

The Space of Bodily Presence and Space as a Medium of Representation

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1. Many Concepts of Space?

One of the most attractive aspects of thinking about space seems to lie in contrasting different concepts of space – the space of the physicist, the space of living reality, the space of the stage set designer; space in psychoanalysis, the space of the landscape planner, the space of the lyric poet. But when juxtaposing different concepts of space in this way the question necessarily arises whether there is a unified space in the background – a space which is merely conceived in different ways – or whether there is some common element in the concepts themselves which justifies us in grouping them together as concepts of space. Once we have begun to doubt the possibility of a multiplicity of different spaces we are soon confronted by the question, What actually is space? or simply, What is space? – space from which more or less everything is derived and to which more or less everything is related.

There is one difference between concepts of space that seems to me undeniable, and it is a difference so great that it seems almost impossible to bridge. It is the difference between the space of bodily presence and space as a medium of representation. The space of bodily presence is essential to my bodily existence, since to be bodily present means to find oneself within an environment. Space as a medium of representation, by contrast, has nothing to do with me as a human being, but is an abstract schema according to which a multiplicity of different things is represented. What is remarkable is that these two concepts are generally treated as if they meant the same, so that it is precisely the everyday commingling of these concepts which enables us to speak of space in both cases: my bodily presence is conceived as a state of being placed among things, and the order existing between things is understood as the order of their simultaneity, that is, of their reciprocal presence.

It is interesting that in the work of Kant, which employs a unified concept of space, this concept of space falls apart, as if by accident, in the course of its exposition.

2. Kant

In his *Critique of Pure Reason* Immanuel Kant defines space as a form of intuition. Because intuition is a representation, its space can be allocated to the concept of space as a medium of representations. Space makes it possible to represent a manifold of appearances, that is, a multiplicity of coexisting things. What is striking, however, is that in the passages in which Kant introduces this concept of space, § 2 (of the chapter, ‘The Transcendental Aesthetic’) of

the *Critique of Pure Reason*, the other concept - the space in which I find myself - also becomes involved. § 2 begins as follows: “By means of outer sense, a property of our mind, we represent to ourselves objects as outside us, and all without exception in space.” (A 22/B 37) What do these two propositions have to do with each other: firstly, that we represent things as outside us and, secondly, that we represent them all without exception in space? By saying “outside us” Kant is clearly bringing into play a spatial relationship which characterises us in our bodily presence. If we apprehend objects as objects outside us, that implies that we perceive them from the perspective of our bodily presence. While they form part of our environment, their mode of being present is clearly separate from our corporeally-experienced inner sphere. This way of experiencing our bodily presence as surrounded by things clearly implies the notions of centredness and boundary and, above all, the difference between inner and outer, and thus, also, the notion of directions. None of this explains, however, how things are to be understood in relation to each other, or whether, as Kant claims, they belong to an order of juxtaposition.

Now, one might object, of course, that Kant is not actually talking about the body itself here, and that the difference between inner and outer is really the difference between inner and outer perception. Inner perception is the perception of myself. It takes place through self-affection within the mind. Outer perception is the perception of objects, and takes place on the basis of affection by things in themselves. Assuming this difference between inner and outer, then the statement, “we represent objects to ourselves as outside us” would mean no more than that these objects are represented as something that we ourselves are not, and which must therefore be presented to us by outer affection. The manner in which we represent a manifold of objects to ourselves – Kant would then assert – is such that we juxtapose them in accordance with the form of intuition which he calls space.

However, Kant cannot get rid of the body quite so easily. And perhaps he does not want to get rid of it, since he needs it to make intelligible what he means by space. On the very next page, under Point 1 of the metaphysical exposition of the concept of space, we read: “For in order that certain sensations be referred to something outside me (that is, to something in another region of space from that in which I find myself), and similarly in order that I may be able to represent them as outside and alongside one another, and accordingly as not only different but as in different places, the representation of space must be presupposed.” (A 23/B 38) By now it is quite unmistakable: Kant is treating space as something in which I find myself – the space of bodily presence. The objects confronting the outer sense are clearly referred to here as objects outside my body. But Kant then says that I represent these objects according to the schema of things outside and alongside one another, that is, as objects existing in space as a medium of representation. From the second half of this sentence on, Kant forgets the body for

the remainder of the *Critique of Pure Reason*. Things confronting the outer sense are now represented only abstractly, according to the schema of what is mutually external and juxtaposed; the fact that I find myself among them as a corporeal being no longer plays any role. That is surprising enough, since, as objects of cognition, they must be given, that is, given in terms of sense perception. And how could sense perception take place if one were not present? But the compulsion of objectivity causes Kant to forget everything that this bodily presence in the perception of things might perhaps imply; instead, he concentrates exclusively on the relationships between objects. Why then, one might ask, does he in the first place speak of space as the space of bodily presence? He does so, it seems to me, because he draws from that idea an understanding of what it means to be in a place. To be in a place, as we know from bodily experience, means to find ourselves within an environment of things which are experienced as external. And by analogy – whether rightly or wrongly – Kant himself conceives of the mutual externality and juxtaposition of things as a presence in different places, namely in places the difference between which is determined solely by the fact that they are mutually external. But, for the concept of space as a form of intuition, is that actually necessary? That concept is not supposed to yield anything more than the notion of a manifold of juxtapositions. At any rate, space, for Kant, has the function of a medium of representation.

3. Space as a Medium of Representation

Mathematics treats space as a quantity with a certain structure. Depending on their structure, one can be confronted by different spaces. There are, for example, topological space, affine space and metrical space. A manifold of points can be represented as a manifold of numbers. If, in this case, each point has one corresponding number, space is referred to as one-dimensional; if it has two corresponding numbers it is referred to as two-dimensional; if it has n corresponding numbers it is referred to as n -dimensional. Space, qua space, has specific structures. Dimensionality is one such structure. If the points in space are determined only by relationships of juxtaposition, then it is a topological space; if, in addition, they are separated by distances, we have a metrical space. The Kantian space of intuition is determined by the form of intuition – that is, by “being alongside” – as, first of all, only a topological space. In the further course of the *Critique of Pure Reason* Kant shows how, through the effect of the categories of causality and quantity, the space of intuition is formed into metrical space. The crucial point here is that, through the notion of objects as confronting the outer sense, their relationships are represented as spatial relationships. That is what Kant means when he says that we can know nature only as appearance: objects are appearance in so far as their relationships to each other are represented as spatial relationships in the medium of space. This idea can be extended, in

accordance with the theories of Albert Einstein or Hermann Weil, to include the manifold of events. The relationships between events are represented as spatial relationships in a four-dimensional space, time being added as the fourth dimension to classical three-dimensional space. This extension is important because causal relationships between events can thereby also be represented as spatial relationships.

Mathematical spaces, as the subject-matter of a science, naturally have a value in their own right. But their essential function lies in serving as media for representing relationships within manifolds of objects. It is known, for example, that extensions of concepts, i.e. logical classes, can be represented by relationships of including or being included by areas of intersection, etc. But all network-like connections between objects, as treated by graph theory, for example, are of this kind. Although one may not realise it in individual cases, these relationships, too, are represented as relationships in space. If these relationships are themselves particularly abstract or even non-sensory, as in the case of hierarchies or affinities, this manner of representing them in space is referred to as visualisation. That expression, however, does not really do justice to the matter and has an almost pejorative ring. The fact is that relationships within manifolds of objects are often perceived only through being represented in space. One then speaks of spatial or even graphic models. This awareness, that in relation to some categories of objects one is thrown back on spatial or graphic models does, in a sense, reproduce Kant's insight that all knowledge involves concept and intuition. The element of intuition is provided by representation in space.

4. The Space of Bodily Presence

Just as mathematics is concerned with space as a medium of representation, phenomenology deals with space as the space of bodily presence. In noting this fact one is made aware of the fundamental difference between the two concepts of space. Mathematics deals with objective, perhaps even eternal entities, phenomenology with subjective data. The space of bodily presence is something deeply subjective, although common to all subjects. The space of bodily presence is the space within which we each experience our bodily existence: it is “being-here”, a place articulated absolutely within the indeterminate expanse of space – absolutely in the sense that it is without relation to anything else, especially to things: the “here” is implicit in the intuition of oneself. To the extent that the body itself is given as limited through the encounter with other bodily entities, the difference between the absolute “here” and the expanse of space is the difference between inner and outer. Up to this point bodily space can still be represented mathematically: it is a centred space with directions, within which environments compose

themselves in layers around the centre. It could therefore be referred to it has an anisotropic, topological space.

However, this structure of the space of bodily presence as delineated by mathematics misleads us with regard to the true nature of that space. What is crucial is my involvement in this space, its existential character. Bodily space is the manner in which I myself am here and am aware of what is other than me - that is, it is the space of actions, moods and perceptions.

As a space of actions, the space of my bodily presence comprises my scope for actions and movements. It might be called my *sphaera activitatis*. As such it is certainly also centred, and is articulated by characteristic physical directions such as above/below and right/left; but for the rest it is larger or smaller depending on the situation - for example, the presence of light or darkness. Bodily space as the space of actions is experienced essentially as possibility, as scope (*Spielraum*).

The space of moods is physical expanse, in so far as it involves me affectively. The space of moods is atmospheric space, that is, a certain mental or emotive tone permeating a particular environment, and it is also the atmosphere spreading spatially around me, in which I participate through my mood.

The space of perceptions is my being among things, that is, the way in which, through perceiving, I am outside myself; or it is expanse, insofar as my own presence is articulated through the presence of things.

It might be said that the space of bodily presence in an existential concept in the Kierkegaardian sense: it refers, not to the determination of something, but to the "How?" of my existence. Although bodily space is always the space in which I am bodily present, it is at the same time the extension, or, better, the expanse of my presence itself. The space of moods is the space which, in a sense, attunes my mood, but at the same time it is the extendedness of my mood itself. The space of actions is the space in which I can act, but also the scope of my possibilities. The space of perceptions is the space in which I perceive something, but also the expansion of my involvement with things.

5. Intuitive Space and Virtual Spaces

Having now become aware of the profound differences between space as a medium of representation and the space of bodily presence, one wonders what, if anything, these two concepts have to do with each other, and whether it is right to refer to both of them by means of concepts of space. One strategy for dealing with this situation, which follows the example of Husserl, is to demonstrate a fundamental connection between them. Elisabeth Ströker, for example argues that mathematical space is founded in bodily space, or, to use her terminology,

in lived space. However, this approach seems to me to underestimate the gulf between them, and to do violence to the freedom of mathematical possibilities of thought and construction. My thesis, by contrast, is that both types of space overlap from case to case and are, as it were, interwoven. I shall briefly discuss two forms of this overlapping, intuitive space and virtual spaces.

By intuitive space (*Anschauungsraum*) – I take this term from Elisabeth Ströker – I mean that the space in which we intuit our everyday praxis. Intuitive space is not the same as the space of perceptions. It is not only our extended being among things. Nor is it space as a form of intuition in the Kantian sense, because it is not a medium for the representation of things. In everyday life we do not represent the things in our environment, we perceive them. However, to some degree we overlay our perception of the environment with patterns of representation. These are ordering schemata, which certainly include Kantian juxtaposition, but also more than that: perspective, object permanence and other patterns such as those demonstrated by *gestalt* psychology. These patterns are assimilated culturally, as is proved by reversible figures.

Intuitive space, therefore, is undoubtedly a hybrid entity, and is by no means merely a medium in which we convert perceptions into representations. As we conceive or view things we are certainly out there among them, but we organise our presence according to the patterns of possible representation; that is, we perceive things, but we intuit them as this or that.

Virtual spaces, however, are those types of spaces which are now forcing us to reflect on the difference between space as a medium of representation and the space of bodily presence. In a sense, so-called virtual spaces are not virtual at all, but are simply images, that is, two-dimensional or multidimensional media in which a manifold attains representation. In this respect it is quite immaterial, regardless whether what is represented is merely a product of thought or is derived from reality. In particular, it is incorrect to call virtual spaces virtual because they simulate reality. For that simulation is nothing but representation; that is, such so-called virtual spaces are images and nothing else. Representational spaces do, however, take on the character of virtual spaces at the moment when they become entwined with the space of bodily presence. In principle, there are two possible ways in which this can happen. One way is to enter a space of representation through a representative, that is, to become virtually present in the space of representation through an avatar. This possibility should not, of course, be overestimated, since virtual space does not by any means thereby fully become the space of bodily presence. As a rule it becomes only a space for actions, but through identification with the avatar virtual space can also be experienced by the player – in this example we are dealing, of course, with electronic games – as a space of moods.

The other possible way in which virtual spaces can to some extent be made to coincide with representational spaces is to surround oneself with a representational space by means of a data glove, data spectacles or an electronic “cave”. In this way, too, a representational space becomes a virtual space, in that one is, in a sense, bodily present in it. Here, in contrast to the first case, I do not become bodily present in the space of representation through a representative, but, inversely, the bodily “I” becomes present in a representational space by coupling a representational space to its sensory perceptors. That the representational space in both cases represents a living reality for the person experiencing it is shown in the first case by the affective and biographical importance for the player of the events in the game, and in the second by possible bodily reactions, such as nausea, experienced by visitors to caves and simulators.

Virtual spaces, too, therefore involve an intertwining of representational spaces with the space of bodily presence. Virtual spaces are rightly called such because, although merely representational spaces, they can be experienced as spaces of bodily presence. Virtual spaces should not, therefore, be referred to as virtual simply on account of their character as representational spaces, but only in so far as a subject becomes in some way involved in them. This possibility – I would like to say in conclusion – is likely to be connected to the fact that an overlaying of the space of bodily presence by patterns of representation is already rehearsed in everyday life, that is, in intuitive space. That is certainly not to say that virtual spaces are limited to these patterns and should in some way approximate to reality; rather, it should be possible to simulate a virtual presence in representational spaces of any desired structure.