'ORGANO-DYNAMIC PSYCHOLOGY'

PART 1. HISTORICAL RESUMÉ

The starting point of systematic neurology can be taken as the Croonian Lectures on 'Evolution and Dissolution of the Nervous System' delivered by Hughlings Jackson in 1884. These were the outcome of many careful clinical studies of diseases of the nervous system related to the contemporary discoveries on 'Evolution' by Jackson's friends Herbert Spenser and Darwin. The conclusion they arrived at (which has since been amply confirmed) was, in Jackson's own words, as follows:

Beginning with evolution, and dealing only with the most conspicuous parts of the process, I say of it that it is an ascending development in a particular order. I make three statements which, although from different standpoints, are about the very same thing: (1) Evolution is a passage from the most to the least organised; that is to say, from the lowest, well organised, centres up to the highest, least organised, centres; putting this otherwise, the progress is from centres comparatively well organised at birth up to those, the highest centres, which are continually organising through life. (2) Evolution is a passage from the most simple to the most complex; again, from the lowest to the highest centres. There is no inconsistency whatever in speaking of centres being at the same time most complex and least organised. Suppose a centre to consist of but two sensory and two motor elements; if the sensory and motor elements be well joined, so that 'currents flow' easily from the sensory into the motor elements, then that centre, although a very simple one, is highly organised. On the other hand, we can conceive a centre consisting of four sensory and four motor elements, in which, however, the junctions between the sensory and motor elements are so imperfect that the nerve-currents meet with much resistance. Here is a centre twice as complex as the one previously spoken of, but of which we may say that it is only half as well organised. (3) Evolution is a passage from the most automatic to the most voluntary.

The triple conclusion come to is that the highest centres, which are the climax of nervous evolution, and which make up the 'organ of the mind' (or physical basis of consciousness) are the least organised, the most complex, and the most voluntary. So much for the positive process by which the nervous system is 'put together' – evolution. Now for the negative process, the 'taking to pieces' – dissolution.

Dissolution being the reverse of the process of evolution just spoken of, little need be said about it here. It is a process of undevelopment; it is a 'taking to pieces' in the order from the least organised, from the most complex and most voluntary, towards the most organised, most simple and most automatic. I have used the word 'towards', for, if dissolution were up to and inclusive of the most organised, etc., if, in other words, dissolution were total, the result would be death. I say nothing of total dissolution in these lectures. Dissolution being partial the condition in every case of it is duplex. The symptomatology of nervous diseases is a double condition; there is a negative and there is a positive element in every case. Evolution not being entirely reversed, some level of evolution is left. Hence the statement, 'to undergo dissolution' is rigidly the equivalent of the statement, 'to be reduced to a lower level of evolution'. In more detail: loss of the least organised, most complex, and most voluntary, implies the retention of the more organised, the the less complex, and the more automatic. This is not a mere truism, or, if it be, it is one that is often neglected. Disease is said to 'cause' the symptoms of

insanity. I submit that disease only produces negative mental symptoms answering to the dissolution, and that all elaborate positive mental symptoms (illusions, hallucinations, delusions, and extravagant conduct) are the outcome of activity of nervous elements untouched by any pathological process; that they arise during activity on the lower level of evolution remaining. The principle may be illustrated in another way, without undue recapitulation. Starting this time with health, the assertion is that each person's normal thought and conduct are, or signify, survivals of the fittest states of what we may call the topmost 'layer' of his highest centres: the normal highest level of evolution. Now, suppose that from disease the normal highest level of evolution (the topmost layer) is rendered functionless. This is the dissolution to which answer the negative symptoms of the patient's insanity. I contend that his positive mental symptoms are still the survivals of his fittest states, are survivals on the lower, but then highest, level of evolution. The most absurd mentation, and most extravagant actions in insane people are the survivals of their fittest states. I say 'fittest', not 'best'; in this connection the evolutionist has nothing to do with good or bad. We need not wonder that an insane man believes in what we call his illusions; they are his perceptions. His illusions, etc., are not caused by disease, but are the outcome of activity of what is left of him (of what disease has spared), of all there then is of him; his illusions, etc., are his mind.

(Selected Writings of Dr. Hughlings Jackson, Ed. by James Taylor, 1958, Staples Press, London, Vol.2, p.46.)

It was after recently re-reading these words that Figure 1 floated into my mind. The dark central core here represents the brainstem segmental control of those visceral functions and primitive reflex movements which remain in coma or deep sleep. They are the legacy of segmental invertebrates such as *Lumbricus*, the earthworm, transformed in vertebrates into cranial and spinal paired nerves and segmental sympathetic chains. Surrounding this, the intermediate shaded area shows the vascular autonomic system developed in lower mammals and controlled at midbrain and hypothalamic levels, which being operative during the dream-state, forms the substrate of our emotional life, though working far below its potential. Since each organisation continues beneath the awakening of each successive level of control, more primitive regions remain. The expanded area at the top of the diagram represents the daytime state ('vigilance') which remains much the same in higher mammals, primates and man, comprising incoming sense-data from the environment and the more complex and voluntary movements ('conditioned reflexes') developed from them.

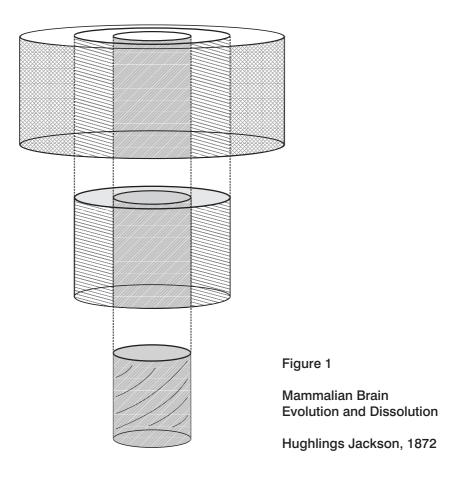
Figure 2 expresses the function of the 'reticular alerting system' resulting from the chance discovery of Moruzzi and Magoun in 1946. In 1953 a symposium of all the workers in this field was held in the USA and their chief papers were published in 1954 under the title *Brain Mechanisms and Consciousness*¹.

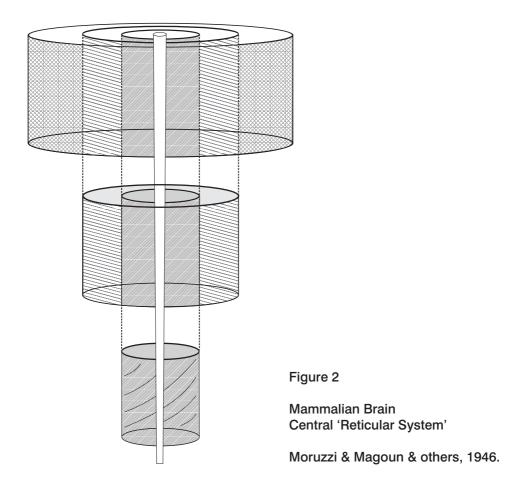
Since then the wave-front of neurological research has moved on, with scarcely any impact on psychology, since no one made any attempt to relate these important findings to his own experience of the fluctuations of human consciousness. Subsequent neurological research has continued those experiments on laboratory animals in working out down to the smallest detail the functions of separate parts of the more recently evolved brain (forebrain in the embryological sense²), and also on the electrical findings during the stages of human sleep and vigilance.

^{1.} Blackwell Scientific Publications (Oxford)

² 'The Neurological Foundations of Psychiatry', Smythies, J.R., et al., Blackwell Scientific Publications,

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On the other hand, the emergent psychology which arose from the work of the late Professor Maslow on glimpses of a higher state of consciousness, has largely neglected the 'organic' or structural basis, for Anglo-Saxon psychology has usually hesitated to adopt Hughlings Jackson's neurological system which might lead to a purely mechanistic or 'behavioural' attitude to Mind. Recently the writings of the French psychiatrist, Professor Henri Ey, have been brought to the notice of English neurologists.³ Professor Ey had evolved and practised a system which he has called 'Organo-dynamic Psychology', which, being founded on those same lectures by Hughlings Jackson, gives a logical and coherent synthesis between neurology and the 'added dimension' of psychology, and which succeeds quite well in clinical practice.

To quote Professor Ey: the process opposite to that called Dissolution is being called 'Evolution' used in the following terms:

The field of consciousness is the dynamic organisation of actuality; 'being conscious of' in a wider sense than just the identification of external objects. Since it is dynamic it presupposes an evolution. Existential psychology regards consciousness as more than a subjective field and is the very act whereby the individual gains awareness of his world and constructs it for himself. Consciousness is a 'way-of-being-in-the-world' (*Dasein*).

The movement from sleep to wakefulness implies the following succession of organisational levels of consciousness: an opening to the world ('presence'), an ordering of space ('representation') and the control of feeling ('the present'). These are the three modalities of actuality. In sleep there is no actualisation, the three components of consciousness being lost... Consciousness is both a reality and a means of access to reality...

The analogy of a 'field' is appropriate. The field of consciousness is where the subject's history and present experience meet and articulate... But the field is also a stage upon which is played a re-presentation of one's world. The subject of this representation is both author and spectator. Existence is enacted where time and space, objective and subjective articulate in the totality of an immediate experience, 'that-which-is-here-and-now-for-me'.

It [consciousness] serves as a model for our comprehension of one's world and it is a model which is of our own construction.

But his limited conception of Consciousness leads him into absurdities such as this:

Animals and babies do not have a consciousness, and it is not essential to life (viz. sleep and coma)... Consciousness makes its appearance in its most primitive form when the infant confronts an object of desire... At birth there is no zone of indetermination between stimulus and response. Any reflection is short-circuited and behaviour is instinctual.

There is no consciousness as defined. The world is one of objects and the infant gains consciousness as he *recognises* his mother's face, etc... there is no reflection and no temporal order, all is pure instantaneity.

In the infant, a world of objects and blind desires is replaced by a consciousness which discovers its own identity. He begins to face subjective and objective values. The acquisition of a corporeal reality will clarify impressions, sensations and illusions. Consciousness then acquires the dimension of *representation*; 'myself' can then become an imagined 'other'. The discovery of 'I', the experience of the mirror, is the 'open sesame' of this new experience of a widened and ordered field of consciousness.

^{3.} Brain, Vol.95, Part 2, p.413.

I have not, moreover, found in Professor Ey's writings much evidence of familiarity with the neurology of the reticular alerting system or of the complex circuits of the forebrain; and, of course, no recognition of that Consciousness innate in all animal forms which must persist from prenatal life to physical death irrespective of those fluctuating states of consciousness which may be regarded as its reflection. Contrary to Professor Ey, animals and young children possess their own form of consciousness which also provides an important difference between even the deepest coma and physical death, which Jackson showed to be the ultimate 'Dissolution' of the nervous system.

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PART 2. SELF-OBSERVATION

It seems therefore of importance to attempt to relate organo-dynamic psychology to experience through Meditation and the innate knowledge of self-evident truths which it releases.

Those who have pursued it to its ultimate goal have made the following claim:

A man who has fully realized all latent human possibilities is one who has full control over four states of consciousness – deep sleep, dream state, daytime state ('vigilance') and the awakened state (Turiya or Enlightenment). One who has such complete control feels fully satisfied and has no opposing thoughts or desires.

(Record, 21 September 1968)

Full control of that kind has been usually regarded as applying exclusively to people's activities in the external or material world, in which case it is almost impossible to find any examples of such complete control of the environment in the whole of human history. In practice we find that it must be applied first of all to the inner or spiritual world.

The expression 'to obtain control over four states of consciousness' signifies letting 'light' flow into areas of the brain which, in ordinary experience, remain in darkness. All that can be discovered by animal experiment without Self-observation is expressed in Figure 2 where the central 'reticular system' determines the physical changes which take place during the 24-hour rhythm from the deepest sleep, through light sleep with its dream-state, to the daytime state of 'vigilance' – and back again. These are all changes which take place (as in a mirror) in the limited consciousness derived by 'reflection' from the sensory world.

When we 'fall asleep' the perception of incoming sense data is quite suddenly shut off. Though there is usually a period of increasing drowsiness, very often with diminishing awareness that we are getting drowsy and also of those 'hypnogogic' images which are so often described; but at a given moment there is a sudden change into another world with a different set of laws including a wholly different 'space-time'. In the transitional *dream-state* that we then enter, we no longer know that we are asleep, and the dreams we experience are in complete contrast to our daytime experience. These 'dreams' are best described as the psychological equivalent of those 'after-images' we notice when we shut our eyes after gazing steadily at a bright light. The image of the patch of light goes through a whole range of complementary colours rapidly succeeding each other, and our dreams reveal an analogous cycle of ideas complementary to and opposing

our daytime ideas. After calling attention to this novel explanation Ouspensky continues:

There exist for us no morals in dreams, *because* for good or bad our [daytime] life is surrounded by different kinds of 'thou shalt not', and therefore 'thou shalt not' does not exist in dreams. There exists for us nothing extraordinary in dreams, because in life we are astonished at every new or unusual combination of circumstances. There exists for us no law of the consecutiveness of phenomena in dreams, because this law governs everything in life, and so on.

The principle of complementary tones plays the chief role in our dreams, as much in those we remember as in those we do not remember; and without keeping this principle in view it is impossible to explain a whole series of dreams in which we do and apparently feel what we never do and never feel in life...

The composition of dreams is not the simple opposite of life, but an 'opposite' turned inside out several times and in several senses. Therefore attempts to reconstruct from dreams the hidden causes of dreams are quite useless, and it is merely senseless to suppose that the hidden causes of dreams are the hidden motives of life in a waking state.

(A New Model of the Universe, p.294)

The immense mythology of the past, the stories and parables which illuminate many spiritual teachings, the work of creative artists in all media, reveal the great scope and variety of this territory of the dream-world. Writers like Lewis Carroll (particularly in *Alice through the Looking-glass*), the gloomy Czech writer Kafka in *The Castle* and *The Trial*, the cheerful exiled German, Herman Hesse (particularly in *Journey to the East*) – all depict the subtle world of dreams in physical terms.

Of the world of deep sleep, of course, we ordinarily know nothing because we remember nothing. But it is important to realise that, just as those different levels of the nervous system depicted in Figures 1 & 2 continue to exist and can be studied during the day by appropriate means... [end of sentence missing]

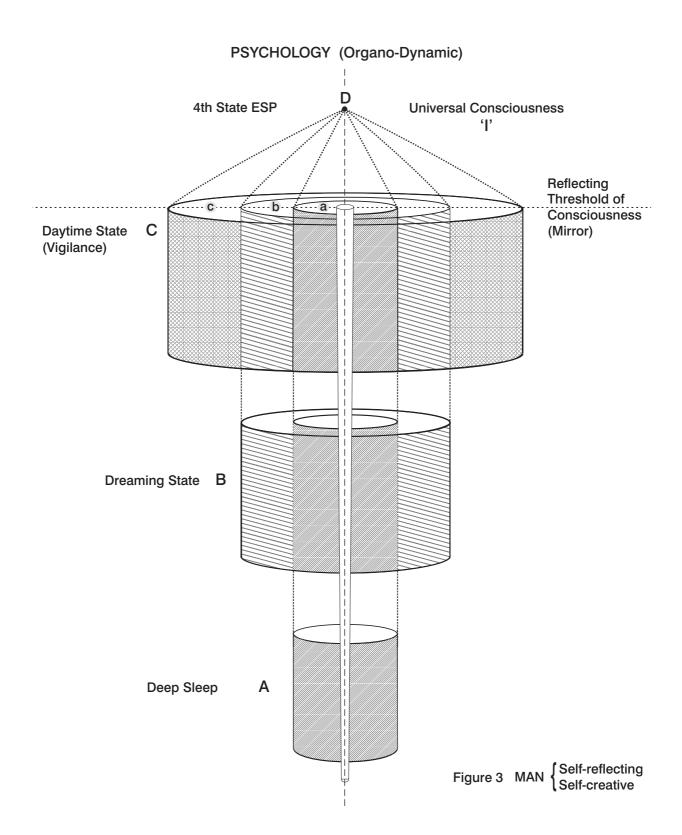
The perceptual world created artificially for us by the incoming sense-data with the limited area of brain they supply, is an illusory world; the dream world is also an illusory world but of a different kind; the *void* of the dreamless state is also illusory. Self-realization consists in shedding successively those three levels of illusion.

Many people today imagine that the so-called hallucinatory drugs (like opium smoking, hashish or mescaline) will give them this liberation from the three illusory worlds. Unfortunately experience shows that those drugs introduce illusions of their own and lead to a worse prison than that in which we ordinarily live. The only safe way is the natural way of Meditation about to be described.

PART 3. LIBERATION FROM ILLUSION THROUGH MEDITATION AND SELF-KNOWLEDGE

Figure 3 expresses the point of view which emerges from Self-observation and shows how a System of Meditation could lead, by conducting the attention *inwardly* from the fluctuating world of sensory impressions to the pure Consciousness (central dotted line) which never changes, by a succession of well-defined steps to the control of all four states of consciousness.

Referring to the clear upper surface of Figure 3 labelled 'Threshold of Consciousness', those who correctly practise a valid technique of meditation must experience the following main stages:



1. After assuming an alert but relaxed posture the eyes are closed and the attention withdrawn from incoming sensory impressions. One then becomes aware of the contents of the outer circle (c) in the form of revolving thoughts subserved by established connections among groups of cortical cells of the prefrontal lobes fired by circuits in the subjacent associational tracts of white fibres. Neurologically there are 7 layers of cortical cells and fibres which fits the psychological experience in depth of thoughts and fragmentary conversations from most to least recent in time. If, by means of an authentic technique, the attention penetrates all these layers, we come to what can be called 'the first threshold'.

- 2. Passing from (c) to (b) we find that verbal thoughts have disappeared and we are in a world of feelings, emotional associations, memories and dreams ('affect'). Neurologically we have passed from the cortical centres to the subcortical nuclei of which the cortical areas are the 'projection'. Passing through all this world of rapidly moving 'dreams' the 'looking glass world', we come to the *second threshold*.
- 3. The passage through this threshold from (b) to (a) is experienced by the meditator as a passage from a noisy and moving to a silent and motionless world. To the experienced observer, there is a change in the breathing and heartbeat, a cessation of the flickering movement of the eyelids and a sudden general relaxation. Laboratory tests have confirmed these and have revealed a drop in basal metabolic rate, and a change in the EEG to the resting or alpha rhythm which comes in short bursts between long periods of electrical inactivity (?inertia).

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As regards the actual practice of Meditation which must be done without any thoughts or theories, our experienced adviser has said:

In meditation one could experience any of the usual states of consciousness common to all human life [as listed above]. One may sit with closed eyes and yet allow movement inwardly on the subtle level of thoughts and feelings, or think about one's personal affairs, or go into a trance or even go to sleep and dream.

One can also, by proper meditation, achieve the rare state of Samadhi in which the meditator has deliberately cut off the experiencer and the physical world (even though he remains connected, as with a tape-recorder with its microphone open but with no signal being recorded on the tape). Such *real* meditation does not last long; one would be fortunate to have 2, 3 or 6 minutes of the joy of union with the Self (Pure Consciousness). But that would be enough to give all the energy to perform one's activities with ease and efficiency.

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