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## Organ Systems and Lifestyles

David Boadella, D.Sc.hon, M.Ed., B.A.

### Abstract

This article was the earliest introduction of the embryological model which is foundational to Biosynthesis. It first appeared in English in 1975. The model has influenced other body-psychotherapy directions, and is now gaining constant new confirmation by advances in neurobiology.

### INTRODUCTION

This article is the first of several to develop the theme of the relationship between embryonic form, body morphology, character attitudes, and therapeutic styles. These ideas were first presented in talks at the Friends' Meeting House in Hampstead, London, in March and April, 1976, and organized by the growth center, "Community." The articles will form part of my book *Lifestreams* to be published by Coventure Ltd., in 1977.

### GERMINAL LAYERS AND BODY SEGMENTS

The human being, as Reich described him, functioned in some ways like an amoeba, or a jellyfish, governed by a rhythmic alternation of expansion and contraction. In pleasure a person who relaxes is aware of fine sensations of vibrations moving through the body; Reich called these "streaming sensations" or vegetative currents (Reich 1948). They are functionally similar to the outward movement of protoplasm in an amoeba. In a state of anxiety, unpleasurable pulling sensations are felt in the solar plexus region as these currents reverse their direction and move inwards away from some harmful stimulus in the environment. Under prolonged stress the amoeba can encapsulate, forming a semi-impermeable cyst like hardening of its protoplasm, which protects the inner contents. The human being likewise has his armour, a stiffening of the musculature which defends him from hurt.

Alexander Lowen (Lowen, 1958) has described three forms of movement in animal life: firstly, he gives an account of movement from centre to periphery which corresponds largely with Reich's account of amoeboid life. In human living, the relationship of the periphery to the centre of the organism is a crucial one, one which I shall look at more closely later.

Lowen's second direction of movement is a longitudinal one, along the axis of the body, propelling the animal forward in the direction of the head. He describes how the human body is built like a series of tubes. These tubes derive from germinal layers in the embryo.

In the centre of the body is the gastro-intestinal tube formed from the endoderm. Embryologically, the lungs are an out budding from this tube. We can think of the breathing and feeding functions as innermost and most centralized of the body activities. It is by means of these organ systems that he derives the energy to stay alive. In therapy, if we want someone to become more "centred" we ask him to lie down, and to become aware of the rhythms of his breathing and the peristaltic movements of his gut.

The second germ layer of the body is formed from mesoderm. The cardiovascular system and the skeleto- muscular systems derive from this layer. It is responsible for the fluid pressure levels in the body and the degree of muscle tension and relaxation. The heart pumps blood round the body to charge it with energy primed for action. The muscles in walking, running, and wherever movements of the body are carried out, discharge these actions, and the rhythmic action of these muscles acts as a "vein pump" to help return the blood to the heart (Olesen, 1971). The stress positions of bio-energetics act initially on this layer, toning up slack muscles, relaxing tense ones, and improving the circulatory flow throughout the body, in a process we call grounding.

The third germ layer of the body is formed from ectoderm. It provides the outer most tube, the skin, and with that the sensory organs, and the whole of the nervous system, centred in the brain. It governs the perceptual system, the flow of information into and out of the body. Therapeutic work that encourages sensory awareness, eye-contact, and the ways we encounter each other, work in the area that I call 'facing'. Facing person can be related to Lowen's third degree of movement, which involves rotation round the axis of the body, and the distinction between the back and the front of the body. Stanley Keleman (Keleman, 1975) has emphasized the leap forward in sensitization and discrimination when we stand erect and meet the world with the whole of the soft underside of the body as our leading edge. The face to face position in making love expresses this increased opportunity to maximise contact..

Although in the completed body form the embryonic layers are arranged in this sequence, they do not develop in this order. Ectoderm and endoderm form as two sides of the embryonic disc, and the ectoderm begins to develop first, with the infolding of the back, which forms the beginning of the neural canal. We can justifiably look on the ectodermal systems as the earliest in developmental importance. Mesoderm tissues are formed last in the sequence.

In life inside the womb the system formed out of endoderm - the apparatus for feeding and breathing, lies dormant, for the fetus in the womb is nourished through the umbilicus, and neither feeds nor breathes. Movements certainly take place in the womb, but the specific orientation to gravity, and with that the development of anti-gravitational tensions which are the basis of the erect stance (d. Moshe Feldenkrais: *The Body and Mature Behaviour* (Feldenkrais, 1948)) cannot take place in the fluid medium of the womb. The fetal movements are virtually weightless. Immersed in the amnion, cushioned by fluids, perfused with what Francis Mott (Mott, 1948) refers to as "umbilical affect", the fetus can feel contained, enclosed, secure. but certainly not grounded in gravity.

But the newborn child has already had months of sensations. Fetal skin sensations, stimulated by movement of the womb fluids on the lanugos hairs, exist for months before he is born. The

fetus can see light (sunlight can be perceived as a golden glow shining through the wall of the womb) and sound, can be heard, both the mother's intestinal sounds, and loud noises from the outside world. The actively growing nervous system of the fetus is nourished by dreaming. Recent research shows both that dreaming time is a time when brain protein is replenished; and that the fetus dreams more than the post-natal child.

This threefold division of the organ systems is not simply a feature of embryonic life. It is fundamental to the organization of the brain, as I shall show, and it is likely that it is fundamental to the development of character-structure.

## THE THREE DIVISIONS OF THE BRAIN

A few years ago, when I was taking a course for the Open University on the biological basis of behaviour, I was required to digest and organise a large amount of complex information on the processes of the brain and how it functions. It seemed to me that the most fundamental separation of all this data was into a three-fold division: 1. Structures and functions concerned with the deep energy processes of the body, and its metabolic systems; 2. Structures and functions engineered with behaviour, movement and motor expression. and 3. Structures and functions concerned with processing incoming information and the perception of the world.

These three great divisions, vegetative, sensory and motor – had no connection, at the time I did this work, with the three primary germ layers of the embryo; nor do I have a compulsion to arrange things in threes. Certainly I was aware of the relationship between these three brain divisions, perhaps they should be called aspects of mind, and the way Lowen described the somatic basis of ego-psychology. For he related the Id to the vegetative processes of the body; he related the ego to the functions of perception and motor control. Nevertheless, it still came as something of a shock to me to discover that such a division of brain processes were also made by the great Soviet neurologist, Luria,, who described them as follows:

There are solid grounds for distinguishing three principal functional units of the brain\_ whose participation is necessary for any type of mental activity. With some approximation to the truth they can be described as: 1. A unit for regulating tone or waking; 2. A unit for obtaining, processing and storing information; and 3. A unit for programming, regulating and verifying mental activity (Luria, 1973).

In his account of these, Luria relates the first unit to processes, which give the brain its charge of energy, amongst which he places first the metabolic processes of the organism. The second unit layers the visual, auditory, and general sensory processes and functions. The third unit is connected particularly with out-going impulses and the motor cortex of the brain.

Of course, Luria points out, these three units do not work independently: "each form of conscious activity is always a complex functional system and takes place through the combined working of all three brain units, each of which makes its own contribution."

This interdependence is equally true of the body, of course: the three germinal layers depend on each other, for sense organs need muscles to move them and food and air supply to nourish them, and so on.

At the level of commonsense, the three fold division applies to the heart also, which pumps blood to the muscle systems for action, to the brain for thought, and to the gut for digestion.

We do not do hard physical exercise after a meal for this reason, nor try to carry out difficult mental work and hard physical work at the same time usually.

## SEGMENTATION AND THE THREE BASIC POLARITIES OF THE BODY

Wilhelm Reich described the organisation of the body musculature in terms of a series of segments. He divided the body into seven zones of expressive functioning: an ocular segment including the eyes and the upper part of the head; an oral segment centred on the mouth; a cervical segment covering the throat and neck; a thoracic segment including the chest and arms; a diaphragmatic segment; an abdominal segment; and a pelvic segment, including the base of the spine and the legs.

What relationship can be found between such a segmental view of the form the body, and the embryological viewpoint, based as it is on three germinal layers of tissue and the resulting organ systems, and the three functional systems of energy-metabolism, information gathering, and motility?

For a brilliant and fascinating answer to this question I am indebted to the work of Otto Hartmann, whose book on Dynamic Morphology (Hartmann, 1959) I had the good fortune to discover when I was working on this study of embryonic form and bodily organization.

Hartmann's view of bodily organisation looks on it as an expression of two basic polarities: the first, between the head and the hollow organs of the trunk; the second, between the sensory system, based on the brain, and the locomotor system expressed through the musculature of the limbs. We can look on this as a polarity of the main ectodermal and endodermal organ systems on the one hand; and between the main ectodermal system, and the skeletal-motor system formed from the mesoderm on the other.

Whether a third polarity, between endoderm and mesoderm, has functional importance, is a question that is left open for the time being.

## THE TRIPLE ORGANISATION OF THE BODY COMPARTMENTS

The body has three basic compartments, the skull, the thorax, and the abdomen. Hartmann (Hartmann, 1959) shows that the functional systems of skull and abdomen are in many ways antithetic in design and function, whilst the design and functioning of the middle compartment, the thorax, is in some ways intermediate, having some qualities associated with both the lower and upper compartments. The ideas that follow are derived from his work.

The skull is the most closed and contained body compartment. It is enclosed or encapsulated more than the other two compartments, protecting the brain. The abdomen on the other hand has no bony shielding, is covered only by muscle sheets, which enable it to move in and out easily. The belly is recognized to be one of the most vulnerable areas of the body, the soft centre, most open to the world. The rib cage is intermediate in design: like the skull, it encloses and protects the contents of the chest, yet it also moves up and down like the abdomen. It is most shielded at the top where the fixed ribs form the narrowest orbits, and most open at the bottom, where the floating ribs form incomplete orbits.

Paradoxically, the functions are arranged inversely. The skull contains the brain and the principal sensory organs whose function is to take in information about the world at large: the centripetal skull has centrifugal sensory receptors. The abdomen on the other hand, which is

most exposed and open, contains the principal organs for the metabolism of the body's energy. The centrifugal belly has centripetal energy collection and storage organs. Breathing is related both to metabolism, and to states of consciousness. Inspiration and expiration are related to the rhythms of waking and sleeping, and these in turn reflect the basic polarity of alertness required for sensory functions of consciousness, and the unconscious metabolic processes, which continue even in sleep. Similarly, of the two circulatory systems - body circulation, and pulmonary circulation, one is linked to the metabolic system through the liver while the other is related to the functions of oxygenation and consciousness through the lungs.

## THE POLARITY OF THE HEAD AND THE LIMBS

The limbs express outwards and downwards flowing movements, which reach out to touch and manipulate the world, in situations where motor activity is called for. In situations of deep thought, however, the limbs tend to flex, and the back to round: the whole body, in the statue of Rodin's thinker, begins to take on the closed curves one associates with the centripetal form of the head. Thinking and action are like the charging and discharging strokes of a two-beat rhythm. The concentrating and focussing functions of thought are expressed in the capsule form of the skull; the dispersing, extensor functions of the limbs are expressed in the radiating bone patterns, one upper limb bone, two lower limb bones, then the fanning out into fingers and toes.

## THE POLARITY OF THE INNER AND OUTER CYLINDERS

Otto Hartmann deals only with the contrast between the head and the trunk, and between the head and the limbs. For some understanding of the relationship between the central organs of the trunk, and the outer muscles of the trunk, responsible for anti-gravitational tonus, and the co-ordination of the limbs, the clearest picture is given by Kurtz and Prester in their book *The Body Reveals* (Kurtz, 1976). They make a simple distinction between two levels of experience and relate these to the body. They distinguish an inner or core layer, involved with beingness, and an outer or extrinsic layer involved with action and doing.

The components of the extrinsic layer are: 1. The broad muscles connecting the pelvis, trunk and arms (*latissimus dorsi*), 2. The long muscles erecting the spine. (*sacro-spinalis*), 3. The large muscles of the thighs and arms, 4. The large muscles of the belly wall, 5. The large muscles joining the chest to the arms (*pectoralis major*), 6. Tissue sheaths surrounding these muscles with associated fat and skin.

The components of the core, or intrinsic layer are: 1. The deep organ systems of the body, including the heart and great blood vessels, 2. The bones and bone marrow, 3. Ligaments condensed around the bones, 4. Intrinsic muscles linking the bones with the spine, 5. The muscles linking the ribs (intercostals), 6. The diaphragm, 7. The large muscle (*psoas*) which goes from deep inside the body, joining the spine to the lower limbs.

Kurtz and Prester view these systems as two concentric cylinders:

At birth the inner cylinder or core is present, though underdeveloped. If the environment is appropriate the individual develops a solid core. On the other hand if the individual's emotional or spiritual development is blocked or distorted, the core is experienced as lacking or inadequate.

Seen in structural terms, the core is in the internal supporting pillar. It is important to understand that the outer layer develops in relation to the growth of the core. When the core is formed, the outer layer builds up above the core without strain. When it is weak, the outer layer either does not develop, and we have an undernourished, underdeveloped weak individual, or in various ways the outer layer overdevelops in an attempt to hold the structure up, or together (Kurtz, 1976).

Although these authors are looking at the two cylinders primarily from the viewpoint of the different muscles involved, reflecting the influence of Ida Rolf on their thinking, the concept of inner and outer cylinder is a more basic one. The central tube of the body is the gut; the outermost tube is the skin, with its sensory detectors capable of reaching into space; the intermediate tube is the muscular sheath which Kurtz and Prester describe under their term extrinsic. Muscles, sense detectors, and metabolic systems are involved with all three body cylinders; nevertheless the central system is primarily a deep organ system derived from endoderm; the intermediate system is primarily a large muscle system geared to extensor movement and locomotion, and derived from mesoderm; the outermost cylinder with its extensive neuro-sensory connections is primarily derived from ectoderm.

## ENERGY RESERVOIRS AND TYPES OF ARMOUR

In his book on the physical dynamics of character-structure Alexander Lowen describes the functioning of two energy reservoirs, the pelvis and the brain. "The greater pelvis", he writes, "includes the belly in front, the buttocks, the organs of discharge. The intensity of the genital discharge must depend upon how much energy can be accumulated in the reservoir system prior to release" (Lowen 1958). As examples of severe disturbance in this reservoir system Lowen mentions conditions of chronic ulcerative colitis and chronic spastic colitis: "In this condition the lack of a reservoir in the intestinal channel is immediately apparent".

Gerda Boyesen, (Boyesen, 1974) in her work on psycho-peristalsis, has dealt consistently with the abdominal reservoir. She has described the difference between an open system and a closed system, and shown how the gut can absorb and store nervous tension.

Lowen describes the brain reservoir as follows:

In the upper half of the body, the organ which restrains the impulse is the brain. Before the impulse is fed into the motor nerves which control muscular discharge, it is subjected to the examination and censorship of the sensory and association areas. If perception or memory counsel holding back, no motors discharge occurs. The main energy of the impulse is frozen on the sub cortical level or withdrawn back into the id system. One cannot comprehend the reality principle if one ignores the fact that the brain and in fact the whole head, can contain the most powerful impulses. The brain too, functions like a condenser, equal in capacity to the condenser-like function of the genital apparatus. The actual amount of energy which can be held and focussed in the human brain is tremendous. In very healthy organisms it creates a glow about the head (Lowen 1958).

What does Lowen mean by "the main energy of the impulse is frozen on the sub-cortical level, or withdrawn back into the id system?"

He clearly indicates that the organism has a choice. Let us leave this question unanswered

for the moment and consider a third reservoir system, the muscles and tissues. That energy can be stored here, and held (bound) prior to release is clearly described in Reich's account of muscular armour. It is explained in great detail, with attention to osmotic pressure of body fluids in the muscle tissues, in Gerda Boyesen's account of hypertonic and hypotonic processes. And it is also recognised by Lowen who writes, "Muscles can become tense when they are consciously holding back an impulse."

For example, one can become so angry that the muscles ache from holding back the impulse. In this case one feels the tension in the muscles (Lowen, 1958). Lowen also quotes the dramatic case-history that Reich gives, of the man he treated in Copenhagen during 1933- the case in fact from which he first began to grasp the dynamics of the vegetative process in the body. "Reich commented that when the muscles of the neck relaxed, powerful impulses broke through. From a multitude of such facts Reich deduced that emotional energy which could be expressed sexually or as anger or anxiety was bound by chronic muscular tensions" (Lowen, 1958).

It is thus possible to distinguish three types of reservoir: the abdominal-pelvic reservoir, the muscular reservoir, and the brain reservoir. Corresponding to these, if the energy held in the reservoirs undergoes stasis, and is withheld from discharge, we would expect to find three types of armouring.

The first of these to be discovered was the muscular armour. Lowen has described two forms of this - plate-like and mesh-like; but the ability of the body to store large amounts of energy in the muscular system so as to form a rigid armour he restricts to those who fall into the pattern he calls the "rigid characters." He says: "I reserve the use of the word 'armour' only for those "character-structures which include as part of the neurotic mechanism an ability to decrease sensitivity to hurt, This excludes all pre-genital structures (Lowen, 1958).

Pre-genital characters are armoured however, in Reich's use of the term; if they lack the well-developed muscular defences of the rigid characters, what kind of armour do they have? Gerda Boyesen used the term visceral armour to describe the tensions of the gastro-intestinal system which were detectable in every case she called abdominal closure. Many of the details of this kind of armouring are described in the series of papers on psycho-peristalsis.

For the third type of armour, which could be called cerebral armour, I believe there are two types. One form occurs at the sub-cortical level and the other at the cortical level. Severe sub-cortical armouring is described by Reich in his case-history of the schizophrenic split:

Is it possible that the schizophrenic attack or process is locally anchored just as are other disease symptoms such as anorexia or a headache or cardiac anxiety? Is it the base of the brain, the region of the crossing of the optic nerve (Reich, 1948)? Robert Dew, (Dew, 1974) in an article on headaches in the Journal of Orgonomy, suggests that migraine, caused by vasodilation of the cerebral blood vessels, may be the body's attempt to overcome such contractions.

By cortical armouring, I understand any process whereby energy is held in a silent thought-process which become a block to communication. We do not know exactly how much energy can be stored or expended in thinking, or the exact dynamics of this. In mental activity requiring intense concentration – game of chess – large amounts of energy are consumed. Spassky, in the world championship against Bobby Fischer a few years ago, lost over a stone in weight. Roughly 20% of the body's oxygen supply goes to nourish the silent processes which, if there is a split between impressions and expressions, may show no outward signs. In therapy, if

one works to relax the body without paying attention to this armour process, it is possible to be deceived. Hypotonic muscles are very relaxed. Where is the energy held? The person whose body appears to relax so well has gone 'far away'; he has withdrawn his energy into unexpressed thinking which can be difficult to get at. How after all do you massage the brain? I shall deal with ways of working with cerebral armour in a later section of this article.

## THE OCULAR ZONE AND THE LIBIDINAL PHASES

Elsworth Baker, in his book "Man in the Trap" (Baker, 1967), postulated a fourth erogenous zone, the ocular zone, which was as crucial for development psychology as the classical zones of psycho-analysis: the oral, the anal, and the genital. His argument is persuasive, and I used it myself in my paper on "Stress and Character Structure" (Boadella, 1974). There is one problem: the ocular period and the oral period are contemporary in time, they are both said to occur during the first few months of life, yet the ocular zone is held to be even more crucial for later emotional health than the oral zone.

In "Stress and Character" I related two polarised character patterns, the schizoid and the hysterical, to this zone. But something was not right. Could it be the ocular zone has its dominant impact even earlier than the oral period? If so that would place its developmental phase in the period before birth: it would imply character-formation within the womb.

This problem was clarified greatly by the embryological organisation I have already described. For it is clear that the neuro-sensory system is the one that is most sensitised to states within the womb. Shocks to the eyes, ears, and skin surface of the newborn, such as are described in Leboyer's book "Birth Without Violence" (Leboyer, 1975), merely continue the shocks that a difficult birth deliver to the sensory system of the fetus. Of course these shocks pervade the total organism. But they are delivered through the sensory channels, within the womb primarily the skin, the largest organ of the body.

The importance of the skin and of skin contact is that it is our earliest and most deeply rooted experience of the world. Long before we drink the world in through the gut, or walk on its surface and experience the pull of its gravity on our muscles, it contacts as through its massage of the womb walls, pleasurable and relaxing, or painful and stressing, according to the condition of the mother's body.

Two of the other libidinal phases, oral and anal, described character patterns formed from experiences associated with the two ends of the intestinal canal. The final libidinal phase, the genital period, was precisely the period for which Lowen described the development of a fully fledged muscular armour. It began to look as though there corresponded to the three primary germ layers of the embryo, three basic types of character-patterning: genital, pre-genital, and pre-natal. There seemed to be a connection somewhere between the three types of armouring: muscular armouring typifying the genital character patterns (oral) and (anal); and in some way cerebral armour might be related to uterine character patterns. These were tentative conclusions needing further exploration.

## UTERINE FEELINGS, STATES OF BIRTH, AND PRE-NATAL CHARACTER PATTERNS

Stanislav Grof, (Grof, 1975) in his book about pre-natal experience based on memories

recovered under LSD, distinguished three types of experience during birth. These were described in Vol. 6 No. 3 *Energy & Character* in my article on acid trips (Lake, 1966). Grof relates these images of heaven, hell and purgatory.

The experience of 'hell' in the womb is one of cosmic engulfment. Lake relates it to the state of mind that he calls schizoid dread (Lake, 1966). Lowen, in describing the origin of the schizoid personality characteristics, has this to say:

The proposition that the predisposition to the schizoid disturbance has a prenatal origin throws light upon several important elements in this illness:

1. It supports the theory of a constitutional factor without appealing to heredity to justify this hypothesis.
2. It explains the commitment to the womb which is often found at the centre of this disturbance. The term "commitment to the womb" describes the schizoid individual's endeavour to re-establish a parasitic type of relationship in adult life and his reluctance to cut the umbilical cord that ties to his mother. This tendency is more evident in the schizophrenic patient, but it exists to some degree in all schizoid individuals. It indicates a fixation at the pre-natal stage because the needs of the organism at that stage were not fulfilled. It suggests that the difficulties the schizoid person has with such basic functions as sucking and breathing stem from inadequate development in pre-natal life.
3. It provides a firmer base for the view that the schizoid disturbance is, in part, a deficiency disease. The deficiency is the lack of warmth, on the physical level, in the womb, and on the emotional level in post-natal life.
4. This extension of the origin of the schizoid problem to the period of gestation enables one to venture some interpretations of patients' feelings that would not otherwise be logical. For example, the following remark by a patient may refer to this period: 'I'm afraid. They want me to die, but I won't let them. I feel on guard – waiting for something to happen. Something to do with the dark' (Lowen, 1967).

Grof describes the imagery associated with the 'purgatory' experience in these words:

The most important characteristic of this pattern is the atmosphere of titanic fight. Immense condensation and explosive release is experienced... The visions typically accompanying these experiences involve various dynamic geometrical images in rich colors, exploding volcanoes or atom bombs, launched missiles, gigantic fires, dramatic scenes of war destruction, power plants, hydro- electric stations, high voltage electrical conduit and flash discharges, cosmic fireworks, etc. (Grof, 1975).

In my article describing his work, I wrote:

In the explosive disaster images we can recognize the recurrent themes of hysterical nightmares: the threat of being destroyed, basically by fire. The passage through fire can continue for years, as long as the hysterical way of being in the world remains unaltered." The symptoms which Grof recovered under acid are familiar enough from the symptoms of hysteria: "torturing pains in the body, cardiac distress, profuse sweating, alternating chills and hot flushes, nausea, and tension discharged in tremors, twitches, jerks and complex twisting movements (Boadella, 1974).

In “Stress and Character Structure” I have already described the contrasting views of the origins of hysteria given by Lowen and by Lake. The hysteric suffers a double disappointment from the father operating in the oedipal period, and from the mother operating much earlier. Lowen, following Freud and Reich has concentrated on the body dynamics of the rigid, genital form from of hysteria. Lake on the other hand had concentrated on the pre-genital core of hysteria, which he shows to be the polar opposite of the schizoid reaction pattern.

If the schizoid dynamics are crucially related to birth experience, or uterine conditions, could it be that hysteria was similarly determined? Lake did not seem to have arrived at this conclusion at the time he wrote his principal book. Yet the word itself provides a clue to its meaning. Francis Mott provides one of the most brilliant elucidations of this that I have come across:

That ancient peoples know something of this condition is enshrined in the very etymology of the word hysteria. This word derives from the Greek word ‘hustera’, which means a womb. (Uterus derives from the same root). The condition known as hysteria was indeed for many centuries regarded as an obscure defect of the womb, and even as a slipping or ‘wandering’ of the uterus. Thus it was thought of as a disease peculiar to women – a view which still obtained in the medical profession as late as a generation ago. It is recorded by Freud’s disciple Brill, that when Freud spoke of hysteria in a man he was rebuked by a Viennese physician with the words: ‘hysteria really means uterus; how then can a man become hysterical?’

It is not the hysteric’s own uterus that is infected, wandering, or slipping. It is the configurational affect of the mother’s womb which has wandered into the hysteric’s body and has infected his respiratory, nutritional, excretive and genital rhythms... we may now understand even more clearly the power and simple truth of the Lilith myth. Truly she haunts the wombs of pregnant women and kidnaps the newborn child, for it is her terrible power which invests the mother’s womb its frightening dragon like quality for the child, and which ‘wanders’ as a womb feeling into the tubes of the body and inspires them with a terrible will to grip and crush nuclear power (Mott, 1948).

Whereas many schizoid symptoms seem to show a need to regress to the womb, to be insulated within a capsule, and to return to a pre-terrestrial dream-life, the hysteric is in flight from the womb. “Every child is seeking to escape from the mother and the womb is part of its life achievement”, writes Mott, but for the person with marked hysterical features, the compulsion to be born, to escape the mother, is a desperate one. In the fugue states, amnesias, twilight states, and dissociations of classical hysteria we see some of the by-products of cerebral armouring, different from the head-pressure suffered by the schizoid person (17) in this respect; that the schizoid person has learned to live with sometimes inescapable head pressure; the hysteric on the other hand is in flight from it, constantly finding ways of volcanically dissolving head-tension by siphoning it off into bodily symptoms. For him the flight from the womb is also a flight from his own head. Here we meet another of the paradoxes of hysterical body symptoms: many of the comp its refer to the cardio-vascular or gastro-intestinal systems, yet there is nothing wrong with the hysteric body in organic terms. Conversion-hysteria is precisely the translation of unbearable thoughts, images and emotions, into slightly more bearable sensations, and pains and aches.

“These body signs”, Lake writes, “are not caused by organic deficits or disorders as ordinary disease are. They are not primarily medical signs even though an arm, long disused on account of an hysterical paralysis, will eventually show muscular atrophy. The body signs in hysteria are similar to the ‘real’, ‘germine’ organic diseases, but not so similar as to deceive a neurologist. They are the patient’s idea of the disease which he has elaborated, by processes which are largely unconscious... They are an image or reproduction, a picture or icon of the ‘real thing’...

“This is a wordless language of illness, directed from a sufferer who cannot diagnose his own malady because the ‘thing itself’ is an inexpressible experience, reverberating from its place in the wordless phase of life within the womb of the spirit” (Lake, 1966).

The hysteric form of cerebral armouring is thus based on exclusion: he locks out thought, the process of planning, meditation, and internalisation, The hysteric is really saying: “attend to my body, which is suffering, but wherever you do, don’t touch my head”. If the schizoid person is locked in his head, the hysteric is locked out of his head; but in both cases the process of the head-dynamic is central.

In discussion with Frank Lake he pointed out that the ectoderm is of two primary types: cerebral ectoderm and cutaneous ectoderm. The schizoid person with his emphasis on thoughts tends to identify with the cerebral ectoderm; while the hysteric person, in whom touch-hunger is high, tends to identify more with cutaneous ectoderm: “touch my skin and prove that I’m alive.”

Lake has made use of Pavlov’s concept of trans-marginal stress to suggest that the distinction between schizoid and hysteric reactions depends on the intensity of the stress stimulus, which up to a certain point produces reactions in one direction, and beyond that point leads in the opposite direction. In “Stress and Character Structure” I used the analogy of panic-towards-warmth and adaptation-to-cold as everyday examples of this polarity.

Lake also uses the term “negative functional shift” for the move from the active, struggling response to stress, towards the resigned and withdrawn response to even greater stress. If the stress we are concerned with at the moment is birth-stress, then hell is worse than purgatory, and the ‘intolerable experience of no-exit’, which Grof describes, is a more dreadful state to bear than the ‘titanic struggle’ of fighting one’s way out of the womb.

This is how Lake describes the function shift:

Our basic attitude to life, whether affirming it and struggling to live, or rejecting it as too painful and retreating towards a longed-for death, is communicated to all important co-ordinating centre in the brain known as the hypothalamus. This is also the centre which controls many alterable functions of the body, preparing the whole psychophysical organism, by means of various functional shifts, to facilitate this basic attitude or intention, whatever it is.

Normal hypothalamic responses prepare the body to carry out the purposes of an organism healthily orientated to the rhythms of life. ... And so if life is threatened are the preparations for a fight to defend it. In depression this mobilisation for self-preservation can become unconscious, chronic and damaging but it was meant: to assert life. Of quite another order is the negative functional shift, which occurs, or something very like it, in rodents hibernating when the intolerable hardships of winter make all ordinary life impossible, and in certain severe depressions in man... My hypothesis is that we are justified in linking the negative or life-negating hypothalamic functioning with the death-

wishes of the schizoid position.” (16.174) In this view the struggle to live is transformed, beyond a crucial threshold, into the struggle to die.

It seems we are dealing with basic patterns of excitability in the nervous system. In my series of papers on coma and convulsion (Boadella, 1975) I illustrated how many of the modalities of therapy, the growth movement, and certain meditation systems, were characterised by basic patterns of handling nervous energy. In the introduction to this series I postulate metabolic states: tension with charge, relaxation with discharge, relaxation with charge, and tension with discharge. The first two states describe the natural pulsations of an alive organism. In the pleasurable and expansive orgasmic movements of a healthy birth these states predominate. I had not, at the time of writing that series, made the link with birth however. It now seems likely that these two patterns of excitability were related to the birth states. The tense-convulsive-discharge process was the Titanic struggle of birth translated into post-natal life, with the determination to fight one’s way out of every comer, or flee in panic from situations of stasis and confinement while the resigned, unnaturally calm, highly charged and imploded states, which I summed up under the term ‘coma,’ related to the negative functional shift of the schizoid position. Stanley Keleman (Keleman 1975) also recognised these two patterns of excitability in people’s styles of dying. Otto Hartmann similarly writes about centrifugal and centripetal character reactions (Kurts, 1976).<sup>1</sup>

## UMBILICAL CASTRATION AND THE THIRD STAGE OF LABOUR

The third stage of labour is the time when the baby, already delivered from the womb is separated from the placenta, and the placenta from the mother. It is a time of arrival, during which the baby undergoes a number of crucial transitions. Leboyer, the French doctor who wrote on ‘Birth Without Violence’ has described how important it is for the child’s future well-being that his first introduction to the world, and its impact on his bodily functions, should be handled sensitively. Specifically he describes how a baby can experience pleasure or pain in the way his bodily systems adjust to the new types of functioning required by life outside the womb. We can distinguish:

1. A sensory transition. The newborn baby comes into a world which is normally at least thirty degrees cooler than life in the womb. Le Boyer has concentrated on the pleasure or trauma associated with skin sensations, the contact of the eye with light and the contact of the ear with sound.

2. (a) A circulatory respiratory transition. At birth the circulatory system reroutes itself, as the channels to the lungs open, the flow of blood to the placenta closes off, and the hole in the heart (present throughout uterine life) is shut down.

2. (b) An alimentary transition. This is discussed at length shortly.

3. A gravitational transition. This is discussed in a later article in this series. Specifically, the child moves: from a world dominated by skin sensations to a world where an increasing amount of impressions come from distance-receptors mainly the eyes and ears; from a world where air and food come through the nose and mouth instead of through the navel; from a world where the muscles are weightless and suspended in liquid to a world where they have an anti-gravity function. The relationship between these transitions and the embryonic layers is obvious and rich with meaning for later character-development.

<sup>1</sup> See also James Quen’s article on power and withdrawal. (Quen, 1976)

## THE GUTS AS CHARACTER

The post-natal systems for obtaining air and food are closely linked. It is possible to swallow air into the stomach and breathe food into the lungs. Many infants frequently do, resulting in vomiting or wind. The close association of the gut and breathing is found also at the embryonic level, since the organ systems of both have a common origin in the endoderm.

In popular speech we say that a person with guts has character, thus recognizing the crucial importance of this organ-system in shaping personality. Freud, in distinguishing oral and anal character types, began the work of understanding how character-attitudes reflect experiences in this period when the infant is closely dependent upon another person for activities at both ends of the gut. Reich and Lowen have greatly extended these insights, by describing some of the characteristics of the bodily tensions and defences developed by people with grave stress over these functions.

Gerda Boyesen's work on psycho-peristalsis has developed a whole biological psychology out of the relationships of tension and relaxation in the intestine, and the vegetative flow of energy between the visceral system and the muscular system. Energy can be bound in the twenty-five foot convolutions of the body's central tube and the associated nerve plexi, and the flow of tissue fluids is affected by impulses from the autonomic nerves of the abdominal plexi. She refers to two states of an open and dosed system in the abdomen. In states of severely disturbed peristalsis, conditions like gastric ulcer, colitis, globus hystericus and other troubles with intestinal tract symptoms will be found.

Whilst any form of stress may be reflected in the gut, tension in late, periods of life can at least in part be absorbed, stored and discharged through the locomotor system. But in this early period the gut is particularly vulnerable because it is being educated by the parents into opening and closing at socially approved times. A child is taught when and when not to suck in and spit out, to pee and to shit. The result is that patterns of opening and closing, both as sphincter tensions, and as character attitudes to life, are learned very early.

In my article on "Stress and Character Structure" (Boadella, 1974) I suggested that in the oral period there were two polarized character experiences: the experience of emptiness and deprivation that Lowen has associated with the 'empty sack' body-attitude of the oral personality; and the experience of having been in some way poisoned at the sources of nourishment, which Lake has shown to be basic to the destruction of the sense of well-being in the paranoid person. Similarly in the anal period, Lowen has stressed the hole of humiliation and shaming of the formation of the masochistic character.

The classification of character-patterns is still a controversial subject, both in psycho-analysis, and within the Reichian and bio-energetic tradition. Baker, (Baker, 1967), Raphael, (Raphael, 1970) and Lowen (Lowen, 1958) all provide clear-cut characterological descriptions, but there is a lack of agreement between their accounts, as well as some overlap, in spite of the fact that they all studied with Reich. I have already tried to relate Lowen's hierarchical classification of character to Lake 's existential way of looking at the way people's experience shapes their personality. (Boadella, 1974)

How for instance does one look at the difference between the masochistic character, clearly linked to bad experiences over anal functioning in many cases, and the classic anal-compulsive character?

Lowen describes a patient “whose behaviour recapitulated his early toilet experiences. On the one hand his function, anal and otherwise, was blocked by an intense subconscious obstinacy, on the other hand the exigencies of life required that he produce something, in work as well as anally. He had to move (bowel movements included) regardless of his holding back” (Lowen, 1958).

Lowen describes how he thought at first that people with such features were anal characters, but, he points out,

They had none of the traits associated with Freud’s description of the anal character: orderliness, parsimony or obstinacy ... Then I thought that this was really intestinal or rectal functioning...The lack of a ‘backbone feeling’ makes these individuals contract the gut to give them a sense of support. Of course it cannot and does nor stand up and collapse is inevitable (Lowen 1958).

The classic anal compulsive character on the other hand, has developed a backbone. Lowen classifies him with the rigid characters.

The masochist is a classic expression of problems created in the period of gastro-intestinal dependency.

Lowen writes:

The tensions in the masochist centre about the two openings of the intestinal tract in his throat there is the conflict created by the fear that food will be forced in or that he may throw up. In the anus and rectum there is the fear that he will move his bowels or that something may be pushed in. The shoulders are held tight to guard the throat; the buttocks and thighs are tense to guard the anus. Behind both tensions lie impulses to evacuate the contents of the alimentary tract (Lowen 1958).

The patterns of excitability, learned in the nervous system during the uterine stage, show up two tendencies, assertion and resignation. In the uterine character patterns the schizoid experience is one of resignation through paralysis and retreating from the body into the head, while the hysterical trend is assertion through struggle and flight. This basic polarity recurs at both ends of the gastro-intestinal tract. The classic oral- deprived person gives up at the mouth, becomes closed off, is afraid to reach, and unable to suck satisfyingly, learns to ‘suck’ characterologically. The paranoid reaction pattern is much more assertive, spits out unwanted contents, and moves with more rigidity to defend itself against being orally controlled.

Similarly, the child who learns to hold in his body contents, or to squeeze them out under pressure, in response to over-concern from his parents, may accept the humiliating role, or may rebel against it. The basic polarity between masochistic and psychopathic reactions I have already described earlier (Boadella, 1974).

The assertive patterns discussed so far (hysteria, paranoia, psychopathy) disguise their lacks with the patterns they are reactive against, because they are desperate attempts to get away from the stress associated with a particular life-period or organ system. Thus, the hysteric is in flight from the womb and rushes prematurely towards sexual acting out (genitality functioning as a defence against contact). The paranoid person pushes away from the position of oral weakness into an over-blown strength. The psychopath treats other people in the same way that the masochist treats the content of his own gut; squeezing, pushing and manipulating. All

the assertive patterns show moves in the direction of acquiring some of the rigidity, which is shown in most developed form in the classical armoured characters (compulsive-dominant, and compulsive-compliant).

A close association between intestinal rhythms and breathing rhythms might be expected in view of their embryonic origin, and the fact that starting to breath and learning to suck are closely related. So, it is to look in a fresh way at styles of breathing.

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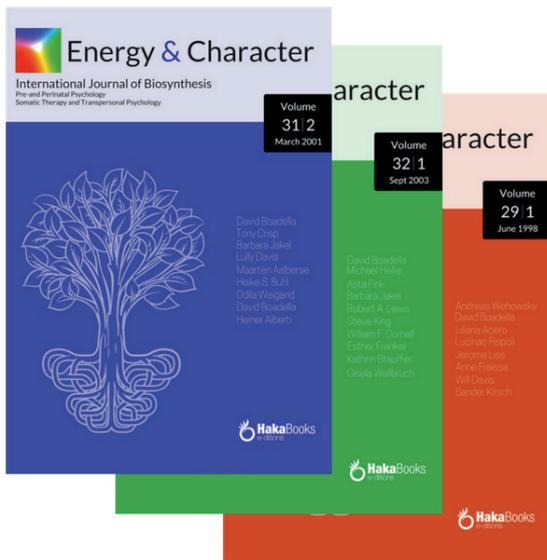
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## Biography

David Boadella (born 1931), B.A., M.Ed., D.Sc.hon, Psychotherapist SPV, UKCP and ECP. Studied education, literature and psychology. Trained in character-analytic vegetotherapy. Founder of Biosynthesis. He has spent many years in psychotherapeutic practice. He holds lectures worldwide, and is the author of numerous books and articles. He has been publishing the journal "Energy & Character" since 1970. In 1995 he was awarded an honorary doctorate from the "Open International University of Complementary Medicine". A selection of David Boadella's books: "Befreite Lebensenergie / Lifestreams" (Kösel / Routledge), "Wilhelm Reich: The evolution of his work" (Arkana).

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