

now our friend Mr. G. W. is at the head of the firm of building contractors and is making headway in recovering the lost prestige of the firm and restoration of its much-respected name.

- You will say, "What a case." Well, what I've written is only a part of the story. Much of my own gruelling experiences have been left out. The doctor's side of the case is rarely quoted, but we do experience a lot of deep anxiety and disappointments which seem to tear us to pieces, but then, we get our joy and reward for hard work and patient continuance in well doing. The reward for us is "the triumph for Homœopathy" over all other therapies in curing the "Case for Homœopathy" where others have failed.

—*Heal Thyself, June, 1952*

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## VITAL FORCE

BY DR. S. C. ANAND, M.B., B.S., EX-I.M.S.

There are two schools of biologists, Mechanistic and Vitalistic. The former regard all the phenomena of life as due to the laws of physics and chemistry, and look forward to the day when the extension of our knowledge will enable us to explain them all in terms of these sciences. We are ignorant of the details of the processes in which they occur. We are as ever ignorant how the purposive direction of the life processes is brought about in the structure of the living machine of our body. According to this theory all physical phenomena are variances in the structure or configuration of material systems, thus reducing all vital and physiological processes to the elements of Mass and Motion. Wundt says that according to this causal conception long prevalent in the kindred departments of natural sciences, which regard nature as a single chain of causes and effects, the ultimate laws of causal actions are the

laws of mechanics. Physiology thus appears as a branch of applied physics, its problem being a reduction of vital phenomena to general physical laws, and thus ultimately to the fundamental laws of Mechanics. Professor Haeckel says, "The general theory of evolution . . . . . assumes that in nature there is a great, unital, continuous and everlasting process of development, and that all natural phenomena, without exception, *from the motion of the celestial bodies and the fall of the rolling stone up to the growth of the plant and the consciousness of man*, are subject to the same great law of causation—that they are ultimately to be reduced to atomic mechanics. Dr. Buchner denies existence to psychology or subjective philosophy.

As opposed to this Mechanistic school of biologists the Vitalistic school believes that the present impossibility of understanding biological phenomena in the light of physical and chemical facts is due to the operation in living beings of a further factor or factors, without a knowledge of which life will never be explained. It is held that no machine can be conceived which would direct its own activity in the way in which the activity of a living being is directed—that, indeed, the word "Machine" can only be used in a limited sense of a living organism. As to the nature of the factor in question, if it exists, nothing is known, though there is a tendency among vitalists to regard it as psychical; but it must in any case be able to direct the physical and chemical forces of life without increasing or diminishing their energy. The organised body is one thing. The life in it is quite another. Organised bodies are characterised by peculiarities of structure, of composition, and of origin. The theories of special creation and of evolution agree in regarding the unorganised world as primary and organised bodies as derived from it. One of the hardest-fought controversies in the history of science has been between the supporters on the one hand of the theory of *Abiogenesis or Spontaneous generation*—the origin of living from lifeless matter—and on the other

of the rival theory of *Biogenesis—viz; Omne vivus e vivo* (Life from life). All life is a part of a single, self-continued process. Life requires substances which do not arise in lifeless nature and involves processes which lifeless things cannot carry out. The circumstances which brought into being protoplasm in a state of metabolism must also have brought into being a rudimentary capacity for purposive reaction. The primary features of life are (1) Irritability (2) Automatism (3) Disintegration with evolution of energy (4) Incorporation of new matter; assimilation being a property peculiar to living beings (5) Reproduction (6) Purposiveness or Directiveness. Thus the peculiar features of the living beings are of two kinds. Some of the processes which constitute life—assimilation, conduction—seem at present to involve capabilities which cannot be explained by the action of the forms of energy which are found in lifeless matter. On the other hand, all the life processes, whether they involve such capabilities or not, are peculiar in that they exhibit direction towards the welfare of the bodies in which they occur. Of this direction the processes of development, both in reproduction and in regeneration, are a special case. Our body is a machine but it differs from all other machines (1) possibly in possessing powers not found elsewhere, (2) certainly in that its activity is directed to its own preservation and to that of its kind. In the present state of knowledge the division between living things and lifeless ones is wide and clear. How, however, these processes of life came to be connected and directed in living beings as compared to the lifeless are yet not explainable.

Cushny, Richards and Winton have put forward evidence of a selective absorption which depends on a vital activity of the cells of the tubules of the kidney and which involves the use of oxygen. The sugar and chlorides, known as thresh-hold substances are reabsorbed and others are fully excreted. In the small intestines also there is a selective absorption due to the vital activity of the cells.

0.4 per cent Na Cl is more rapidly absorbed than water, while isotonic solutions of Sodium or Magnesium Sulphates are unabsorbed. There is also considerable selectivity in regard to the different carbohydrates, *viz.* Glucose is more easily absorbed than Lactose or Xylose, although the latter have a smaller molecule. This is in direct conflict with physical laws and can only be explained as a result of *vital action* on the part of the cells of the mucous membrane. Most difficult to understand is the fact that if some of the animal's own serum is placed on the gut the Sodium and Magnesium Sulphate Solutions are also absorbed by the gut.

In the body Diffusion, Osmosis, and Filtration take place. Further complicating these processes there is another force, namely, the secretory or selective activity of the living cells of which membranes are composed. This is sometimes called by the name Vital Action which is unsatisfactory and unscientific expressions. We have undoubtedly some other force, or some other manifestation of force in living membranes. It probably is some physical or chemical property of living matter which has not yet been brought into line with the known chemical and physical forces which operate in the inorganic world. We cannot deny its existence, for it sometimes operates so as to neutralise the known forces of Osmosis and Filtration. Living cells do not behave like the dead members of a dialyser, they have a selective action, picking out some substances and passing them through, and rejecting others. Permeability is greater to some ions than others, only explains it partially. Hamburger's researches have shown that this permeability may become altered in diseased conditions, hence cellular activity becomes abnormal. Electric charges, molecular size in passing through the sieve-like membrane, solution affinities, surface tension are some of the other factors involved.

Waymouth Reid has shown, if the living epithelium of the intestine is removed, absorption comes very nearly to

a stand-still, although from the purely physical stand-point removal of the thick columnar epithelium would increase the facilities for osmosis and filtration. It has been maintained that there is a plastic carbon-compound called Protoplasm, composed of four inseparable elements—Carbon, •Oxygen, Hydrogen and Nitrogen—which is the physical basis of life, and consequently very often the doctrine of Organisation-Genesis of life. But to do justice to this physical basis of life, it must be remarked that, although the presence of these four elements apparently fixes it as a physical basis, that it possesses always a definite composition, is very much doubted. "It has not yet been shown that the living matter, which we designate by the convenient term of protoplasm, has universally and in all cases a constant and undeviating chemical composition; and indeed there is reason to believe that this is not the case". Further-more in consideration of the vital phenomena presented by the lowest animals, scientific authorities have been obliged to confess that organisation is not an intrinsic and indispensable condition of vital phenomena. Speaking of Amoeba, remarks Professor Nicholson, "This animalcule, which is structurally little more than a mobile lump of semi-fluid protoplasm, digests as perfectly as far as the result itself is concerned—as does the most highly organised animal with the most complex digestive apparatus. It takes food into its interior, it digests it without the presence of a single organ for the purpose; and, still more, it possesses that inexplicable selective power by which it assimilates out of its food such constituents as it needs, whilst it rejects the remainder. In the present state of our knowledge, therefore, we must conclude that even in the process of digestion, as exhibited in the Amoeba, there is something that is not merely physical or chemical. Similarly any organism, when just dead, consists of the same protoplasm as before, in the same form, and with the same arrangements; but it has most unquestionably lost a thing by which all its properties and actions were modified

and some of them were produced. What that something is, we do not know, and perhaps never shall know; and it is possible, though highly improbable, that future discoveries may demonstrate that it is merely a subtle modification of some physical force. . . . It appears, namely, in the highest degree probable, that every vital action has in it something which is not merely physical and chemical, but which is conditioned by an unknown force, higher in its nature and distinct in kind as compared with all other forces. The presence of this vital "force" may be recognised even in the simplest phenomena of nutrition; and no attempt even has hitherto been made to explain the phenomena of reproduction by the working of any known physical or chemical force."

Speaking of the same, Professor Huxley remarks: "It seems difficult to imagine a state of organisation lower than that of *Gregarinida*, and yet many of the *Rhizopoda* are still simpler. Nor is there any group of the animal kingdom which more admirably illustrates a very well-founded doctrine, and which was often advocated by John Hunter, that *life is the cause and not the consequence of organisation*, for, in these lowest forms of animal life there is absolutely nothing worthy of the name of organisation to be discovered by the microscopist, though assisted by the beautiful instruments that are now constructed. In the substance of many of these creatures, nothing is to be discovered but a mass of jelly, which might be represented by a little particle of thin glue. Not that it corresponds with the latter in composition, but it has that texture and sort of aspect; it is structureless and organless, and without definitely formed parts. Nevertheless, it possesses all the essential properties and characters of vitality; it is produced from a body like itself, it is capable of assimilating nourishment and of exerting movements. Nay, more, it can produce a shell, a structure, in many cases, of extraordinary complexity and most singular beauty. That this particle of jelly is capable of guiding physical forces, in such a

manner as to give rise to those exquisite and almost mathematically arranged structures—being itself structureless and without permanent distinction or separation of parts—is, to my mind, *a fact of the profoundest significance.*”

The irresistible conclusion to which the above leads, and which Haeckel also held, is that “the forms of their organisms and of their organs result entirely from their life.” It is clear, then, that by whatsoever name it may be called, Life, Vital Principle, Organising Principle, Occult Cause, semmerial Energy, *Vis Medicatrix Naturae*, Anima or so many other names, modern scientific world had come face to face with a dynamic physiological *Reality* which they call LIFE. It is no more a mere breath, a mere phantom, or a mere product of organisation. It is rather a SUBTLE, REFINED DYNAMIC SUBSTANCE, a reality that builds up the organisation, causes growth, vitality, and motion, repairs injuries, makes up losses, feeds, feels, is sentient, originates actions, resists overcomes and cures diseases. This is the irresistible conclusion to which physiological researches have led sincere investigators and philosophers in western countries. Thus it is that they have been compelled to admit a reality, (call it material if it will please you), yet, a reality, which the ancient philosophers of the east styled ATMA.

Whereas physicians and medical men have proceeded on the one side to approach the belief in a vital principle, theoretic speculation on biology has advanced far enough to prove the question of the genesis of life. And honest investigators and sincere writers have been compelled to recognise that, Life, however, may also be considered as a *cause*, since amongst the phenomena presented by all living beings, there are some which cannot be referred to the action of known physiological or chemical laws, and which, therefore, temporarily, at any rate, we must term “VITAL”.

Deep researches in physiology have revealed the fact that the human organisation is endowed with a self-con-

servative energy. And physicians in different ages have come to the conclusion, on the basis of their medical experience with the sick that there is in the human organisation a self-healing power. Thus, von Helmont was obliged to recognize a principle which he called "Archeus", and regarded it as independent of inert and passive matter—a principle that presided over all diseases and inspired the proper medicines with vitality enough to heal or restore. The same principle was called by Stahl "Anima", and was regarded as supplying losses and repairing injuries, besides overcoming diseases. The same principle was called by Whytt "The Sentient Principle". It was differently styled by Dr. Cullen, who called it the "Vis Medicatrix Naturae"; by Dr. Brown, who called it the "Caloric"; by Dr. Darwin, who named it "Sensorial Energy"; by Rush, who called it "Occult Cause"; by Brouasais, who called it "Vital Chemistry" and by Hooper, who calls it the "Vital Principle". Living Power, Conservative Force, Economy of Human Nature, and Powers of Life—these and many such others have been the names by which the same principle has been called.

All attempts of Philosophy or Science to pry into the Ineffable have failed helplessly. Time, Space, and Causality, contemplated either from the subjective or objective point of view, defy all efforts to discover their nature. The ultimate nature of Matter, Motion, Force or Energy presents insurmountable difficulties to the inquiring mind. Atomic theory is beset with contradictions; Bosevich's theory of Centres of Force, in the long run fares no better. All the dogmatic theologies of the world have more or less superstition stamped on their face. One system of philosophy explodes the other, the latter in turn spares no pains to return the compliment. From this it is apparent that the interior of Nature will for ever remain a mystery to the mind and that it is not given to the human intellect to sound the depths of cosmos. A pair of tongs can catch almost anything else, but how can it turn



back and grasp the very fingers which hold it. The Veda says that this ingrained question must necessarily find its solution, though not through philosophy, science or earthly love. The question itself being included in the *Anirvachaniya Maya* (insoluble riddle of the whole world) forms a part of the indescribable mystery it wants to unravel.

Vitalism or Henry Bergson's *Elan Vital*, H.A.E. Driesch's *Etelechy*, William McDougall's "Soul" are other names for the same force viz: Vital Force of Hahnemann. According to the Vaisheshika Philosophy "Atma" or Human Spirit is one of the nine *Dravyas* or noumenon or substratum or matter of the universe, in which Attributes and Actions inhere. It is a Refined and Subtle Entity, Imperceptible by the senses; and hence its existence has to be inferred from the phenomena or end-result of various senses. This *Atma* is *Cognisable*; whereas the *body*, (including visible organs of senses), *Manas* (Mind) and *Indriyas* (Invisible Organisation or Sensorium of Sense Organs) are unconscious. This peculiar substance, *Atma*, is the seat of two grand manifestations, the *Voluntary* and *Involuntary*. The voluntary or conscious functions of *Atma* are the functions called Cognition, Feeling and Will; also called *Buddhi* (Consciousness), *Sukha* (feeling of pleasure), *Dukha* (feeling of pain), *Ichha* (desire), *Dwesh* (repulsions), and *Prayatna* (conscious exertion). The other set of functions of *Atma* called *Involuntary* include *Pranapana* or Respiration, *Nimeshonmesha* or Nictitation (winking), *Jivana* or Physiologic Building and Animation (Metabolism), *Manas* or Sensation, *Gati* or movement, *Indriya* or activity of the senses, and *Antarvikara* or Organic feelings." The subject of *Atma* is very vast and beyond the ken of this article. The writer feels diffident as he finds himself not even remotely qualified to talk upon it. Most probably Hahnemann's Vital Force or Vital Principle upon which he based his *Similia Similibus Curèntur* (Similar cures similar) is akin to this very Substance we are calling here "Atma" or it may be some other factor in

between Manas (Soul or Spiritual Body) and this Atma (Supernal Spirit). Like the Electric Spark in the internal combustion engine, a minute power releases vast pent-up store of radiant energy which in the human system acts as a dynamite and by some mysterious action proves curative.

*Editor's Notes:* According to Indian philosophies the 'Atman' and the 'Life Principle' are different categorical entities with different connotations attached to each of them. It is better not to commit such confusion of categories. Further the 'Sankhyan' conception of 'Life' is a bit different from the 'Vedantic' conception of Life. That is why Hahnemann wanted to keep clear of speculative philosophies or metaphysical dialectics and relied on 'empiricism' and facts of positive science based on observation, generalisation, logical methods of deduction and induction and experimental verification: B.K.S.

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## U. P. HOMŒOPATHS CONFERENCE AT GORAKHPUR

11TH, SESSION OF THE U.P. HOMŒO. MEDICAL CONFERENCE  
HELD ON THE 11TH AND 12TH JAN. 53.

Inaugurating the 11th session of the U.P. Homœo. Medical Conference at Gorakhpur on the 11th. Jan. 1953, the Hon'ble Minister for Local Self Government, Shri