

22 February 1965

READING 5

LIFE AND DEATH

PART 1

Our System tells us that any human individual can be considered to consist of four main kinds of materiality under different laws: the Physical Body largely under the Laws of Organic Life on Earth, which *for it* are Accidental; the Personality under the social laws of man, in which we can see the Law of Cause and Effect at work; the Essence under Planetary Laws; and a fourth called the 'Soul' which, if developed, would be under the Law of Will.

How are we to think about this hypothetical entity the 'Soul', which our System insists (in contrast to most others) can be developed in exceptional people as the result of patient effort, good luck and help from a School? Looking at the diagram of the Lateral Octave [see Figure, p.24] we recall that, when any individual being in Organic Life dies, its body dissolves in the earth while its *Life Principle* goes to the Moon. That means, of course, that every living thing has something of this 'Life Principle'. Though this couldn't possibly be weighed and measured scientifically and therefore is, and must be, regarded as outside the range of science as we know it, yet it is perfectly obvious to everybody – scientist or not – that a profound difference exists between a man alive and the same man at the instant he dies. Something departs that can never be recalled to that same body, which without it immediately begins to disintegrate.

As long as we remember this fact constantly, we can safely follow the recent advances in the study of what has been hailed as the 'stuff of life' – the giant self-reproducing molecule called (for short) DNA, which is to be found in every living (that is to say, self-reproducing) organism on earth, including every cell in our own bodies. For those unfamiliar with this work, the following brief account may be sufficient:

The chromosomes (of any cell nucleus) which carry out what has been termed the stuff of heredity contain a special substance, deoxyribonucleic acid, which, for short, is indicated by the letters DNA. This DNA of the nucleus of a cell contains, in coded form, a kind of blueprint of all the information, so it is assumed, needed to assemble in a reproduced cell all that is contained in the original cell before division, and from subsequent individual cells all the cells that go to make the entire mature organism.

That the structure of DNA has great significance there can be no doubt, for its characteristic as bearer of information accords well with a mechanistic interpretation of life. It carries messages as to how a cell is to develop and proliferate. It can produce exact copies of itself and it appears that of all the substances of an organism, only this substance has the power of replication. Cells of course contain much more than their nuclei, cytoplasm, chloroplasts, etc., and far smaller units, too small for the ordinary microscope; the most important of these minute particles are the enzymes and the microsomes (or protein factories) which are genetically controlled. The microsomes follow the DNA construction, with the addition of ribonucleic acid, termed RNA. It has been shown that RNA can manufacture enzymes, while DNA cannot.

(*The Mystery of Physical Life*, E. Grant Watson, Abelard-Schuman, 1964. pp. 112–113)

Certain minute and parasitic organisms, such as the viruses, have no nuclei, but contain this DNA or its derivative. These have the strange property of staying alive, but in a state of

suspended animation (even in crystallised form) until they are conveyed to the nucleus of some susceptible living cell, when they suddenly 'come to life' as it were and reproduce at enormous speed. It is clear that this same property belongs to the giant molecule DNA itself. It is clear also that this cannot 'come to life' without the 'life principle' of some living cell. Even if the scientists were able to synthesise DNA (which they are still a long way from doing), they could not make that living cell or that 'life principle'. Both are outside their sphere.

(Pause for discussion)

PART 2. IMMORTALITY OF CELLS

There was a time on earth when there was no DNA. The Great Laboratory had to achieve its synthesis before the first unicellular plants and animals could reproduce themselves. We may be surprised to find that in these single-celled forms the life principle and the molecular structure are immortal:

Paramecium, a ciliated infusorian, a unicellular animal of comparatively simple structure, having a cell-wall, with fine hair-like processes called cilia, has been kept under observation for many generations. L. L. Woodruff has demonstrated that this little animal is able to reproduce itself without experiencing conjugation, and is potentially immortal. He has shown that the original substance of an individual, though it divides again and again, does not necessarily perish, but continues to live. Death, though it may be accidental, is not an inevitable part of its fate. Woodruff observed Paramecium for more than eight-thousand five-hundred generations, during which time (thirteen and a half years), there was no conjugation, which means that the original substance was in no way added to by another individual of the same species. During this time the individuals that resulted from the repeated divisions remained healthy. Such a series of generation, if translated into human terms, would represent some millions of years. During this time there was no natural death. Each individual, as it became mature, divided into two that again divided. In the course of such an experiment vast numbers were disposed of, and Woodruff calculated that if he had been able to keep them all alive, and all their potential descendants, they would have produced a volume of matter equal to ten thousand times the volume of the earth, and that the rate of growth at the end of fifteen years would be extending its circumference into space with the velocity of light. From this we clearly see how life and death balance to make existence possible on earth. The many die by accident, but the potential of life appears immortal. And, of course not only with Paramecium but also with other species similar results have been obtained.

(ibid. p.125)

But remember that the original Paramecium must first be alive, though it contains the DNA. No one can galvanise a dead Paramecium into life; that unknown 'life principle' must be present as well. Then, of course, the water in which the Paramecia live must be continually refreshed, the necessary dissolved gases and food substances must be constantly renewed. The same is true of bacteria and even of some of the cells of our own bodies which, *when removed from the body*, can breed true to the original tissue for many generations.

This brings us to a most interesting subject – the different degrees of mortality exhibited by our own body cells; for these might be divided into three classes in this respect:

1. First there are the germ cells and their embryonic products, for those exhibit the 'immortality' above described. But embryonic cells are strictly controlled by the 'organising substance' of the body as a whole. If a small group of embryonic cells remains separate from the general laws of the body, these can be 'released' or 'activated' even 50 or 60 years later by some prolonged excitation or hormonal influence, to spread all over it as a 'cancer'. Yet when under due control, as in the bone marrow, these embryonic cells continue perfectly safely to renew the red and white blood cells which are dying after a few weeks.

The male and female germ cells can live separately only a day or two; to become 'immortal' they must conjugate; but through union they continue to carry the stuff of Adam and Eve and show no signs of fatigue after a million or more years. This is true also of all the other species of organic life which reproduce sexually.

2. The great mass of organ and tissue cells in our bodies seem to reproduce by division into two, and thus each organ maintains its normal population, though the life-span of their constituent cells is measured in days or weeks. But if part of an organ (like the liver) is damaged, its cells reproduce rapidly to fill the gap, so they are said to have the power of 'regeneration' like the cells of a tadpole's tail or of those invertebrates which, if cut in half, can grow into two separate individuals.
3. The third group of cells are those with a life-span as long as our own – the nerve cells. If killed or damaged they cannot regenerate, though other parts of the brain can learn to take over their functions. They, however, may manufacture hormones which are evidently incorporated in the DNA genetic heritage of the germ cells.

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The above speculations are subject to correction of course, and we should be grateful if you would question everything and point out any mistakes!

(Pause for discussion)

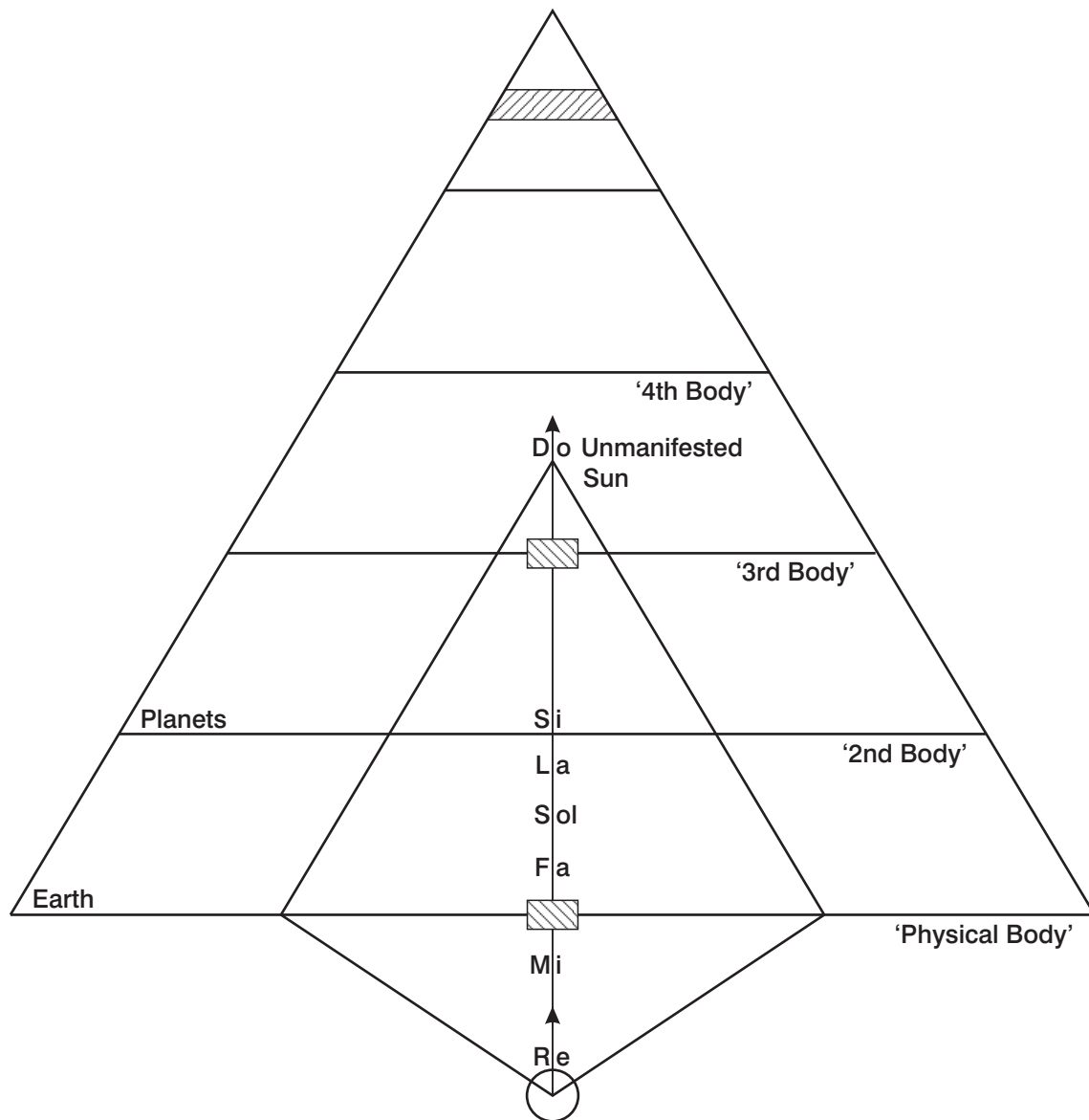
PART 3. POSSIBLE IMMORTALITY OF MAN

Looking back again at the two Octaves of Creation and considering a line of upward movement starting with the Life Principle in the Moon, many questions come into the mind:

1. Is it possible that when anything in Organic Life *is born* its Life Principle returns *from* the Moon? Or:
2. Is it more likely that its new Life Principle enters it from the Sun?
3. Can the Organic Life Force (which we have shown to be immortal and continually generating living forms) coincide with the Atman or 'Individual I' of each?
4. Living in a perishable body and being deprived of the Keys of His Kingdom, is it possible that the Atman remains unmanifested unless he goes through seven gates to merge with the Universal (?Unmanifested Sun) to receive the Keys of His Kingdom?
5. Have Higher bodies to be formed as a vehicle or 'immortal Soul' where the Atman can dwell and finally merge with the Absolute?

[Introduce the relation of the Four Bodies to the Ray of Creation according to the System.]

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All these questions remain unanswered, but it would be good for any of us who seek rational explanations to try to make for themselves their own working hypothesis. Nobody would be able to prove you wrong!

Questions like these, of course, cannot be answered just by knowledge or by taking thought. One must seek the Knower of all answers, the Ultimate Observer, and the *Crest Jewel of Wisdom* (p.78) describes the way:

There is no more excellent source of joy than silence free from all mind-images, for him who has discerned the true being of the Self, drinking in the essence of the joy of the Self.

Whether walking, standing, sitting, lying down, let the Saint, possessing wisdom, freely dwell, rejoicing in the supreme Self.

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