any objective or absolute truth... It also meant supplying an alternative account in which human experience and understanding, rather than objective truth, played the central role.*" (30, p.x)

The authors show how metaphor reveals the limitations of objectivism, namely the assumption that the world is made of distinct objects with inherent properties and fixed relations between them. In a subsequent paper Lakoff takes the investigation a step further with an extensive exploration of classical assumptions about categories and cognitive models. He concludes:

"Changing our ideas about categories will require changing our ideas about rational thought, the nature of the mind and its relation to the body, and, in the process, changing our conception of man. Rationality, rather than being disembodied, purely mental, asocial, unfeeling and mechanical, is something which essentially involves the body, the senses, the emotions, social structure, interactions with other people, the imagination, and the capacity for idealization and for understanding based on the totality of experience. And the use of many partial models, some of which are inconsistent with each other, to comprehend experience is not irrational, but rather fits the paradigm of human rationality." (34)

This does not necessarily imply that objectivist categories and models should be abandoned. It does suggest, as argued elsewhere (23), that these constitute only one form of language and that there are others on whose resources society can draw at this critical time.

It is interesting that the current explorations of the function of metaphor are clarifying its traditional use in conveying subtleties which are denatured by conventional categorization, namely the kind of altered modes of awareness, whether associated with religious experience (36) or other forms of peak experience characteristic of certain approaches to human development (36). J P van Noppen points out that *"while it is becoming clear that metaphor is not a panacea providing the final answer to all questions raised by human attempts at framing a transcendent mode of being in man-centred language, the present evolution traces paths of thought and investigation which deserve to be pursued and which are...being trodden with a great deal of enthusiasm."* (37, p.4) This has been stimulated by explorations of the mechanism whereby man's words could be "stretched" beyond the usual limits of this worldly reference. He stresses however that exponents of metaphor have not been blinded to the limitations of the medium. The contributors to the reader edited by van Noppen repeatedly emphasize that the metaphor *"should not be taken beyond its point, i.e. should remain subordinate to the insight it was coined to express, and perhaps even be adapted when the actual insight is blurred or swamped by secondary associations."*(37, p.4)

Models, analogies and metaphors

There is an ongoing debate in the philosophy of science concerning the status of models and analogies in relation to scientific "explanations" (38). Sharp distinctions have been made by some between models, analogies, metaphors and isomorphs in this debate. As a technical term, analogy has been used to designate a kind of predication midway between univocation and equivocation. For many years it was therefore of no interest to scientists who perceived themselves as dealing only in univocal terms. But research in fundamental physics involving phenomena only describable by complex equations has given increasing legitimacy to analogy and metaphor as tools with which to create, comprehend and communicate complex intangibles. Analogy and metaphor, however they may be distinguished, have thus come to serve the same function as they have traditionally had in theology where metaphor has been used to focus the mind on the dynamic real (36).

There is therefore a shared recognition that univocal language cannot satisfactorily express the degree of complexity or subtlety which has been found necessary to embody the relationships affecting human understanding of man's relation to the universe. There is recognition that not only is human experience metaphorical in nature, but also that metaphor is an essential constituent of the structure of human experience. That is, part of the meaning of any experience is elusive, and it is the use of metaphor that formulates this elusive meaning and makes available an understandable figure of speech (35). Mutual interaction between the metaphor tenor and vehicle has been discovered to be the paragon of all coherent experience in which sensation is able to achieve a state of resonance with some residuum from the experiencer's heritage of remembrance (39).

This paper has avoided any exercise in defining metaphor. Indeed it is questionable whether this would be fruitful - point raised by V V Nalimov who holds that it cannot be given a good definition (95, p.78). For the purpose of this discussion it is important not to restrict the idea of metaphor to the literary sphere. It is not possible here to explore the complex relationship noted by various disciplines between metaphor and other forms such as analogy,

myth, allegory, parable, ritual, and literary, symbols (as distinct from a mere sign or indicator.)

The relationship between metaphor and symbol is much discussed. According to many authors any symbol-sentence is a metaphor in the sense that it transfers to one subject what was originally associated with another (36, p.133). But Avery Dulles notes that: *"When a metaphor is used simply to illustrate what is already known in a nonsymbolic way, it does not function heuristically as a symbol. Going further, some literary critics... hold that every living metaphor is too personal and evanescent to be called a symbol - a term which in their view connotes greater objective density and firmer rootedness in the stable forms of biological and communal existence. Although their view of symbol may be too narrow, we may agree with these authors that the power of metaphor depends on the prior presence of meaningful structures in the events and realities to which the metaphor refers."* (36, p.133-134)

In addition to discussion within the literary and artistic disciplines, there is also extensive debate amongst those preoccupied with the philosophy and methodology of science concerning the relationship and status of models, metaphors, paradigms and symbols. It should not of course be forgotten that a significant proportion of such debate is between schools of thought in which the ability to establish new distinctions and disparage those of other schools is much appreciated. Of special interest however, are those studies which endeavour to bridge the gaps between their use in science, art and religion.

Ian Barbour, for example, states that: *"A metaphor proposes analogies between the normal context of a word and a new context into which it is introduced... There is a tension between affirmation and negation, for in analogy there are both similarities and differences... A metaphor can order our perception, bringing forward aspects which we had not noticed before... a novel configuration has been produced by the juxtaposition of two frames of reference... It is a new creation for which there are no rules, and its meaning survives only at the intersection of the two perspectives which produced it. One must maintain an awareness of both contexts illuminating each other in unexpected ways."* (83, p.12-13)

Literary critics, according to Barbour, have debated at length as to whether the metaphor's assertion of significant analogies can be reduced to a set of equivalent literal expressions, giving the metaphor a purely decorative and rhetorical function with no distinctive cognitive content - a psychological role but not an indispensable logical one. The opposing view, which he supports, holds that a metaphor is open-ended and can not therefore be reduced to such a set of statements - it has an unspecifiable number of potentialities for articulation which it is up to the user to explore (83). Efforts have been made to program computers to translate political and economic metaphors into equivalent literal statements (84).

Scientific models, Barbour argues, are also based on analogies which are open-ended and extensible, although they tend to be more systematically developed than metaphor. Unlike scientific models, metaphors, especially in poetry, tend to have emotional and valuational overtones. They evoke feelings and attitudes. They are dynamic and involve the user as a participant, encouraging him to draw from various dimensions of his own experience. Metaphor is expressive of the poet's experience and evocative of the listener's. But the presence of these non-cognitive functions does not require that cognitive functions be absent. Metaphors influence perception and interpretation as well as attitude. A poem is judged by its faithfulness to concrete human experience.

For Barbour many religious symbols seem to be metaphors based on analogies with man's experience. He argues that poetic metaphors are used only momentarily, in one context, for the sake of an immediate impression or insight, whereas religious symbols become part of the language of a religious community. They are then the expression of man's emotions and feelings, and are powerful in calling forth his response and commitments. They arise from personal participation, rooted in man's experience as an active subject, not detached observation. He further points out that religious models, like literary metaphors, influence attitudes and behaviour and also alter ways of seeing the world. They serve as organizing images which give emphasis, selectively restructuring as well as interpreting perceptions.

He seems to be unnecessarily absolute in his claim that metaphors are only used "momentarily", whereas models are used in a sustained, systematic fashion (83, p.16). This is somewhat inconsistent with his later points noting the exact parallelism perceived by certain philosophers between models and metaphors in their heuristic uses (83, p.43). There are also an increasing number of arguments by scientists suggesting that science itself is metaphor (40). In this sense metaphor is clearly not specially limited in the time dimension. As Donald Schon argues, both offer programmes for exploring new situations (85).

Unfortunately those assuming responsibility for advocating and implementing new policies in response to the social problematique do not consider the social system to involve problems of comprehension as complex as those encountered in fundamental physics and theology. They continue to believe that policies of requisite complexity can be envisaged using non-metaphoric language, with the consequence that such policies tend to be simplistic, inadequate, incoherent (except to those involved) and incapable of arousing the enthusiasm of broad constituencies. However, when it is a matter of practical politics, politicians make considerable use of metaphor in communicating their positions to the masses (eg "nuclear umbrella", "Star Wars", "green revolution"), as the studies cited by van Noppen show. Instead of policy-makers using richer metaphors to envisage more imaginative policies of an inherently more integrative nature, policy-making is done using a sterile administrative jargon (legitimated by its academic equivalent). The simplistic product is then discussed and communicated to a wider public using metaphors which fail to conceal the poverty of the imagination on which the policy is based (eg "umbrella").

Metaphor and truth

Astronomer Hanbuyg Brown points out that: *"physicists have come to realize that because our descriptions of the "real" world are metaphors based on limited abstractions from a more complex reality, it is possible to arrive at quite different, even contradictory concepts of the "thing" which is being observed"* (40, p.139). Such a change in perspective is surely of interest in assessing different theories of development and different ideologies, especially since Brown continues: *"This new view of reality shows us that all our descriptions of objects are not of what they are "like in themselves", as was envisaged in mechanical philosophy, but are descriptions of how they "behave" in response to the observations we choose to make"* (40, p. 140)

He summarizes the current approach to scientific truth in the following terms: *"Thus we can think of our whole scientific picture of the physical world... as a metaphor which describes what we observe of a complex, perhaps incomprehensible, reality in terms which we can grasp and use. This picture is limited, not only by our understanding, but also by our tools of observation, so that it is always incomplete, always unfolding and always provisional. It can never claim to be the absolute truth, but at any given time it is the best picture we have."* (41, p.140).

Such considerations are highly relevant to any attempts to model the development process, or to formulate development strategies. Part of the current tragedy is that the advocates of ideologically "incompatible" development strategies do not recognize that, as Brown puts it, what is excitingly new about these epistemological developments in science is that they have significant practical consequences: *"Surely it is a valuable step forward to be able to demonstrate to anyone, no matter how sceptical, that our description of the world actually does depend upon how we choose to observe it, and that in consequence there can be more than one valid way of describing the same thing"* (40, p.141).

From the point of view of the arts in response to the key question of the relation of metaphor to truth, Nelson Goodman in a study of *"Ways of Worldmaking"*, states that: *"Truth, moreover, pertains solely is what is said, and literal truth solely to what is said literally. We have seen, though, that worlds are made not only by what is said literally but also by what is said metaphorically..."* (41, p.18). Also: *"metaphorical truth differs from metaphorical facility much as literal truth differs from literal falsity"* (41, p.31). And in response to the need to distinguish between valid and invalid multiple possibilities: *"Not only does*

countenancing unreconciled alternatives put truth in a different light, but broadening our purview to include versions and visions that make no statements and may not even describe or depict anything requires considerations of standards other than truth" (44, p.107). In a study of the "Languages of Art" he notes: "Truth of a metaphor does not, indeed, guarantee its effectiveness. As there are irrelevant, tepid and trivial literal truths, there are far fetched, feeble, and moribund metaphors". (41, p.79) He also notes: "A frozen metaphor has lost the vigour of youth, but remains a metaphor. Strangely, though, with progressive loss of its virility as a figure of speech, a metaphor becomes not less but more like literal truth." (41, p.68)

IV GOVERNING METAPHORS AND METAPHORS OF GOVERNANCE

Root metaphors

There is of course a multitude of metaphors on which politicians draw to increase the power of their communication and these have been extensively studied (see refs 42 to 52), including metaphors implicit in the Communist Manifesto (53). It has even been said that "The politician without metaphor is a ship without sails" (54). But such uses of metaphor tend to correspond to the communicative or illustrative function noted above.

There seem to be very few studies of the use of metaphor in economics (55), public policy-making (56), strategic planning (57) or decision-making (58), namely the internal, initiatory processes of governance. The challenge for governance is to discover whether there are not some key "root" metaphors, each especially applicable under certain circumstances. Of even greater value would be the existence of any systematization of them relevant to the problems of governance. The existence of such root metaphors has been reviewed in work by the geographer Anne Buttmer (based in Sweden).

Buttmer examines geographic thought and practice in terms of a contemporary trend away from observation (of reality) to participation (in reality). This trend is not so much a linear or chronological progression as a conceptual (even ideological) transformation, involving epistemological, dialectical and hermeneutical phases (59,60). Her basic approach is inspired largely by Stephen Pepper's theory of world hypotheses by which four distinct world views are claimed to have stood the test of time in Western intellectual history: formism, organicism, mechanism and contextualism (61).

Each of these hypotheses about the nature of world reality grounds its claims to truth, and its categories of analysis, on a "root metaphor". In geography she sees a reflection of these macro world views in the root metaphors of "map", "organism", "mechanism" and "arena".

Thus: formism grounds itself on the common sense experience of similarity and a correspondance theory of truth, expressed in the case of geography in a preoccupation with mapping. Mechanism, based on a causal adjustment theory of truth, takes the machine as root metaphor, resulting in a preoccupation with special systems and functional mechanisms in the case of geography. Organicism, based on a coherence theory of truth, regards every event as a more or less concealed process within an organic whole. Finally, contextualism, based on an operational theory of truth, sees the world as an arena of unique events.

Buttmer points out that creative thinkers move quite freely between the different styles of these root metaphors. Each of them "spells a distinct design for the physical and functional arrangements of space, time, and activities on the ground; their often incompatible demands eventually becoming legible in the texts and textures of urban life. Which metaphor, or combination of metaphors, will endure or dominate at any particular will, of course, be a function of economic and political power interests..." (59, p.92).

Buttmer recognizes that this set of root metaphors may not be exhaustive, but stresses its heuristic function. But although her geographical and planning concerns touch on those of governance in general, they focus more on how geographers have been dominated by particular metaphors at particular times in the development of the discipline, rather than on the insights they provide for the government of a territory or institution.

Pepper's root metaphors have features similar to Magoroh Maruyama's four epistemological "landscapes" (62,63):

- (a) Homogenistic, hierarchical, classificational;
- (b) Heterogenistic, individualistic, random;
- (c) Heterogenistic, interactive, homeostatic;
- (d) Heterogenistic, interactive, morphogenetic.

But again, despite Maruyama's cybernetic concerns, it would appear that his work focuses more on the variety of ways in which a control situation might be analyzed rather than the implication for how it might be controlled or governed. He does however recommend a "poly-ocular" shift between these alternative mindscapes.

The difficulty here is that both Pepper's and Maruyama's sets are essentially sterile in this form. As analytical modes they fall victim to the same impotence as many other interesting sets of academic categories. Indeed these two sets of four have strong points of comparison with that described earlier from Development Alternatives (7), derived quite independently. But metaphor, in the sense of this paper, has an essential feature which is absent from these sets which appear here to have a "paradigmatic" dimension.

Buttmer herself says: "*Metaphor, it has been claimed, touches a deeper level of understanding than "paradigm", for it points to the process of learning and discovery - to those analogical leaps from the familiar to the unfamiliar which rally imagination and emotion as well as intellect*" (p.50). Furthermore she points out that (citing Cassirer and Lange): "*This propensity to make symbolic transformation of reality is the most characteristically human activity of all*" (59,p.90). She quotes Doctorow: "*The development of civilizations is essentially a progression of metaphors*" (65,p.231-2).

These insights still do not focus sufficiently on the ways in which root metaphors might be used in governance. Taking Buttmer's point, how does the creative thinker move creatively between the different styles of such root metaphors? What is required are some clues to the projection of such fundamental metaphors into the decision-making context of governance - clarifying how to select and shift between them in the process of handling the socio-political hyle. Transforming Doctorow descriptive's approach into the operational challenge of governance: *How is the progression of metaphors to be designed in order to develop civilization?*

Examples of metaphors in governance

Is it possible to locate some key metaphors that are currently of fundamental significance to governance and especially to that of the international community? Whilst many are mentioned in relation to politics none are identified in relation to government in van Noppen's bibliography (19). To the extent that the eight clusters of dimensions of governance in Figure 1 are an appropriate guideline, it would indeed be fruitful to indicate any associated metaphors.

Examples of such metaphors might include:

- (a) Containment cluster: "guardian of the people", "nuclear shield", "nuclear umbrella";
- (b) Simplicity: "One Earth";
- (c) Complementarity: "global village", "100 flowers blooming";
- (d) Difference: "evil empire", "enemy of the people";
- (e) Empowerment: "grass roots", "mobilization of public opinion";
- (f) Operational relevance: "in the field", "Band Aid";
- (g) Complexity: "Gaia", "information explosion";
- (h) Requisite variety: "cultural heritage", "folk wisdom".

Perhaps the most dramatic example of the use of metaphors in governance is in relation to military-questions. The whole approach to thinking on such matters is affected by such notions as "nuclear shields" and how they are to be "penetrated", especially in a "star wars" context. Whilst some metaphors are identified by opponents of an approach (e.g. "nuclear freeze"), others are developed within the military, as in the names given to military projects and secret operations (e.g. "Thunderbolt"), as well as to weapons systems themselves (e.g. "Starfighter", "Trident"). Are such names intended to motivate those who decide on their use, those who operate them, those provide funds for them, or those who will hopefully be intimidated by them?

It is also interesting how some of the operational groups working for global harmony, have deliberately cultivated certain metaphors, possibly reinforced by images and symbols. Thus the

"One Earth" image and the Gaian metaphor, and especially "grassroots" approaches and operations "in the field". It is even useful to ask to what extent the whole vocabulary of development action is based on metaphor: "organization", "programme", "task force", etc.

But although these are clear examples of the extensive use of metaphor in relation to governance or in support of it, the question remains whether the role of metaphor is limited to a public relations function, namely, to the communication function noted earlier. The examples above may affect the way people think about the governance of complex issues (e.g. references to Reagan's "John Wayne"/"Rambo" approach to governance), but do they affect the processes of governance itself and the way choices are made? The literature cited above provides ample evidence of the use of metaphor by politicians in parliamentary debate to clarify an issue or attack the position of the opposition. Criticism of Thatcher's policy of privatization was recently given a very sharp focus through former Prime Minister Harold Macmillan's phrase "selling off the family silver". Thatcher's subsequent reply in justifying and reiterating that policy was "selling the family silver back to the family". This is a good example of policy clarification at the metaphoric level.

But such examples, even though significant in parliamentary debate, do not indicate whether metaphors are used in the initiation or elaboration of policy. This is the difference between cabinet level debate and parliamentary debate. But even cabinet level debate is about policies already outlined in draft form through the services of secretariat professionals who normally make great effort to avoid metaphor in an effort to present texts "professionally" (in dry administrative jargon.) However such secretariats are supposedly the infrastructure of governance, so the question remains how actively metaphor is used in the "smoke filled rooms" where policy options are conceived and mulled over, prior to being formulated on paper and in feasibility studies. What are the conceptual processes through which such policy options are conceived by those taking new initiatives in governance? And what part does metaphor play in such processes?

In the case of President Reagan, the "most powerful man in the world", it has frequently been pointed out that he prefers to receive information in the form of video films and imagery in general, rather than through briefing documents (especially those in excess of one page, as is the case with most politicians). Is it possible that the kinds of policy which he supports are limited by the kinds of metaphors to which he is sensitive? Would more appropriate policies become credible if their conception could be supported by richer metaphors? How is the richness and quality of metaphors such as "John Wayne" and "Star Wars" to be compared with those such as "Gaia" (65)?

Insights: From traditional guides to governance

In considering the problems of governance in sustaining development, it is appropriate to bear in mind the fundamental differences in attitude towards action in the Occident as compared to the Orient. In the West action can be characterized in terms of achievement of a goal, advance from A to B. In the East, action has an important cyclic component. Progress, if any, can be characterized by improvement in the quality of the cycle of action. These contrasting attitudes are reflected in chess and the games of go (or *weigi*). It is worth noting that one study of the Vietnam war has demonstrated how the Chinese won by employing strategies characteristic of go (presumably in contrast to Western approaches to strategy which tend to be associated with those of chess). Since sustainable development must necessarily embody cyclic features, it is appropriate to examine traditional guides to governance which embody them.

One such guide is *The Book of Changes*, otherwise known as the *I Ching* (66). This has been a major influence on Chinese thinking for 3000 years, providing a common source for both Confucian and Taoist philosophy. As noted by R G H Siu: "*For centuries, the I Ching has served as a principal guide in China on how to govern a country, organize an enterprise, deal with people, conduct oneself under difficult conditions and contemplate the future. It has been studied carefully by philosophers, like Confucius, and men of the world, like Mao Tse-Tung*" (67). For this reason the popularity of its (ab)use as an oracle should not be confused with

Figure 4

† CP2001 Creativity

Condition Creative energy and inspiration may engender new patterns as a result of unrestrained action by a network.

Subconditions:

1. Patient caution by the network may be required to avoid premature action. (To: CP2044)
 2. Exertion of a recognized positive influence by the network may be required prior to action. (To: CP2013)
 3. Attraction of mass support by the network can lead to the temptations of over-ambition. (To: CP2010)
 4. The network may be faced with the choice between internal development and external social action. (To: CP2009)
 5. Widespread recognition of the effects of the action of the network on society may result in long-term positive consequences. (To: CP2014)
 6. Catastrophe may result when the network indulges in aspirations exceeding its capacity. (To: CP2043)
- Transformation sequence In order to bear fruit, creativity eventually requires the existence of a receptive environment.

† CP2044 Encounter

Contact — Infiltration of the inferior — Coming to meet

Condition A network may find itself attracted by initiatives made by those of inferior values. Although apparently harmless, according to them recognition allows them to develop, possibly leading to a dangerous condition, unless they are free from ulterior motives.

Subconditions:

1. If a measure of acceptance has been accorded to those of inferior values by the network, they must be constantly held in check to prevent undesirable developments. (To: CP2001)
 2. If those of inferior values have been successfully contained by the network, care must be taken not to allow them to develop their influence through contact with others unable to maintain such control. (To: CP2033)
 3. If the network is tempted to collaborate with those of inferior values, but is prevented by circumstances from doing so, the errors that are liable to result from such indecision may be avoided by becoming aware of the dangers. (To: CP2006)
 4. If the network is unable to tolerate those of inferior values, they cannot be called upon for assistance in time of need. (To: CP2057)
 5. The network may tolerate and protect collaborators of inferior values, relying solely on the superior qualities of its influence as a means of successfully controlling them. (To: CP2050)
 6. A network no longer concerned with mundane affairs may be able to tolerate the reproaches of those of inferior values with whom it refuses to associate. (To: CP2028)
- Transformation sequence A multiplicity of encounters leads to congregation.

† CP2033 Withdrawal

Retreat — Yielding

Condition A network may usefully withdraw when faced with opposing forces favoured by the current circumstances of society. For the retreat to be constructive it should be carried out with acts of resistance which prepare the way for later counter-movement.

Subconditions:

1. The retreating network should not take any initiative if it is in immediate contact with the opposing forces. (To: CP2013)
 2. Those of inferior values may maintain such close contact with the network that they are successful in achieving superior goals. (To: CP2044)
 3. The network may only achieve the freedom to retreat by taking responsibility for those who would otherwise prevent it, but this course carries its own risks. (To: CP2012)
 4. The network of superior values adapts easily and harmoniously to the process of retreat from those of inferior values who degenerate when deprived of such guidance. (To: CP2053)
 5. The network must judge the time for retreat correctly, and act firmly, or else run the risk of unpleasant discussion of irrelevant matters. (To: CP2050)
 6. Once the network has ceased to identify with the prevailing conditions it acquires the ability to act fully in following the most appropriate line of retreat. (To: CP2031)
- Transformation sequence Withdrawal cannot continue indefinitely, hence power becomes evident.

† CP2012 Stagnation

Obstruction — Standstill

Condition Disharmony prevailing in a network and in its relationships with society ensures an uncreative period of confusion and disorder. As the exertion of effective influence is impossible, a network can best remain faithful to its principles by withdrawing into seclusion rather than by accepting the temptation of public action.

Subconditions:

1. Under such unfavourable circumstances, the network may best protect its values by retiring into seclusion with other of similar preoccupation. (To: CP2025)
 2. The network should not interact with those of inferior values, even though they might welcome such action as a way of reducing their disorder, any consequent suffering to the network is a guarantee of its ultimate success. (To: CP2006)
 3. Those of inferior values, who have illegitimately acquired power within the network or in society, eventually recognize their lack of ability. (To: CP2033)
 4. Those seeking to restore order within the network or in society should feel capable of responding to the challenge in collaboration with others rather than risk acting in the light of their own limited perceptions. (To: CP2020)
 5. Once the network has emerged into a position from which order can be restored, success is only assured through the greatest attention to the possibilities of failure. (To: CP2035)
 6. The network must act deliberately and creatively to end the condition of stagnation and disintegration. (To: CP2045)
- Transformation sequence Stagnation cannot persist indefinitely and therefore fellowship finally emerges.

† CP2014 Wealth

Possession in great measure

Condition A network may acquire a position of power in relation to the strong by acting disinterestedly with a low profile. In this way wealth is appropriately administered in a graceful and controlled manner.

Subconditions:

1. The network can avoid the temptation of wealth only by developing an awareness of the many difficulties to be overcome and of the possibilities of mistakes in its use. (To: CP2050)
 2. The network should delegate responsibility in order to ensure that the resources at its disposal are used most effectively in new undertakings. (To: CP2030)
 3. The network is most successful when it seeks to place itself and the wealth it has acquired at the service of a higher cause, or of society as a whole, rather than vainly attempting to maintain a hold on it for itself. (To: CP2038)
 4. The network should carefully distinguish its own position from that of the strong with whom it is in contact, in order to avoid the dangers of vying with them and thus jeopardizing the very basis of its power. (To: CP2026)
 5. Even when the benevolent action of the network succeeds in attracting support based solely on unaffected sincerity, the tendency for insolence to emerge must be kept in check through the strength of dignity. (To: CP2001)
 6. When at the height of its power, the network can best enhance the value of its position by cultivating an unassuming attitude and honouring values which transcend the mundane affairs of society. (To: CP2034)
- Transformation sequence To retain valuable possessions, the amount should be modest and the attitude unpretentious.

† CP2035 Progress

Condition A network may achieve great progress when it is able to influence others to collaborate in the light of superior values. Progress may be accompanied by expansion.

Subconditions:

1. The network's initiative may fail to meet with a positive response from those calling for progress and it should not run the risk of making mistakes through being perturbed by this. (To: CP2021)
 2. The network should continue in its efforts, even though progress is blocked and inspiration lost, for the latter will return when it can be based on fundamental principles not centred on the narrow preoccupations of the network. (To: CP2064)
 3. The network may be encouraged by the support of others, even though it is unable to succeed without their assistance. (To: CP2056)
 4. The network should avoid the temptation of using its position to accumulate advantages, especially since such abuse tends to be discovered in times of progress. (To: CP2023)
 5. The network should appreciate the values of its influential position in promoting the progress of society, rather than regretting lost opportunities in which its own narrower interests could have been advanced. (To: CP2012)
 6. The network may act aggressively to rectify conditions opposing progress among its own contacts but should be aware of the dangers of such a procedure, particularly when extended to others. (To: CP2016)
- Transformation sequence Progressive expansion eventually encounters resistance leading to decline.

† CP2023 Deterioration

Intrigue

Condition Under certain conditions of society inferior values may predominate. A network of superior values is wise to accept this phase of events calmly rather than vainly attempting to counteract it.

Subconditions:

1. Those of inferior values may initiate schemes to undermine the position of the network by intriguing against its supporters. (To: CP2027)
2. The network, isolated by the initiatives of those of inferior values, may be destroyed unless it can rapidly adjust its position. (To: CP2004)
3. Provided it is able to enhance the expression of its superior values, the network may disassociate itself from those of inferior values, who will then oppose it actively. (To: CP2052)
4. Events can deteriorate to the point at which the network is unable to avoid misfortune. (To: CP2035)
5. Those of inferior values may be attracted by the superior values of the network and voluntarily accept its guidance. (To: CP2020)
6. As support for the network increases, the strategies of those of inferior values become progressively more self-destructive. (To: CP2002)

Transformation sequence Deterioration cannot continue indefinitely, thus recovery finally commences.

† CP2020 Recognition

Contemplation

Condition Through the effort it devotes to comprehending the significance underlying external events, a network acquires the power to apply that understanding to influence events. This power can be recognized by others, who may in turn be influenced by it to take the actions of the network as a model for their own.

Subconditions:

1. Whilst it is to be expected that some can only be superficially affected by a profound understanding of events, it is to be regretted when the network of superior values contents itself with a shallow, disconnected view of the forces prevailing in society as a whole. (To: CP2042)
 2. Whilst for some it is sufficient to view the world from a subjectively limited standpoint, this narrowness is harmful in the case of the network which must take an active part in the affairs of the world. (To: CP2059)
 3. When it focuses on recognition of its own nature and the effects it creates, this may be a basis for the network to determine whether or not it is developing. (To: CP2053)
 4. The network should facilitate independent action by those who understand how it can be made to flourish. (To: CP2012)
 5. Self-evaluation by the network of superior values will only bring satisfaction when its effects are beneficial and free of mistakes. (To: CP2023)
 6. The network detached from mundane affairs will most benefit society when exploration of psycho-social processes brings recognition of how it may avoid being responsible for generating negative effects. (To: CP2008)
- Transformation sequence Recognition of the relationship between results engenders decisive integrative action.

the philosophy and insight embodied in its structure, or the uses to which it was put by those in power.

At the more fundamental levels of interpretation of the *Book of Changes*, as its title implies, the concern is with the way things change. In this sense it purports to show the different forms of change in what was identified earlier as the hyle, which could also be related to Bohm's "holomovement" (15).

Although the *I Ching* identifies specifically some 384 transformational pathways between 64 basic conditions of the "hyle-human" relationship, these are grouped into 8 basic patterns or rhythms of change. Each such pattern of change can engender or sustain a certain kind of structure within the psycho-social system. Change or movement in this sense is the essence of the most significant kinds of structure. These basic patterns can therefore be understood as the forms of change to which governance must respond and, if it is to guide the developmental process, must embody into the processes of governance (if Ashby's Law of requisite variety is to be respected).

In the words of David Frawley: "*Motion and structure cannot be regarded as two different and contradictory things in a universe where everything is constantly changing. Where everything is changing any true structure can only be through change, not against it... To understand change as structure is to understand the world as change and to begin to interiorize the world back into ourselves*" (68, p.151).

The *I Ching* itself is replete with characteristic metaphors through which those of Chinese culture have been assisted in their understanding of these different processes of change. There can be little doubt that in this way the Chinese processes of governance were directly assisted by the metaphors and the manner in which they were interwoven within the *I Ching*. Such metaphors appear quite alien to the Western mind, so there is little point in presenting them here. Contemporary Chinese political terminology continues to make extensive use of number-based metaphors, such as the "9 stinking categories" (69).

There remain the insights offered by the *I Ching* into the eight fundamental patterns of change which the human mind can supposedly perceive in the hyle. An earlier paper presented the results of an exercise in translating the 64 conditions of the hyle-human relationship described in the *I Ching* into Western management jargon (70). Each of the eight fundamental patterns of change groups eight of these conditions together as phases of that pattern. In Figure 4, the eight patterns are presented with the labels resulting from that translation exercise.

According to David Frawley each of the eight phases in a pattern has a distinct function:

- (1) The essential state of a force which transcends its subsequent movement on one hand and imitates it on the other;
- (2) The phase in which the manifestation, movement or changes of a force first begin in incipient rather than definite form;
- (3) The phase in which the actuality of the force becomes apparent as a fact rather than as a tendency;
- (4) The phase in which the force merges with its opposite, engendered by its own emergence as the balancing factor, required to sustain the development of any force;
- (5) The phase in which the force reinitiates movement, as a dynamic reorigination, on a more intense level after having derived energy from its complement;
- (6) The phase in which the force reaches its maximum point of development through which its limits are encountered;
- (7) The penultimate phase in which the force begins to return to its essential form;

(8) The ultimate phase in which the significance of the whole pattern is established and through which it is transformed into its original form.

Do such suggestions offer real insights into the challenge for governance? It could be argued that each pattern is a schematic substrate which lends itself to allegorical illustration of the different styles of governance. Metaphors of greater current relevance to the international community could then presumably be used to interpret the patterns and their phases.

The economic successes of Japan have so traumatized Western managers, that great attention has been focussed on works which guide them in their strategic thinking. The 394 precepts in the Chinese classic Sun Tzu's *The Art of War* (71) are considered of relevance not only in modern military academies but also to corporate strategy. It is considered required reading for any corporate strategist in the Far East. Clearly it is not difficult to use the problems of successful warfare as a metaphor for the corporate warfare of economic competition.

Much closer to the subtleties of Japanese strategy is *The Five Rings*, a classical study of the art of swordsmanship. A recent English translation appears with the subtitle "*The Real Art of Japanese Management*" (27). This makes very extensive use of metaphor to develop understanding of subtle strategies for dealing with an opponent. They too are fruitfully interpreted as metaphors for strategic problems. It is somewhat extraordinary to the Western mind to find in such a book on strategy a whole section devoted to the practitioner's relationship to "emptiness", namely the realm which cannot be known or experienced as an independent reality - although this is a theme central to the work of Russian mathematician V V Nalimov (80).

Experiencing the nature of this relationship is identified there as being the ultimate key to effective strategy. In the terms of this paper relating to such an "emptiness" raises problems of the same order as that of relating to hyle or Bohm's holomovement. It is interesting that the Institute of Cultural Affairs, an international nongovernmental organization with world-wide community development programmes, has made extensive use of Sun Tzu in elaborating their strategic thinking and of *The Five Rings* in elaborating their tactical approach. Figure 5 exercises is a metaphorical presentation of their insights.

Sun Tzu's set of precepts noted above draws attention to those compendia of fables and stories which have been used over the centuries to clarify strategic opportunities for a community or nation. They range from the Fables of Aesop, Lafontaine and Krylov, through the Mulla Nasrudin "teaching stories" deliberately developed by the Sufi's, to the Pali Buddhist Jataka tales. Such a format has stimulated Russell Ackoff, professor of systems science, to produce his own set of "fables", many of which are highly relevant to the problems of governance (72). The exploration may even be extended into the relevance of myths and legends to governance. Certainly in the absence of theory, such sets of insights have had to play a vital role in guiding the development of understanding about the opportunities and constraints of governance in a variety of fairly well-defined situations which are as real today as they were when they were formulated.

Insights: From classical metaphors ("the body politik")

The specific use of metaphor in relation to statecraft has a long history. Chinese use of metaphor has been noted above. The human body was of special importance as a metaphor for statecraft in the Renaissance (73).

As noted above, the attempt to code the social system (and its problems) back on to the human being would seem to be a conceptually elegant response to the problem of self-reflexiveness. There is also merit in relating a conscious pattern of significance to a substrate by which people are usually governed unconsciously. In Jungian terms this is an appropriate and fruitful form of marriage between conscious and unconscious elements. Humanity's inability to relate creatively to aspects of these unconscious elements (e.g. the environment and the reproductive



THE ART OF MANEUVER

- Absolute Creativity
- Transparentization of Do-ment
- Radical Effectivity

Universe I.
THE GROUND OF MANEUVER
foundations of action

A. THE ENEMY		Universe II. THE THEORETICS OF MANEUVER estimates of victory *				D. THE VOID		Universe III. THE PRACTICS OF MANEUVER employment of troops				G. THE GENERAL	
		B. THE CONTEXTUAL LEVELS		C. THE CALCULATED DEFINITIVES				E. THE VICTORIOUS EXECUTION		F. THE SITUATIONAL DISCERNMENT			
Historical Protagonist						Historical Endlessness						Historical Nobody	
ROUTINE	Everyday Constancy	BATTLEFRONT	Specific Target	TIMING	Avoids Opportunities	CREATIVE	Prophetic Voice	ADVANTAGEOUS	Know Victory	RADICAL	Actual Situation	DETACHED	Non-Offensive Stance
DEFENSIVENESS	Denies Action	MANEUVERS	Swift Action	DESIGNED	Not Routine	TENSION	Jarring Push	POSITIONING	Research Energy	EMPIRICISM	Know Battlefield	CREATIVITY	Radical Nonchalance
1.	Unbroken Tedium	7.	Instant Remaneuvering	13.	Creates Momentum	19.	Questioning Intrusion	25.	Know Advantage	31.	Continuous Homework	37.	Necessary Action
	Unaltered Circumstances		Flexible Reorganization		Sudden Victory		Adversity's Coefficient		Decision Judicious		Practical Model		Mystery Wield
STATIC	Professional Responsibility	THEATRE	Transitional Completion	WEAPONRY	Social Philosophy	HISTORICAL	Savage Justice	INDIRECT	Target Analysis	TACTICAL	Action Focus	FANATICAL	Maximal Engagement
BUREAUCRACY	Absentee Care	MANEUVERS	Comprehensive Arena	ORGANIZED	Disciplined Methods	NECESSITY	Denounces Inequality	APPROACH	No Threat	OBSESSION	Non Philosophical	DO-MENT	Final Responsibility
2.	Red Tape	8.	Particular Geography	14.	Public Prowess	20.	Dismisses Excuses	26.	Parries Excuses	32.	Relevant Details	38.	Total Expenditure
	Entrrenched Position		Uniqueness Capacity		Profound Humanness		Illuminates Decision		Soft Underbelly		Necessary Bracketing		Ultimate Encounter
FAILURE	Closed Mindset	GLOBAL	Inclusive Thrust	FORCES	Gradual Placement	RADICAL	Expanded Space	RAPID	Strike Force	TRANSRATIONAL	Whole Task	TRANSPARENT	Universal Case
MENTALITY	Fear Responsibility	MANEUVERS	Co-ordinated Priorities	DEPLOYED	Regular/ Special	XAVIERISM	Extended Time	MOVEMENT	Winning Story	SCHEMES	Component Parts	POSTURE	Structural Revolutionary
3.	Facile Alternatives	9.	Representational Design	15.	Advantage Position	21.	Claimed Turf	27.	Continual Examining	33.	Practical Viability	39.	Mystery Provokes
	Reduced Solutions		Limited Time		Avoids Confrontation		Ultimate Care		Radical Urgency		Verifiable Power		Self-Generating Frugality
OVERT	Nobody Cares	HISTORICAL	Foundational Forces	TERRAIN	Delimited Space	INCLUSIVE	Perfect Integrity	FOCUSED	One Aim	FUTURIC	Written Process	DISCIPLINED	Clear Intent
RESISTANCE	Professed Ignorance	TRENDS	Profound Stipulations	FAMILIAR	Public/ Private	UNITY	The Universal	OBJECTIVE	Many Directions	REFLECTION	Details List	SERVANT	Adapted Knowing
4.	Imagined Ostracism	10.	Keen Moment	16.	Established Clout	22.	The Particular	28.	Singular Necessity	34.	Forces Organized	40.	No Limits
	Deliberate Isolation		Actional Indicators		Ultimate Ground		Primal Intelligence		On Target		Motivating Poetry		Beyond Self
FORMAL	Parochial Focus	TONAL	Unifying Symbols	ENEMY	Delimited Weakness	UNKNOWN	The Sight	SURPRISE	Normal/ Extraordinary	IMPOSED	Rational Structure	RATIONAL	Trust Intuition
REDUCTIONISM	Denies Comprehensiveness	ASPECTS	Illuminating Design	PINPOINTED	Avoids Ostracism	COMPANION	The Edge	ATTACK	From Within	FINALITY	Death Ground	INTRUSION	See Through
5.	Single Concern	11.	Motivating Songs	17.	Indirect Action	23.	The Poet	29.	Solid Authorization	35.	Focused Indirection	41.	Profound Consciousness
	Status Obscure		Catalytic Rituals		Transformational Result		The Appointed		Sudden Strike		Appropriate Timing		Beyond Known
ETERNAL	No Election	PRIMAL	Personal Obligation	SELF	Troops Count	OTHER	The Way	SIMULTANEOUS	Multiple Directions	INTUITIONAL	One Task	VICTORIOUS	One Life
CONTRADICTION	Multiple Priorities	CONSCIOUSNESS	Personal Accountability	KNOWN	Spirit Resolve	WORLDLINESS	The Mystery	ASSAULT	Approaches Outflanking	CONFIDENCE	Coactive Teamwork	RESOLVE	Trust Intuition
6.	Limited Context	12.	Personal Responsibility	18.	Discipline Level	24.	The Consciousness	30.	Thrust Surrounding	36.	Generative Gestalt	42.	One Word
	Disputed Mission		Personal Intelligence		Creative Capacity		The Care		Drive		Holding Clutch		The Word

instinct) several aggravates the problematique (e.g. environmental degradation and the population explosion).

Such an approach is not as incongruous as might be suspected. It has been suggested that the body is an "ideological variable" (74). Mary Douglas, an anthropologist, has argued that the organic system provides an analogy of the social system which, other things being equal, is used in the same way and understood in the same way all over the world. The human body is capable of furnishing a natural system of symbols, but the problem is to identify the elements in the social dimension which are reflected in views of how the body should function or how its waste-products should be judged (75). In a more recent study she points out that according to the "purity rule":

"the more the social situation exerts pressure on persons involved in it, the more the social demand for conformity tends to be expressed by a demand for physical control. Bodily processes are more ignored and more firmly set outside the social discourse, the more the latter is important. A natural way of investing a social occasion with dignity is to hide organic processes". (76, p.12)

But such dignity, despite its value, is essentially static and conservative, denying the dynamics of development, decay and renewal - more effectively contained by the essentially human, and often "vulgar" folk rituals of carnival, etc. It is then easier to understand how oversimplified and "inhuman" our highest ideals become when they reject such bodily functions as digestion, excretion and intercourse. Douglas points out how uncomfortable some religions are with the association of such processes with a deity and consequently the difficulty they have in dealing with whatever they reject. Similarly in society's major institutions, there is no explicit conceptual link with that of themselves which they reject. The attitude towards bodily waste products is indicative of the degree of creative acceptance of the "loss" portion of any cycle.

Douglas identifies four distinctive systems of natural symbols, namely social systems in which the image of the body is used in different ways to reflect and enhance each person's experience of society:

1. Body conceived as an organ of communication: *"The major preoccupations will be with its functioning effectively; the relation of head to subordinate members will be a model of the central control system, the favourite metaphors of statecraft will harp upon the flow of blood in the arteries, sustenance and restoration of strength."*
2. Body seen as a vehicle of life: *As such "it will be vulnerable in different ways. The dangers to it will come... from failure to control the quality of what it absorbs through the orifices; fear of poisoning, protection of boundaries, aversion to bodily waste products, and medical theory that enjoins frequent purging."*
3. Practical concern with possible uses of bodily rejects: *As such it will be "very cool about recycling waste matter and about the pay-off from such practices... In the control areas of this society controversies about spirit and matter will scarcely arise."*
4. Life seen as purely spiritual, and the body as irrelevant matter: *"In these types of social experience, a person feels that his personal relations, so inexplicably unprofitable, are in the sinister grip of a social system. It follows that the body tends to serve as a symbol of evil, as a structured system contrasted with pure spirit which by its nature is free and undifferentiated. The millennialist... believes in a Utopian world in which goodness of heart can prevail without institutional devices." (76, p.16-17)*

Clearly such distinct attitudes can well determine distinct political tendencies. It is unfortunate that Douglas did not broaden the scope of her study to include sexual behaviour. For although she recognizes its fundamental importance (76, p.93), she confines her concern to the significance of attitudes to the waste-products (of a single body) in determining behaviour within family systems. An equivalent focus on sexual behaviour would provide insight into the ways in which attitudes to alternation between perspectives are similarly encoded and into the

possibility of employing courtship and sexual symbols to enrich understanding of alternation processes in society.

The limitation of such approaches, as they have been developed, is that they are essentially descriptive and deterministic. In their present form they do not show how people can deliberately use such metaphors in the processes of governance.

Insights: From corporation strategy making

As has been frequently noted, many large corporations are economically of comparable or greater significance than the smaller nation-states. The strategic and management problems of such corporations have many points of similarity to those of governance in general.

Presumably, with the current enthusiasm for Japanese management models, some Western management education programmes offer courses on the traditional metaphor-based manuals of strategy discussed earlier. This would be the exception however, for although management literature, as with most literature, makes extensive use of metaphor, this tends to be present purely for communication purposes. Indeed, as with any professional literature, efforts are made to avoid the deliberate use of metaphor.

The situation is very different in verbal interchanges between managers and those concerned with corporate strategy. Extensive use is made of metaphor to clarify strategy. Of special interest is the extent to which sporting and military terms are used as metaphors. Again the question is whether such metaphors have a purely communicative function or whether they are essential to the kinds of strategy that are formulated. Is the famous question of the Duke of Wellington: "*The battle of Waterloo was won on the playing fields of Eton*" to be understood as signifying that the strategic skills were honed and defined through sport which then became a metaphor through which the battle was perceived and conducted? Is it in this sense that the merit of character formation through sport is to be appreciated - as providing a neurolinguistic understanding of certain metaphors?

Whilst sport, whether in the intricacies of American football or the subtleties of cricket, can provide a rich source of metaphors, the question remains whether such metaphors offer the variety and the richness appropriate to governance of complex societies. It is possible that Japanese skills in governance are superior, at least within their own culture, precisely because they draw on metaphors of greater depth and richness. These points also raise the question as to the best methods for enabling students to acquire access to metaphors which will be valuable to them subsequently in strategic decision-making. Sport and military service may in this sense have greater relevance than poetry. The special advantage of the Japanese lies in their blending of martial arts (aikido, kendo, etc) with poetics, philosophy and the aesthetics of the tea ceremony, as exemplified by bushido as a whole approach to human and social development.

Insights from the arts: fiction, poetry and music

It is one of the recognized functions of the arts to give form to visions of new ways of organizing perceptions of the world. The arts are therefore an important resource in exploring new visions of social organization and visions of the future. As such it might be expected that they would suggest new approaches to governance.

In the case of fiction this has taken the form of description of utopias or, more recently, the scenarios explored in works of science fiction. To the extent that literature fulfills its function of prefiguring new modes of governance, it is from such writings that insights should be available. But despite an incredible range of scenarios covering the far distant future of a multitude of galaxies, the main innovations explored are technical.

The social innovations tend to be more the consequences of adaptations to alien environments rather than significant innovations in the way humans might organize their relationships. But

most disappointing is the poverty of insight into new modes of governance. Writers tend to project onto the distant future modes of governance characteristic of the classical Roman Senate, the US Government and the United Nations, reinforced by electronic gimmicks (many of which are already available) - or fall back on governance through a mega-computer. This is regrettable because such literature reinforces the poverty of expectations with respect to governance and is no stimulant to creative thinking on the matter.

One situation explored by a number of writers is however of relevance to comprehending complexity. That is the problem of piloting or navigating a spacecraft through "hyperspace" or "sub-space", as imagined in the light of recent advances in theoretical physics and mathematics. Because of the inherent complexity of such environments, several writers have explored the possibility that pilots and navigators might choose appropriate metaphors through which to perceive and order their task in relation to that complexity - for example, flying like a bird, windsurfing, swimming like a fish, tunneling like a mole, etc. The mass of data input, otherwise completely unmanageable is then channelled to the pilot in the form of appropriate sensory inputs to the nerve synapses corresponding to his "wings" or his "fins". The perceptions through the chosen metaphor are assisted by artificial intelligence software. The pilot switches between metaphors according to the nature of the hyperspace terrain. Such speculations do at least stimulate imagination concerning a possible marriage between metaphor and artificial intelligence in relation to governance.

Given the key position of poetry as a source of metaphor, as well as the subtlety of insights attributed to poets, one might expect the existence of poetic insights into the problem of governance. One interesting initiative in this connection is the multi-lingual compilation by V S M de Guinzbourg entitled the *"Wit and Wisdom of the United Nations"* (77). Whilst on the staff of the UN Secretariat, he collected proverbs and apothegms on diplomacy, some of them poetic in form. Of greater interest is the little known novel by the English Poet Laureate, Robert Graves, entitled "....." (78). This is in effect a study of governance through poetry.

In explaining why "we are our own metaphor", biologist Gregory Bateson pointed out to a conference on the effects of conscious purpose on human adaptation that:

"One reason why poetry is important for finding out about the world is because in poetry a set of relationships get mapped onto a level of diversity in us that we don't ordinarily have access to. We bring it out in poetry. We can give to each other in poetry the access to a set of relationships in the other person and in the world that we're not usually conscious of in ourselves. So we need poetry as knowledge about the world and about ourselves, because of this mapping from complexity to complexity." (288-289)

Bateson is thus pointing to the advantages of poetry in providing access to a level of complexity in people of which they are not normally aware. This could well be of significance for the governance of social processes characterized by patterns of relationships normally too complex for the mind to grasp. Of special interest in comprehending non-linear cyclic processes in relation to linear thinking, are the potential insights arising from the relation of rhythm to metre in poetry. In this sense the current "spastic" development of society, as a victim of economic cycles, may be seen as resulting from an a-rhythmic approach to governance.

The insights to be derived from music in this connection have been explored by Jacques Attali, a key advisor of François Mitterand. In a study entitled *"Bruits"*, he demonstrates how the forms of musical organization pre-figure historically the acceptable forms of social organization and governance (79). The organization of music thus functions as a metaphor through which new social patterns become acceptable: *"On peut montrer que l'essentiel de la politique du XXe siècle est dans la science économique du XIXe siècle, elle-même contenu dans la musique du XVIIIe, que la crise de l'harmonie à Vienne au début du XXe siècle annonce celles des grands équilibres économiques, que le hit parade préfigure aujourd'hui l'évolution de l'économie dans les sociétés industrielles."*

The question is how society can make better use of such artistic insights, before rather than after suffering spastically through crises, for which those insights offer remedial patterns of organization of a more appropriate order of complexity - and which touch and motivate people more effectively.

V GOVERNANCE THROUGH METAPHOR

Phases in the metaphoric cycle

Although it is clear from the earlier sections and from an extensive literature (19), that metaphor permeates daily speech, even in professional milieux, it is important to distinguish between "superficial" uses of metaphor and those of significance to governance. An initial distinction was made above between a "communicative" function and an "initiatory" function. This needs to be articulated to a greater degree to clarify the range of uses of metaphor, especially if this helps to show how metaphors emerge and acquire progressively greater significance for the core processes of governance.

As a first step in this direction, Figure 6 is a further adaption of a table originally presented elsewhere (23) as an adaption of work by Arthur Young (81). His work constitutes a novel approach "g-a" to the learning cycle as a learning action cycle through a new interpretation of the set of 12 "measure formulae" through which material phenomena are observed, acted upon and controlled in physics and engineering. These he portrays as corresponding to a series of interdependent phases in a learning-action cycle. Of special interest in connection with sustainable development is, the significance he attaches to the sequence of movement around the cycle:

- (a) one direction involving essentially unremembered experience-without-learning (implying subsequent recapitulation: *"Those who cannot remember the past are condemned to repeat it"*);
- (b) the other direction involving conscious-learning-action (implying rediscovery as in T S Eliot's: *"And the end of all our exploring will be to arrive where we started and know the place for the first time"*).

The version of the table presented here has been adapted by introducing into each of the 12 phases the relationship to metaphor and the manner in which it is used. Additional labels to the columns have been given on the basis of Buttimer's clustering of professional roles in relationship to planning or government service (60), namely:

- (a) Poesis: evolving a sense of place, meaning of landscape and civilization;
- (b) Paideia: teaching and documentary work;
- (c) Ergon: practical application of discipline to solution of social and environmental problems;
- (d) Logos: promotion of analytical rigour and theory building;

Additional labels given to the rows are:

- (a) Responsiveness: implying sensitivity to condition;
- (b) Patterning: involving imposition of pattern, in this case metaphor or patterns of metaphors;
- (c) Identification: implying identification with a metaphor or embodiment of it.

The earlier distinction made between the "communicative" and the "initiatory" functions determine whether the phases are encountered, in Young's terms, in an unconscious action-without-learning mode or in a conscious learning mode. These correspond to the much-quoted distinction made in the report to the Club of Rome "No limits to learning" (82) between "maintenance learning" (associated with adaptive action) and "innovative learning" (especially associated with change in response to crisis): *"Innovative learning is problem formulating and clustering. Its main attributes are integration, synthesis, and the broadening*

		POESIS		PAIDEIA	ERGON	LOGOS
Time-binding learning	Space-binding learning	Maintenance learning-action	Unconscious registration of information	Homeostatic equilibrium Unconscious adaptation	Auto-catalytic response Self-impulsion	Uncoordinated action Victim of discontinuity
		Innovative learning-action	Timeless awareness Non-duration	Conscious adaptive response Awareness	Comparison with norms or memory of previous experience Self-awareness	Comparison with previous comparisons Awareness of self-awareness Transcended discontinuity
Unconscious (In-volution)	Conscious (Re-volution)	Symbol	T ⁰	T ⁻¹	T ⁻²	T ⁻³
Unintended shift of - perspective - position - reference Displacement of focus	Intentional shift of - perspective - position - reference Range of conscious attention span "Distance" from object of focus	M ⁰ L Acts Abstract Schematic Responsiveness	L Observation; act of considering; position determination; reactive learning based on immediate registration of phenomena; assessment of distance; "sizing up" Recognition of complexity or incomprehension	L/T Adaptive change; reaction; passive adaptation or change of position in response to changing circumstances. Recognition of inadequacy of current metaphors	L/T ² Spontaneous initiation of transformative action; commitment to a new course of action Action guided by metaphor and implicit in it	L/T ³ Control of transformative action Dynamic control through a range of metaphors
Unconscious impression of significance	(See MLT ⁰)	ML States Motivated Considered Patterning	ML Recognition of moment(ousness) relevance (as related to leverage), significance (as in "matters of great moment") weight of facts; bringing matters into focus Discovery of an adequate metaphor	ML/T Recognition of the momentum (of an issue) resulting from a change, namely the consequential transformation of awareness or perspective Discovery of a more significant metaphor	ML/T ² Forcefulness engendered, experienced or embodied as as a result of transformative action; constructive (or disruptive) action potential; enhanced sense of being Empowerment by metaphoric pattern	ML/T ³ Establishment of disciplined pattern of response; consolidated or harmonious control of action potential; holding forces in check Establishment of pattern of metaphors
Subject to an unintended shift of perspective	Projection of an intended shift of perspective into reality	ML ² Relationships Application Follow-through Commitment Identification	ML ² Faith in current paradigm or perception of reality; unexamined or habitual commitment to a process projection, or understanding, irrespective of inconsistent disturbing factors Commitment to a metaphor	ML ² /T Decision or impulse to act or initiate a process determining the future Decision-making catalyzed by metaphor	ML ² /T ² Achievement of a desired result by application of understanding (and adjustment of implicit beliefs) in response to external factors; working action on reality Implementation through metaphors	ML ² /T ³ Power of acquired knowledge know-how; integrated or embodied experience; capacity (including that of not acting); non-action Conscious embodiment of pattern of metaphors
Unexplained problems Imponderables External constraints	Mass of information Amassed experience Internal constraints Mass of evidence "Matter of fact"	M				

Figure 6

Figure 1. Tentative characteristics of phases in 12-phase learning/action cycles (adapted and developed from Young (68), as mentioned in entry KD2275)
Distinct strategies may be used to explore these, as indicated in Figures 2a and 2b

of horizons. It operates in open situations or open systems. Its meaning derives from dissonance among contexts. It leads to critical questioning of conventional assumptions behind traditional thoughts and actions, focusing on necessary changes. Its values are not constant, but rather shifting. Innovative learning advances our thinking by reconstructing wholes, not by fragmenting reality... (44, p.42). The labels "maintenance learning-action" and "innovative learning-action" have therefore been added to distinguish between the two sets of labels at the top of each column. In a sense each phase may be encountered either without conscious awareness of with it.

So, for example, in Phase 2 the discovery of an adequate metaphor may involve either of the following:

(a) Purely communicative skills, selecting among ways of clarifying a point to facilitate communication, through the use of old metaphors familiar to the communicator - simply as a figure of speech, for decorative or rhetoric purposes. This phase would tend to follow Phase 3 in the action cycle in which commitment to some underlying metaphor had already been made and is not brought into question by the purely illustrative use of metaphor in Phase 2.

(b) Creative discovery of a new metaphor to order a set of phenomena. This phase would tend to follow Phase 1 in the learning cycle in which the problematic nature of the disordered phenomena has been a challenge. The new metaphor offers insight into a way of ordering which can be the basis for subsequent phases in the learning cycle (Phases 3,4, etc).

In order to bring out the significance of the maintenance and innovative approaches more clearly in relation to the dimension of Figure 6, a summary of functions associated with governance is presented in Figure 7.

In the case of Poesis (Phases 1-3 of Figure 6), for example, the maintenance or adaptive mode is characterized by the use of metaphor by public relations in all its forms, ranging from the most positive (eg. UN campaigns) to the most manipulative (eg. sloganeering, "hate campaigns", etc), designed to mobilize public opinion. The innovative mode is characterized by metaphor creation (especially involving poetry, music songs, imagery and symbols), typically associated in the mind of the creator with conversion to a new mode of perception or even to obsessive enchantment. (The high level of creativity involved in quality public relations may of course come under the second category for those involved in that creative process, but distribution or consumption of the product of process would come under the first category.)

The organization of the table is not supposed to suggest that the maintenance level is dysfunctional compared to the positive functions of the innovative level. Each has vital positive functions as well as lending itself to abuses and excesses. Again in the case of poesis, there is at present an excess of public relation of dubious value to the process of sustaining development, whereas although much creative effort is devoted to imagery, literature and song illustrative of the problems of development, its relationship to the process of governance receives little attention, thus encouraging creativity of a kind, which is completely unrelated to the epistemological challenge of governance.

Figure 7 may also be used to illustrate the opportunities and problems in the relation between the four functions. Several patterns of relationship may be distinguished in the table:

(a) Maintenance-learning orientation: this stresses the link between public relations, training, task execution and technocracy. This is a highly prevalent pattern in the international community's approach to sustaining development. It has been much criticized. At this point in time it is being reinforced by the trend towards right wing policies, on the other hand there is increasing international recognition that "cultural development" has been totally neglected in exploring approaches to sustainable development.

(b) Innovative-learning orientation: This stresses the link between creativity, education, change agents and statesmanship. It has been much favoured in various forms by alternative movements as a necessary corrective to the insensitivity and "soullessness" of the previous

Figure 7

Overview of relationships between social learning contexts (compared with key roles in a management team)

	POESIS	PAIDEIA	ERGON	LOGOS
Maintenance learning/action	Sloganeering Advertising Mobilization	Training	Bureaucracy Task executor	Know-how Technocracy Specialist
Innovative learning/action	Poetry Creativity Conversion Symbol	Education	Innovator Change agent Entrepreneur	Know-why Strategic discernment Statesmanship "Conseil des sages" Charismatic leadership "Eminence grise"
Maintenance learning/action	Team worker	Company worker	Completer Finisher	Monitor Evaluator
Innovative learning/action	Plant	Resource investigator	Shaper	Chairman

pattern. The advocates of this pattern often fail to perceive the practical necessity of the elements in the previous pattern, as a result this innovative-learning pattern is easily represented as idealistic and unrealistic.

(c) Adaptive exploitation of innovation: This focuses on the adaption of innovation in such forms as creativity training, management education, promotion of technological innovation (venture capital etc), and personality endorsement campaigns (personality cults, fashion setters, guru-based groups, etc). Although often highly successful in economic terms, there is little recognition of the weaknesses inherent in the limited focus and inability to establish a relationship to the cycle as a whole.

(d) Regressive exploitation of innovation: This is the use of creative insights and innovations to reinforce reductionist tendencies.

Modes of metaphor identification

For metaphors to be of more active and explicit significance to governance, great care must be taken to distinguish between "casual" use of metaphors for ad hoc illustrative purposes and "deliberate" use of metaphor to order the perception of whole systems of relationships, whether for the discussion of an agenda point, for the duration of a conference, for the implementation of a strategy or for a complete cycle of governance. Clearly any casual use can easily be dismissed with the pejorative phrase "mere figure of speech", which can be easily be seen as indicative of unprofessional argument in any formal decision-making environment. It is certainly not something which professional support staff are free to indulge in during their presentations - however much such metaphors are used by politicians and statesmen in public debate.

For those holding that science is a metaphor, the question arises as to how paradigms and models are related to such metaphors. Again, as Buttimer notes: *"Metaphor, it has been claimed, touches a deeper level of understanding than "paradigm", for it points to the process of learning and discovery - to those analogical leaps from the familiar to the unfamiliar which rally imagination and emotion as well as intellect"* (59).

There are the vested interests in manipulating and defending the distinctions between metaphor, symbol, paradigm, model and analogy. As David MacDermott points out in identifying a set of axioms concerning metaphors: *"Grammarians, literacy scholars and rhetoricians have been defining, refining and confining the basic process of metaphor for so many centuries, that now they have a whole catalog of esoteric terms, such as: synecdoche, mimesis, paradigm, metonymy, analogy, prosopeia, hyberbole... This proliferation of articulated terms may bring joy to the hearths of those who belong to the cult of specialism, but it can only result in disappointment for others who, like myself, want to become aware of generic characteristics, in addition to those which are specific "* (96). Some assumptions must therefore be made to extract those insights of relevance to governance. Perhaps the best compromise lies in assuming that some metaphors, at least, can be used as symbols, paradigms, models and analogies, whether simultaneously or under different circumstances. The kind of metaphor of value to the processes of governance would then be one which:

- (a) clarified the dimensions of a new framework, as an organizing image - the paradigm function;
- (b) provided a sustained and systematic elaboration of that framework - the modelling function;
- (c) indicated specific analogies (or isomorphisms) which could be usefully explored;
- (d) constituted an attractively evocative symbol of a coherent and internally consistent approach;

but without losing the characteristics, so important to metaphor, of evoking feelings, attitudes, participation and commitment, whilst remaining faithful to concrete human experience.

The vital importance of the latter dimensions to those who mould the major policy options through various processes of governance has been strongly emphasized by Harold Lasswell: *"Why do we put so much emphasis on audio-visual means of portraying goal, trend, condition, projection, and alternative? Partly because so many valuable participants in decision-making have dramatizing imaginations. They are not enamoured of numbers or of analytic abstractions. They are at their best in deliberations that encourage contextuality by a varied repertory of means and where an immediate sense of time, space and figure is retained"* (97)

It is important to stress that the focus on the metaphoric dimensions does not in any way deny the importance of the modelling function when conceived non-metaphorically as a purely conceptual device (e.g. as in econometrics, global modelling, etc.) The point is rather that in order to present and explain such models successfully to those preoccupied with the many dimensions of governance, they must anyway be imbued with metaphoric dimensions - however distasteful this may be to modelling purists. But for those concerned with governance, it is precisely through imbuing the models with metaphoric dimensions that they become meaningful and can be related, through the political insight and experience of the governors to concrete realities which models, as abstractions, do not fully take into account. It is the ability of the governors to project themselves into the metaphor which enables them to find ways of fitting the model to the decision-making realities of the world they are dealing with and to the mindsets of the governed. Both model and metaphor are epistemological crutches - one facilitating left-hemisphere information processing and the other right-hemisphere processing. As Jeremy Cambell says: *"Another kind of context supplied by the right brain comes from its superior grasp of metaphor"* (98)

Expressed in these terms, it becomes clearer that many of the inadequacies of modelling for governance are precisely due to the lack of attention to the need to imbue them with metaphoric dimensions. Equally many of the inadequacies of metaphors for governance are due to the lack of attention to the need to imbue them with modelling dimensions. In metaphorical terms, the former furnish clothes of appropriate strength, but which are so uncomfortable and ugly, that nobody is inclined to try them on or be seen wearing them. Whereas the latter furnish clothes which are a delight to try on, but cannot be taken more seriously than fancy dress, because they are not appropriate to the varieties of weather conditions which they must withstand. This is a problem of design.

For both the governors and the governed it is a question of the extent to which they are able to "get into" the "metaphor-model".

In this light Figure 5 and Figure 6 can be interpreted as indicating different degrees and kinds of participation in the metaphor-model ranging through:

- (a) Poesis (Phases 1 to 3): Indicative, allusive and enchanting and possibly abusive;
- (b) Paideia (Phases 4 to 6): Descriptive and explanatory, and possibly disinformative;
- (c) Ergon (Phases 7 to 9): Motivating and heuristic, possibly reinforcing habitual routine;
- (d) Logos (Phases 10 to 12): Paradigmatic and world-view.

This question of "getting into" recalls Buttimer's reference, noted, above to the most profound transformation in twentieth century knowledge being the movement from observation (of reality) to participation (in reality) - a theme explored by Michael Polanyi (99). What degrees of "epistemological participation" does a "metaphor-model" offer? Are there more powerful forms of participation, or at least forms more powerful in different circumstances? These need not be trivial questions for governance, because in a sense epistemological participation can be more powerfully attractive than participation limited to political processes, which it effectively underlies.

It is interesting, with respect to such collective learning questions, that the American Cybernetic Society award for the best paper of the year has just gone to Katleen Forsythe, for

TABLE 3 DIMENSIONS OF THE INFORMATION SOCIETY (tentative)	HARDWARE (Devices or Systems) Transmitters Receivers Computers Satellite networks Telex Telephones Radios Facsimile Recording equipment Videotext	GROUPWARE (Formal and Informal) Institutions Organizations Groups Task forces Communities Family structures Campaigns Networks	CONCEPTWARE (Context-dependent or Transconceptual) Classification schemes Conceptual relationships Patterns Symbols Paradigms Models Scenarios Metaphors
MODE Media - sound - image - sound/image - print Data - text - image - sound - graphics Unmediated - voice - gesture	TECHNOLOGICAL CRITERIA Issues: - availability (incl. cost) - computability - appropriateness (incl. cost) - maintenance (incl. parts) - dependency - abuse Possibilities: - enables new systems <div style="text-align: right;">ARENA I</div>	MANAGEMENT (ORG. DEV.) CRITERIA Issues: - adaptation of organization - appropriateness - erosion of traditional forms - dependency on media - vulnerability to media - manipulation of media/data Possibilities: - new modes of group communication - mode-engendered organizations <div style="text-align: right;">ARENA IV</div>	PUBLIC RELATIONS (MARKETING) CRITERIA Issues: - identifying viable media "concepts" - manipulative concepts - dehumanizing modes of communication - erosion of traditional order - technocratic exploitation Possibilities: - new media "concepts" - new paradigms, metaphors <div style="text-align: right;">ARENA V</div>
SOFTWARE (Programs) Non-computer - rules - procedures - music Computer - word/data processing - numbers - text - image - sound - graphs - artificial intelligence	PROGRAMMING CRITERIA Issues: - compatibility - effectiveness - user-friendliness - "bugs" - upgrading constraints - abuse and fraud - penetration and sabotage Possibilities: - enables new applications - desk top publishing - computer conferencing <div style="text-align: right;">ARENA II</div>	ORGANIZATION APPROPRIATENESS Issues: - search for "alternative" forms - requisite group complexity - minimalistic innovation Possibilities: - "global village" - software-engendered groups (e.g. in CC) - meta-stable coalitions - resonance hybrid groups <div style="text-align: right;">ARENA VI</div>	PARADIGM APPROPRIATENESS Issues: - handling complexity - appropriateness of classic models - operationalizing new paradigms - requisite conceptual complexity - naive holism - reinforce. of reductionist order - reinforcement of linear thinking Possibilities: - reinforcement of lateral thinking - new concept patterns - software-engendered - meta-stable - resonance hybrids <div style="text-align: right;">ARENA VIII</div>
CONTENT Hard data - facts - issues - socio-economic problems Soft data - values - opinions - psycho-social problems - reservations - visions - proposals	PRODUCTION (MARKETING) CRITERIA Issues: - hardware/content compatibility - cultural compatibility - "packaged culture" - erosion of traditional values - media-induced violence - electronic surveillance - "blip culture" Possibilities: - learning games - "telephone trees" - CB or CC exchanges <div style="text-align: right;">ARENA III</div>	INFORMATION APPROPRIATENESS Issues: - empire-building, territoriality - appropriateness of organizations to content - disinformation, censorship Possibilities: - group structure equivalent to substantive relation - new kinds of organization for existing content - new kinds of content for existing organization <div style="text-align: right;">ARENA VII</div>	SELF-REFERENTIAL CRITERIA Issues: - sensitivity to alternative paradigms - comprehension of complexity - single-factor explanations - indiscriminate relativism - self-reference Possibilities: - applied metaphors - embodying discontinuity - policy alternation - patterns of metaphors <div style="text-align: right;">ARENA IX</div>

----- Adaptive Group (Arenas I-V)

----- Innovative Group (Arenas VI-VIII)

----- Transformative Group (Arena IX)

a paper entitled: *"Cathedrals of the Minds; the architecture of metaphor in understanding learning"*. In it she points out, citing Bohm (15), that the issues of content and process are no longer the key issues in the new ways of thinking about learning. But content and process are now to be seen as two aspects of one whole movement.

"The fundamental difference in this new view of learning is to see analogical thinking as the architecture and analytical thinking as the engineering of our mind's view of the world. Thinking and learning become a dynamic "open" geometry (Fuller, 101) characterized by increasing complexity and transformation as a dissipative structure (Prigogine, 102) based on a kinetic, relational calculus (Pask, 103). The meta design is not built on inference and syllogism but on analogy and relation thus allowing form to develop from an underlying logic - the morphogenises of an idea. (Sheldrake, 104). Knowledge is seen not as an absolute to be known but always in relation to agreement and disagreement, to coherence and distinction in terms of individual, cultural and social points of view. The language we use to communicate then takes on a heightened importance (Wittgenstein, 105)) whether that be the language of words or the metaphor language of pattern (Alexander, 106). take

Fruitful avenues for further investigation

Possibilities for further research include:

(a) Identification of hidden policy metaphor: This could involve the development of a methodology to determine what metaphors were influencing or constraining the formulation of new policies. Such work can be seen as an aspect of that on work-related values as pioneered by Geert Hofstede (100). His work is more general however so it is a question of whether it is possible to identify particular metaphors which effectively engender and interrelate the sorts of values that he isolates;

(b) Identification of metaphors implicit in symbols of national identity: Each country, as well as many large international agencies, invests considerable resources in legitimating the symbols by which it identifies itself in the eyes both of those it groups and of equivalent groupings, with deliberate efforts to anchor such symbols as a focus of its cultural heritage or, more recently, its "corporate culture". This includes according special significance to national mottoes of which some examples are:

USA: E pluribus unum;

UK: Honi soit qui mal y pense;

France: Liberté, Egalité, Fraternité;

China:

USSR: Proletarians of the world unite.

The question is whether such mottoes are purely decorative devices or whether they are indicative of hidden metaphor influencing or constraining the fundamental approach to governance of a given country;

(c) Identification of metaphor implicit in any set of specialized agencies or government ministries: As pointed out in an earlier paper (4), it is not recognized, when advocating or imposing the use of particular sets of values, needs or programmes, that these effectively compete as functional substitutes in traditional societies with other sets of qualities and modes of action symbolized by hierarchies of gods or spiritual beings governing those qualities. The fundamental sets society now attempts to implant, whether embodied in the Specialized Agencies of the United Nations or the equivalent government ministries, are indeed designed to perform many of the regulatory functions previously ascribed to supernatural beings or potencies. Given the ersatz quality of the academic and administrative approaches to legitimating such initiatives, in contrast with the cultural

richness popularly associated in the past with pantheons or Camelot, for example, it is not surprising that public information programmes have relatively little success in arousing enthusiasm and generating "a political will to change".

The question is therefore how such agencies could make creative use of the metaphoric and symbolic dimensions to counteract their superficial and "bloodless" images, and give credibility to their initiatives. Given the criticisms of inefficiency and fragmentation, such investigations could uncover ways in which the metaphors governing agency action could be seen as components of a self-organizing organic pattern of fundamental significance - even to the governance of the planet as a whole. Such investigations could highlight the necessary functional complementarity between the metaphors in any such pattern;

(d) Investigation of problems as metaphors: It is seldom realized that a societal problem, as such, is a problem (at least to some degree) precisely because it escapes any attempt to encompass it within any conventional set of categories. Such problem cannot be "defined" in any scientific way (21). Global modelling initiatives do not model problems. Any problem emerges from human interpretation of the significance of the relationships modelled under certain conditions - they are not embodied in the model. As a psycho-social reality, people claim, however, to perceive problems. But as abstractions escaping definition, such problems could well be better understood as metaphors. It is indeed possible that metaphors offer a more fruitful way of handling them. It is arguable that the Chinese currently, emphasize this approach. Investigation is required into the strengths of this approach and its weakness (possibly as illustrated by Reagan's "evil empire" metaphor). Of special interest are the metaphors through which the global problematique may be perceived. Extremes include the "billiard ball" metaphor, the "network" metaphor (21), the "field metaphor" (with characteristic analogous to electromagnetic fields), and the "wave metaphor" (with problems emerging into prominence and then disappearing, as with political issues). Better metaphors, or more developed metaphors, could suggest more coherent strategies;

(e) Investigation of metaphors implicit in the vocabulary of development action: It is seldom realized that a significant proportion of organization vocabulary results from innovations made by the Cistercian Order of monks after the 12th century in an early form of transnational organization. The notions of "assembly", "commission", "constitution", "agenda" and "ballot", for example, derive from that context (86). Given the key role played by the limited vocabulary of international action and development action in general, it would be appropriate to explore what metaphors are hidden in that vocabulary - "organization", "programme", "congress", "in the field", etc. In some cases tracing the metaphor may enrich understanding (e.g. "organization"), in others dangerous limitations may become apparent (e.g. "project", "mobilization"). Such investigations may suggest the possibility of a richer vocabulary more appropriate to "marshalling" resources in support of development action;

(f) Investigation of metaphors implicit in management and policy-making jargon: As noted earlier managers, entrepreneurs and change agents make intensive use of metaphor in discussion their initiatives and the associated risks. One interesting example is that describing an initiative as "taking off", whether it then "flies" or "crashes", and whether it was flown "by the seat of the pants". It would be interesting to investigate whether the richness and value of this metaphor could be further developed by imbuing it with modelling dimensions (as suggested earlier). Whether as an airplane or a bird, further dimensions could be added to increase the match between the concrete actions, controlling initiatives and feedback requirements, and the way in which these are integrated within the flying metaphor. Developing such metaphors could offer a whole new approach to educating people in the art of taking initiative and entrepreneurship. Other interesting examples include "in the field" and "cultivating" contacts;

(g) Investigation of metaphors characteristic of complementary management team roles: A limited amount of research has been undertaken on the personality characteristics associated with the distinct roles required to build a successful team. Typically much of the earlier work focussed on building crews for strategic bomber planes. The more

interesting recent work on management teams has identified eight roles or functions (87). The question requiring investigation is whether managers performing such distinct roles can further increase their effectiveness by their use of more powerful metaphors, both as a personal creativity aid and as an aid to communication between members of the team. One of the advantages of such metaphors is that they can be used to encode both the positive qualities of the role and the characteristic weakness. An example of this is the "resource investigator" role involving a capacity for contacting people and exploring anything new, especially in response to a challenge. This is a well-known informal role in an army platoon during war-time (the person who can "obtain" a camera inside a prisoner of war camp.) Many metaphorical terms are used to describe it. The point is whether the distinct metaphors used are complementary or mutually undermining. At the community level the use of different animal totems within an Indian tribe as symbolizing a special function could provide insight of relevance to governance of contemporary society. At the international level is there any significance for governance in the relationship between the "eagle" (USA) and the "bear" (USSR)? What sort of "menagerie" or "ecosystem" is the United Nations in these terms?

(h) Investigation of metaphors characteristic of complementary management styles: As noted above at several points, although metaphors are frequently used even in management, the problem remains of establishing their use to the policy-making processes of governance. At this level distinct styles of management may be active or available as opportunities. One recent study by Charles Handy of the London Graduate School of Business Studies (*"The Gods of Management; who they are, how they work and why they fail"* (88)) uses four Greek deities to characterize the different styles of management. The four gods (and the associated organizational styles) are: Zeus (club), Apollo (role), Athena (task) and Dionysus (existential). He notes: *"Each of the four gods gives its name to a cult or philosophy of management and to an organizational culture. Each of these cultures has also got a formal, more technical name, as well as a diagrammatic picture. The names, picture and Greek God each carries its own overtones, and these overtones combine to build up the concept I am trying to convey. They also help to keep the ideas in one's memory. These names and signs and Gods do not amount to definitions, for the cultures cannot be precisely defined, only recognized when you see them... It is important to realize that each of these cultures, or ways of running things is good - for something."* (88, p.25-26). As he stresses the problem is to know how to choose which god for which circumstances. It is the constraints and opportunities of the process of choosing that need to be embodied in metaphor and which call for further investigation;

(i) Investigation of the use of metaphor in management education: Considerable resources are devoted to management education in the form of programmes in creativity training, lateral thinking and the like. Although educational material to encourage use of metaphors could easily be developed to enrich peoples response to their social environment, such material does not appear to exist. The only exception appears to be the workbooks explicitly designed by W J Gordon to increase use of figurative language in creative thinking (89,90). He and others described the significance of metaphor for learning (91,92). But there appear to have been no studies of its relevance for societal learning - a major concern of the United Nations University - nor for learning in and through the process of governance. Initial investigation is needed to establish the limitations in the manner in which metaphor has been introduced in educational environments in order to identify opportunities for further investigation, especially in relationship to creativity in governance.

VI ENVISIONING GOVERNANCE IN THE FUTURE

Meaningful opportunities

Much has been made in recent years of the emergence of the "information society". Enthusiasts have envisaged this resulting in a "global village", given the facility of information access and transfer. Great care must be taken in building on such hopes in envisioning new forms of governance.

In order to identify the opportunity for the emergence of a form of governance which responds with requisite variety to the issues identified in this paper, it is useful to distinguish three sets of arenas as presented in Figure 8, originally developed for an earlier paper on the information society (93). The table identifies 9 arenas and groups them into an: Adaptive Group (I-V), an Innovative Group (VI-VIII), and a Transformative Group (IX). Most effort and attention concerning the information society focuses on the Adaptive Group. Some effort is devoted to the Innovative Group, whilst very little is devoted to the Transformative Group.

For there to be a real breakthrough in processes of governance, there has to be a real breakthrough in the movement of meaning in society. The mere movement of information (as represented by the Adaptive Group) will not suffice, even if it is described as the "dissemination of knowledge". It leads to information overload and information underuse (a project of the United Nations University).

It is at the Innovative Group level that new key concepts emerge and, in the case of the international community, result in new programmes and institutions with new emphases. The manner in which this occurs at the moment is inadequate to the challenge. One useful way to envision the governance of the future is in contrast to Johan Galtung's insightful but disillusioned analysis of "concept careers" within the UN system, meaning both how innovative concepts undergo a career of stages or phases, a life-cycle in other words, and how concepts may move from one organization to another. Thus, as to their life-cycle at present, he notes:

- a fresh concept is co-opted into the system from the outside (almost never from the inside because the inside is not creative enough for the reasons mentioned). The concept is broad, unspecified, full of promises because of its (as yet) virgin character, capable of instilling some enthusiasm in people who do not suffer too much from a feeling of déjà-vu having been through a number of concept life cycles already. Examples: basic needs, self-reliance, new international economic order, appropriate technology, health for all, community participation, primary health care, inner/outer limits, common heritage of mankind;

- the organization receives the concept and it is built into preambles of resolutions; drafters and secretaries get dexterity in handling it. The demand then arises to make it more precise so that it can reappear in the operational part of a resolution. A number of studies are commissioned, very carefully avoiding too close contact with people and groups behind the more original formulations as "they do not need to be convinced." The concept thus moves from birth via adolescence to maturity, meaning that it has been changed sufficiently to become structure and culture compatible (it will not threaten states except states singled out by the majority to be threatened); the idiom will be that of the saxonian intellectual style, rich in documentation and poor in theory and insights; very precise but limited in connotations and emotive overtones; "politically adequate" meaning that it can be used to build consensus or dissent; depending on what is wanted where and when.

- From maturity to senescence and death is but a short step: the concept thus emasculated can no longer serve the purpose of renewal as what was new has largely been taken away and what was old has been added in its place - except, possibly, the term itself. Even the word will then, after a period of grace, tend to disappear, those who believe in it now no longer identify with it; those who did not get tired of saying "we knew it would not work, it did not stand the test of reality". In this phase outside originators of the concept may be called in for last ditch efforts of resuscitation, usually in vain. There is no official

funeral ceremony as the concept will linger on in some resolutions, but there will be a feeling of a void, of bereavement. Consequently, the search will be on, by concept scouts, for new concepts to kindle frustrated and sluggish consciences. And as a result-

- a fresh concept is co-opted into the system from the outside, e.g. one that has already been through its life cycle in another part of the UN system. For the rest read the story once more.

Nevertheless, each concept leaves some trace behind, more than its denigrators would like to believe, less than the protagonists might have hoped for. If this were not the case the cognitive framework for the system would have undergone no change during the 35 years of its existence". (58)

In the light of the arguments of this paper, the weakness of the system highlighted by Galtung is that it is focussed on concepts as they move into and out of fashion, rather than on the metaphor-models through which concepts emerge and may be associated. Effort is made to create the impression that such "concepts" as self-reliance should be understood as meaningful in their own right, as the product of academic, political and administrative expertise. At the same time, in order to communicate their significance and ensure support for them, they form the subject of public information programmes, documentaries, propaganda and sloganneering. Through this process they also become metaphors (as well as symbols of an approach which others attack). The problem is that as such these metaphor-models are not very rich. As conceptual models, they may be, but those dimensions are not well reflected in the metaphorical presentation that migrates through the field of public opinion - they were not designed to be. They do not excite the imagination of many as metaphors can.

These points make it possible to suggest that a desirable form of governance will focus its attention on the emergence and movement of policy-relevant metaphor-models in society. Instead of regretting or resisting the life-cycle that Galtung identifies, many possibilities lie in enhancing and ordering that movement, which is better conceived as the life-blood of the international community. The challenge lies in bonding metaphors to concepts to provide vehicles for the latter to move effectively through information and institutional systems - as motivating concepts rather than solely as part of the streams of information processed.

Governance is then fundamentally the process of ensuring the emergence and movement of such "guiding" metaphor-models through the information system, as well as their embodiment in organizational form. Such stewardship also requires sensitivity to the decreasing value of any metaphor-model (at the end of its current cycle) and the need to adapt institutions accordingly. The stewardship required of the metaphor-model "gene pool" is analogous to that currently called for in the care of tropical forest ecosystems - as the richest pools of species and as vital to the condition of the atmosphere.

The merit of this vision of governance is that it does not call for a radical transformation of institutions - which is unlikely in the absence of any major catastrophe. Rather it calls for a change in the way of thinking about what is circulated through society's information systems as the triggering force for any action. At present governance in the international community is haunted by a form of collective schizophrenia - a left-brain preoccupation with "serious" academic models and administrative programmes, and a right-brain preoccupation with the proclivities of public opinion avid for "meaningful" action (even if "sensational"). This schizophrenic battle between models and metaphors could be resolved by legitimating the metaphoric dimensions already so vital to any motivation of public opinion as a vehicle for the models. The needs to be a two-way flow however from model-to-metaphor and from metaphor-to-model, as in any interesting learning process.

In a sense this proposal is only radical in that it advocates the legitimation and improvement of processes which already occur - if only in the sterile and demotivating manner highlighted by Galtung. New metaphors are constantly emerging in the arts and sciences. They are used by politicians. Presumably some of them are used in the existing policy-making processes of governance. But the ecosystem of metaphor-models is an impoverished one. It is totally divorced from the cultural heritage of the world. In terms of Figure 7, there is a need to shift the

level of analysis to the Transformative Group (Arena IX). This shift is consistent with the analyses of the "post-modern" predicament (26).

The shift itself could be usefully clarified using metaphor-models, of which some 80 examples are given elsewhere (21).

Metaphor vulnerabilities

It is possible to elaborate a vision of desirable form of governance based on the meaningful movement of metaphor-models as discussed above. It was emphasized that the radicalness lay essentially in the approach to information rather than in insitutional change. The apparent similarity to the prevailing system, with all its defects, was also stressed.

This suggests the possibility of the emergence, or the existence already in some form, of highly undesirable forms of governance based on the deliberate design and manipulation of metaphor-models and the control of their movement through the international community. Because of the prevailing focus on conceptual models, whether for academic or ideological reasons, little attention is paid to the manner in which they lend themselves to manipulation as metaphor. If, as has been argued in this paper, metaphors can exert a more powerful influence than paradigmus, then the international community is highly vulnerable to manipulation at the metaphoric level. This is vaguely perceived in disguised form in concerns with "cultural imperialism" and various forms of "disinformation". But current processes of governance are more or less important in responding to them because the metaphoric level cannot be taken seriously at this time. It could be argued that "Dallas" and "Coca Cola" have a more powerful impact on the collective imagination than all the programmes of the international agencies combined.

This suggests the value of exploring the vulnerability of the world community to a modern equivalent of the metaphoric manipulation so succesfully carried out in Nazi Germany. The dividing line between "manipulation" and "challenging approach to human development" is difficult to establish using conceptual tools alone. "Dallas" and "Coca Cola" are perceived by many as desirable symbols of the American Way of Life. As the many analyses of the cult phenomenon in the West have shown, people are powerfully attracted by the metaphors embodied in such cults, more so than by sterile establishment concepts. Presumably the way is wide open for groups, with somewhat greater skills in manipulating metaphors, to mobilize society in totally unforeseeable ways and to ends quite in contrast with those currently conceived as desirable.

The problem is that any positive shift in the approach to governance will create awareness of the manipulative opportunities. So whether such a shift is initiated to counteract such manipulation or not, such manipulation will become increasingly evident. Many would argue that in current approaches to government, considerable attention is devoted to such covert manipulation, whatever the concepts or models overtly debated and implemented.

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