

12 October 1981

## NEW READING 2

### For General Circulation

One of Mr. Ouspensky's most valuable contributions to the emergence of a new Paradigm is, of course, his insistence on the necessity for 3 dimensions of Time. We all know that 3 spatial dimensions are necessary for the description of a solid body, but since Einstein based his theory of relativity only on 4-Dimensional space, everyone following him has stopped at that single time dimension; although quantum theory makes it possible to describe not only a line of time (a cycle), but also a surface (5th Dimension), and a solid (6th Dimension) of Time. We now have to find a way to relate the 5th Dimension to current thought.

Although much neglected, the 5th Dimension – Repetition – is by no means unknown in the West. For example, the late Professor A. N. Whitehead, who was a Don at my College, Trinity, Cambridge and who was elected FRS in 1903 and became a Professor at Imperial College, London, has a chapter called 'Periodicity in Nature' in his small *Introduction to Mathematics*. This chapter (12) begins on p.164 as follows:

The whole life of Nature is dominated by the existence of periodic events, that is, by the existence of successive events so analogous to each other that, without any straining of language, they may be termed recurrences of the same event. The rotation of the earth produces successive days. It is true that each day is different from the preceding days, however abstractly we define the meaning of a day, so as to exclude casual phenomena. But with a sufficiently abstract definition of a day, the distinction in properties between two days becomes faint and remote from practical interest; and each day may then be conceived as a recurrence of the phenomenon of one rotation of the earth. Again the path of the earth round the sun leads to the yearly recurrence of the seasons, and imposes another periodicity on all the operations of nature. Another less fundamental periodicity is provided by the phases of the moon. In modern civilised life, with its artificial light, these phases are of slight importance, but in ancient times, in climates where the days are burning and the skies clear, human life was apparently largely influenced by the existence of moonlight. Accordingly our divisions into weeks and months, with their religious associations, have spread over the European races from Syria and Mesopotamia, though independent observances following the moon's phases are found amongst most nations. It is, however, through the tides, and not through its phases of light and darkness, that the moon's periodicity has chiefly influenced the history of the earth.

**Comment.** Our Western System confirms that one should pay scant attention to the phases of the moon, but within us there are also '*tides*' affecting the endocrine glands, and most noticeably those underlying reproduction.

Whitehead continues:

Our bodily life is essentially periodic. It is dominated by the beatings of the heart, and the recurrence of breathing. The presupposition of periodicity is indeed fundamental to our very conception of life. We cannot imagine a course of nature in which, as events progressed, we should be unable to say: 'This has happened before.'

The whole conception of experience as a guide to conduct would be absent. Men would always find themselves in new situations possessing no substratum of identity with anything in past history. The very means of measuring time as a quantity would be absent. Events might still be recognised as occurring in a series, so that some were earlier and others later. But we now go beyond this bare recognition.

(A. N. Whitehead, *Introduction to Mathematics*. Thornton Butterworth, 1939)

There is much confusion in the current sciences between two kinds of repetition: look up 'Period' (Physics). 'If any quantity is a function of the time and this function repeats itself exactly after constant time intervals – T – the quantity is said to be periodic and T is the period (or periodic time) of the function.' Of this sort is the period of decay of a radioactive element measured by its 'half-life' period.

But you come next to 'Periodic Law' (Mendeleev 1869) and 'Periodic Table: an arrangement of the chemical elements in order of their atomic numbers (i.e. the numbers of positive charges on the central nucleus and the number of circulating negative electrons) in such a way as to demonstrate the 'periodic law' (q.v.).

And of course this last has nothing to do with time, only with (electrical) energy. It is quite clear from the first diagram (based on several in *A New Model of the Universe*) that the first kind of periodicity refers to the horizontal line of Before – After (really a circle) and the second kind to the vertical lines of Now – where 'there is time no longer' – (really radii rays of the circle). So *there are two kinds of periodicity*. [See diagram, 1981/31]

We recall Mr. Ouspensky's comment on the quote on p.468 (3rd edition of *A New Model of the Universe*) about the two kinds of repetition known to the Pythagoreans. 'These two kinds of repetition which Eudemus calls "repetition in the natural order of things" and "repetition in numbers of existences" are, of course, repetition in Time and repetition in Eternity'.

[Group takers should choose from the above what would interest their particular group and as much as they themselves can understand and explain. We should remember that forming the habit of replacing our egocentric attitude by the memory of the Param-Atman (when possible) during the day, will at once resolve this age-old duality by governing our actions and also looking after the inner mind which takes over during the night.]

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