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Development of Model

Functional Synthesis of Viewpoints (Part II)

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Short Summary: A conceptual model is described to supply a context within which the increasingly isolated fields of knowledge and experience can be related without jeopardizing their autonomy. This is achieved by defining a space such that every viewpoint held in society is uniquely determined and related within that space in terms of its purpose and its ability to organize its subject matter. The properties of the space are such that developmental, directional, unitary and convergent features are emphasized with regard to society as a whole, groups and individuals. The final model effectively constitutes a map of functions or modes of experience by which individuals or groups can relate themselves to other viewpoints. An audio-visual display is described which could illustrate the model and an experiment to validate it is discussed. [NB Images of better quality available separately ([0.5mb pdf](#))]

This paper was one basis for the much later *Functional Classification in an Integrative Matrix of Human Preoccupations* (1982) used as the basis for the subject classification of the *Yearbook of International Organizations* and the *Encyclopedia of World Problems and Human Potential*

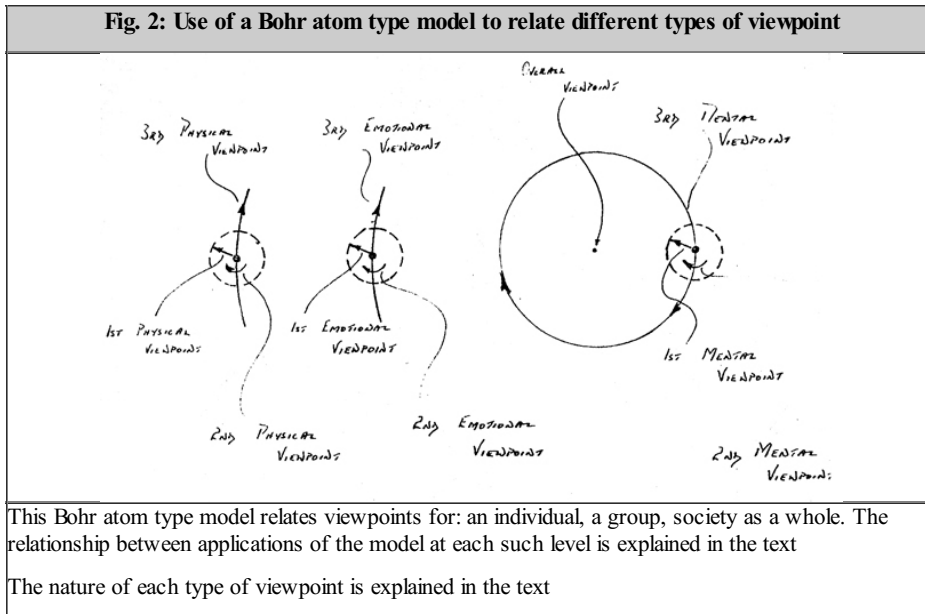
Contents

- [Introduction](#) (separate document)
- [Part I: Development of an initial classification of viewpoints](#) (separate document)
 - * [Problem](#)
 - * [Definitions](#)
 - * [Argument](#)
- [Part II: Development of model](#)
 - * [Viewpoint Model](#)
 - * [Noosphere Model](#)
 - * [Combined Model](#)
 - * [Nature of Space in Model](#)
- [Part III: Application of model](#) (separate document)
 - * [Mental Experience](#)
 - ** (a) [Society](#)
 - ** (b) [Individual in Society](#)
 - ** (c) [Change of Discipline](#)
 - ** (d) [Individual and Noosphere](#)
 - * [Physical and Emotional Experience](#)
 - * [Audio-Visual Facility to Clarify the Conceptual Model](#)
 - * [Experiment to Validate the Conceptual Model](#)
 - * [Comment](#)
- [Conclusion](#)
- [References](#)
- [Appendix I: Typology of Explanations](#)

PART II

Viewpoint model

Having shown the different types of viewpoint in Part I, a means of representing the relationship between them in a simple physical model, is required. Note that at each of the physical, emotional and mental levels, the first two viewpoints are with reference to the experience at the level itself. The third viewpoints demand coordination from some other point which will effectively justify the existence of the level. For integrated experience, the three levels should be coordinated with respect to the same viewpoint. As a **first approximation** it seemed useful to represent this situation by a model analogous to that of the Bohr atom or solar system, both in the case of the individual and of society (and similarly of groups). This was suggested by the historical stages in development of knowledge of the solar system. See **Fig. 2**.

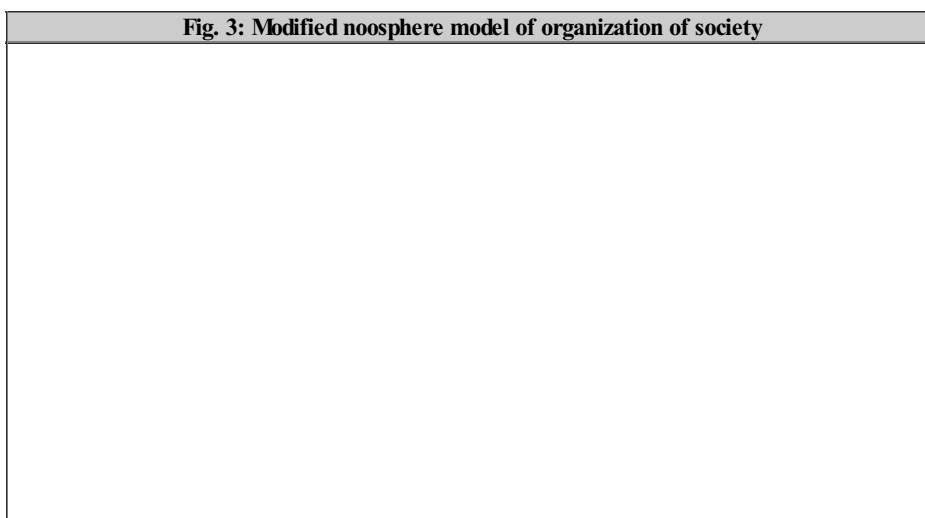


In **Fig.2** each sphere represents sensitivity to experience at a different level. The fact of this consciousness at a particular level results initially (e.g. in a growing child) in **involvement in the perceptual environment** and eventually in objectification of the environment and conceptual detachment from it in terms of the first viewpoints. At the same time there is a **spin effect** which fragmentises experience until it is integrated by recognition of cyclical pattern or rhythm in terms of the second viewpoints. Finally, there is also a revolution effect which requires integration 'of any experience of progression in the cycle in terms of the third viewpoints. These effects complicate understanding of the environment at each level on initial exposure to it. As a result assumptions have to be made that these effects do not exist, in order that direct experience can be ordered. Subsequently, as a result of development, these assumptions can be successively dropped, when it is possible to integrate the direct experience within the cyclic experience within experience of progression.

The viewpoint breakdown discussed in Part I was with respect to major viewpoint transitions. We believe that an analogous or parallel breakdown can be found for any subsidiary viewpoints that are taken up. First one is involved in the new relationship to data, then this is seen in relation to similar viewpoints, and finally one is aware of a progression or development to other viewpoints. The major transitions were discussed in order to clarify the introduction of the above model.

Noosphere model

Now, although the viewpoint model appears to provide a representation of the relationship between viewpoints, it is abstract in concept and does not stress any degree of unification and convergence, nor does it clearly link the individual to society. The method used by Teilhard de Chardin (ref. 26) to stress the significance of the unity of the world of thought was the concept of the noosphere - a sphere of thought building up around the Earth. In the terms in which we have distinguished emotional and mental experience, the noosphere may be visualised as consisting of two concentric spheres around the physical Earth (see **Fig. 3**).



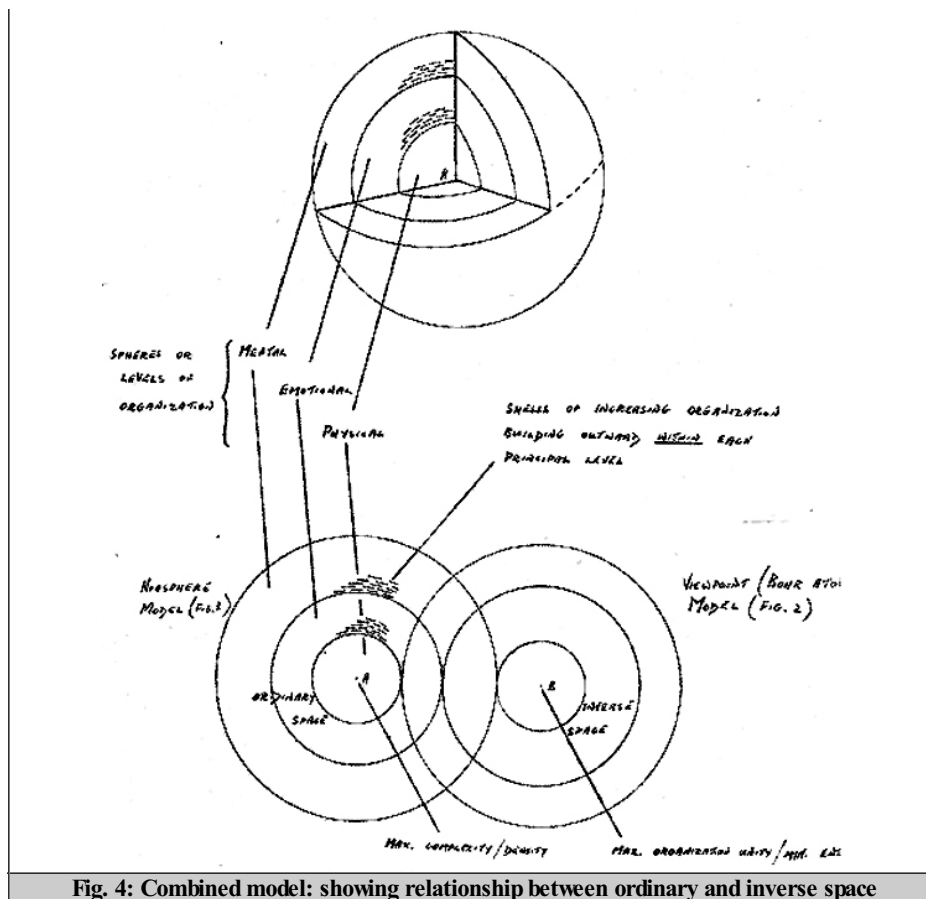


Fig. 4: Combined model: showing relationship between ordinary and inverse space

Layers within these spheres at increasing distance from the physical Earth may be thought of as representing an increasing degree of organization *sad* unification, or increasing 'entropy'. A 'personal noosphere' to represent an equivalent development in the life of the individual may be introduced in a corresponding manner. For as an individual grows, he has to acquire an increasingly powerful coordinative apparatus in an analogous manner.

This creation of increasingly elaborate organization may be thought of as taking place in each of the physical, emotional and mental spheres. In the case of society, the concept corresponds to Teilhard de Chardin's 'co-complexification' - but in this model it is a progressive complexification within each sphere, although physical organization *may* be accompanied or preceded by emotional and mental organization.

Now, to the extent that new layers are added or 'activated' with the passage of time, more embracing and fundamental unifying structures will be formed. In effect there is a convergence upon the conscious elucidation of the structure and reasoning behind every aspect of the functioning of society (or the individual) as the layers build up. It would seem that we could describe this as a sphere building **outward** which in some way was also building **inward** on itself. This seems to correspond to Teilhard de Chardin's concept of an '*enroulement organique sur soi-meme*'.

Combined model

Let us see whether we can combine this concept of unification and convergence with the coordinating and directional emphasis of the viewpoint model formulated earlier. We can define a relationship between two types of space (A and B), such that:

- (i) **every** point on the surface of a sphere in one space (A) is also, **at the same time**, a point on the surface of a sphere in the other space (B); (ii) points on **increasing** diameter concentric A spheres are points on **decreasing** concentric B spheres.

These two conditions result in a model which was first developed by Jacob Steiner (ref. 25).

The A space will be taken as our ordinary space centred, for simplicity's sake, upon the physical Earth and surrounded by the emotional and mental spheres, as described in the **noosphere model**. The B space therefore constitutes what we will term an **inverse space**. The relationship between the two spaces may be crudely represented by **Fig. 4**, but this fails to do justice to the fact that the centre of the B space can only be related mathematically to the A space - no two-dimensional drawing will suffice.

Now, it is only at the point of minimum 'entropy' for our society, the centre of the inverse space, that all individual and group views are reconciled with regard to experience in society. It is only from this viewpoint that the overall function of the individual in society and of society as a whole can be recognized. We will therefore consider the centre of the inverse space as the centre of both the individual and society **viewpoint models** developed earlier.

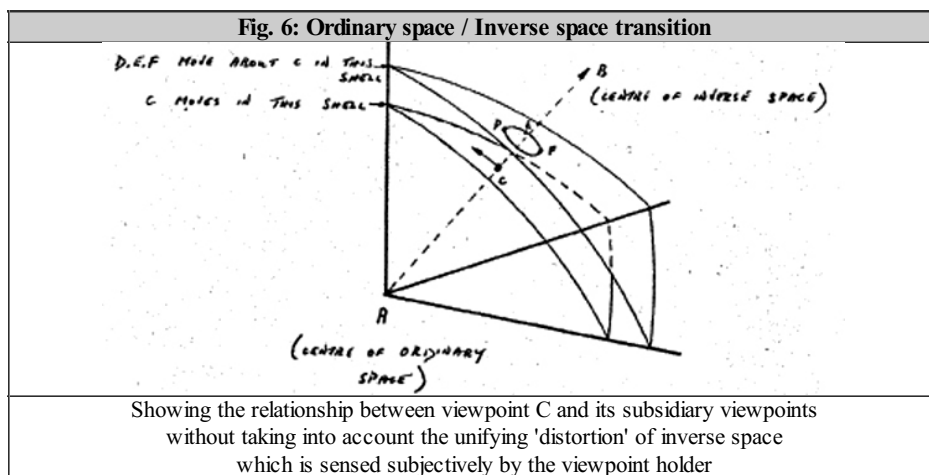
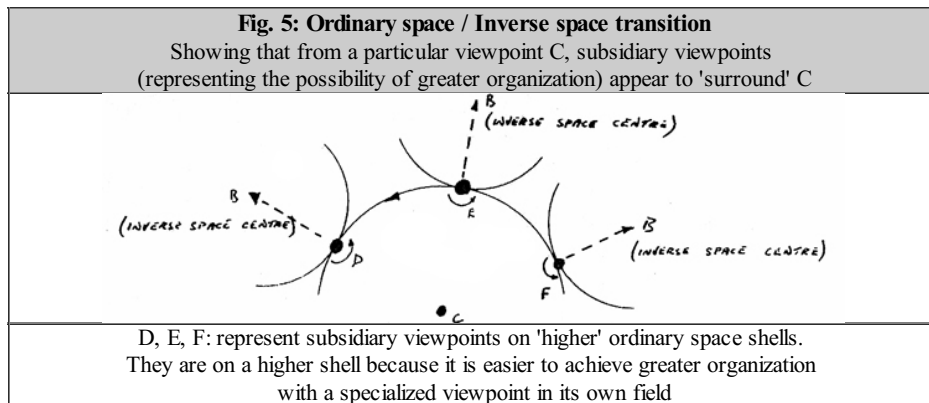
The centre of inverse space (or B space) may be considered to be related to Teilhard de Chardin's 'point Omega', for it is only when the potentialities of this point have been expressed or embodied in structure that society will be able to consciously fulfil and direct its

functions. (In religious terminology, the 'line' linking an individual's current viewpoint and this centre of inverse space represents the 'way to God', for it is only along this line that the existence and meaning of more comprehensive organizational structures may be increasingly understood.) The two spaces also give a physical representation of Teilhard de Chardin's centrifugal and centripetal forces, if we consider that each centre is a centre of attraction (attraction to mass and attraction to unity respectively). At the same time, the two spaces, as potential fields, are a representation of the two types of energy, physical (i.e. ordinary space) and 'psychical' (i.e. inverse space), which are mentioned by Teilhard de Chardin.

In summary, therefore, the remaining conditions defining the model are:

- (iii) 'mass' (-representing organization) is of such a nature that its 'density' (representing complexity) is proportional to its 'entropy';
- (iv) the centre of the A-space sphere is the point of maximum density, and the centre of the B-space sphere is the point of minimum entropy.

Having outlined the model and the nature of the two extreme centres, it is now necessary to explain its utility in emphasizing direction and synthesis at stages of organisation (physical, emotional, or mental) between the two extremes. For a particular level, say mental, it is clear that some organisational structures are more unifying than others. Einstein's General Theory of Relativity links more than does Ohm's Law. According to our model, these structures correspond to viewpoints which should be on a 'higher' ordinary space shell or a 'lower' inverse space shell. This gradual transition to greater organizing power could be better represented if we consider each major level (physical, emotional, mental) as being divided up into a series of **shells**, (cf. first and second 'quantum numbers'). Note that a viewpoint taken up on any particular shell will have an ordinary space aspect and an inverse space aspect. So that from the shell the ordinary space aspect would effectively constitute a spherical body (attracting 'mass'), indicating the unity of the viewpoint (e.g. the scientific 'world'). The inverse space aspect would be represented by concentric shells of relevant, more powerful viewpoints, or specialities in the space surrounding it, illustrating the attempts to achieve greater unity with respect to a particular viewpoint. Note that when we hold a viewpoint this inverse space aspect is sensed to be 'all around' our current viewpoint.



Nature of space in model

The purpose of this section is to convey a general impression of the nature of the sociocultural space created in the model by relating it to expressions used in daily speech which suggest some aspects of it. Details of the space will be discussed in the next section.

We have described a space in which an individual has at any one instant three viewpoint locations, namely his physical location, his emotional location and his mental location. These represent the points where he has his 'being' at any one time. Each individual must have three such unique locations although they may change from moment to moment, since he must choose to experience in three such ways whatever choice he makes.

The space is the volume created by the physical organization of society, together with the emotional and mental environments of society, and may be visualized here, in inverse space terms, as three concentric spherical bands of possible viewpoints (cf. electron cloud model

of the atom) centred on the hypothetical point of maximum unity. Each location in each band represents a different node of experience which may, if commonly held, give rise to some formal organization in society. It is only by a change of purpose that an individual or group can give rise to another viewpoint, which is then effectively constituted by its own relative coordinate system.

In visualizing this space it is most important to recognize that the path of movement through it is complex and results from a change of purpose and the resulting viewpoint. If one specializes, one moves in towards the centre of the space (explained in Part II) but is tied to the more general viewpoint currently held, so that the greater the specialization the less the movement (see **Fig. 8**). Consequently the path of permissible movement from one part of the space to another is very complex. It is complex because the gradual shift in a particular viewpoint in real life is a very complex phenomenon.

The space is complex in another sense, namely that it contains every viewpoint ever held in the history of the growth of society - many of which are no longer accessible to us. It also has the viewpoints of the growing infant which are similarly inaccessible, since these represent the direction from which individuals grow into the region of conscious membership of society. The following paragraphs illustrate our intuitive knowledge of the more evident features of this space as expressed in daily speech.

From a particular viewpoint which one is holding one is 'aware of the existence' of other viewpoints. This may be looked upon as the ability to 'see' other viewpoint bodies in the space, rather as stars and planets are seen from the Earth. Those that one is not 'aware of' cannot be 'seen'. All that is received from those seen is the 'light', which is the only link indicating bare knowledge of their existence. To the extent that one 'knows something about that way of looking at things', one can resolve features of the viewpoint body or analyse the light from it. To the extent that a viewpoint is said to be 'important', it features prominently in that section of space. To the extent that one is attracted or repelled by a particular viewpoint, one is aware of some 'inter-mass attraction or repulsion'.

Since each viewpoint represents a different method of treating and defining data, the problem of communication between viewpoints is twofold. Either one must take up viewpoints A and B successively, which involves a transformation of coordinate systems due to a complete change of purpose (required to enable him to adapt to the experiences at B). Or the holder of viewpoint B must learn how to perceive the same order in data as at A, by learning to construct or transform a specialized section of his viewpoint into an analogue of that at A. This gives an approximation to the functional apparatus required, but because it is constructed as a detail of B, it is by definition distant from A and therefore not as sensitive to the data seen in terms of A. This data will therefore appear to be less relevant from B or even nonsense if the distance is too great.

Clearly, if two individuals or groups have similar purposes then the degree of transformation required for them to 'see eye to eye' would be small, since they are by definition already in the same region of space. Hence their problems of communication are considerably reduced.

If one changes a purpose for the first time, one alters a viewpoint and 'sees things differently', i.e. one is exposed to a different part of the space. If people are 'poles apart' their ability to communicate is implied to be zero, if each does not understand what the other is advocating (i.e. they cannot 'see' each other), or else their viewpoint systems are so oriented that they view or define data in opposing ways so that they are 'utterly opposed to one another'.



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