

CHAPTER VI.

THE GENESIS OF PHYSICAL LIFE.

It must be admitted that no satisfactory theory of the evolution of man can obtain so long as the genesis of life upon this planet is shrouded in darkness.

The real factors and causes of evolution are bound up in this question of life itself.

Once given a primordial life cell demanding nutrition and capable of reproduction, and modern physical science constructs a man. Out of this primordial cell and these physical functions and a "hostile environment" it evolves a man physically, intellectually and morally.

This, however, does not in the least explain the original appearance of the cell itself. Neither does it explain the nature nor the cause which originates it. It does not explain the original division of life into male and female. It does not explain the phenomenon of intelligence which attaches to the operations of all living things.

Indeed, physical science explains none of these things. On the other hand, it most unscientifically relegates them to the regions of the "Unknowable."

Interest in the genesis of physical life remains unabated. The inquiring mind of man is not dismayed by the "Unknowable" of other men nor schools of men.

The vital problem in science to-day is the appearance of organic life upon this globe of inorganic matter.

Physical science confesses itself baffled at every point when it would explain how life evolves from non-life, how sensation evolves from non-sensation, or why intelligence inheres in living

things. It fails to explain these phenomena just as it fails to explain how intuitive intelligence rises into rational intelligence, or how unmoral perceptions rise into moral conceptions.

Modern physical science has traced the man physical through the lower forms of life. It has not, however, mastered the secrets of either life, sensation, intuition, reason, morality, love or happiness. The vigilant biologist traces life to the nucleated cell. Here, however, in the department of Protozoa he becomes bewildered. He misses the connecting link. He fails to discover that subtle element which enters in and converts a simple vegetable cell into the nucleated animal life cell.

Physical science is baffled here just as it is when it seeks the connecting link between man and the ape.

The specialist of physical science finds a cell which may be either animal or vegetable. He can neither feel, see, weigh nor measure, however, that which differentiates the simplest form of the animal life cell from a vegetable cell. His science can not determine as to certain cells, whether they will germinate vegetable or animal life.

Thus, physical science fails to determine at what point a vegetable life cell is converted into an animal life cell. In the same way it fails to demonstrate where mineral activity is converted into the higher activities of vegetable life. Indeed, physical science has not, as yet, discovered the connecting link between any two of the great kingdoms of Nature, mineral, vegetable, animal and human.

The Darwinian theory of evolution depends upon the original hungry life cell.

This theory, it will be observed, does not account for the hunger of that cell any more than it does for life itself. There is one fact which physical science consistently ignores, namely, that the life cell seeks nutrition because of an innate and pre-existing demand of some character.

Darwinism declares that everything came to be as it is because it was reinforced from without and because hunger and

hostile environment forced it to do thus or so. It therefore accepts both hunger and life as ultimate mysteries. It thereafter concerns itself entirely with the physical phenomena manifested by this unexplained hungry cell after it is generated by undiscovered forces.

Thus, physical science rests upon assumptions which preclude further investigation as to the genesis of physical life. Failing to account for it by the means known to physical science, it therefore holds that it can not be accounted for in science. It contents itself with assuming that life somehow generates through mechanical and non-intelligent physical forces. It does not, however, explain either the principle or the elements underlying this mechanical and non-intelligent physical movement.

With this for a major premise physical science thereafter is bound to assume that all further evolution or organization or variation of life cells rests upon mechanical principles and non-intelligent physical forces.

Physical science is thus bound to assume that man is the direct result of a blind digestive apparatus.

The physical materialist simply assumes that the physical functions constitute the sole factors in evolution. He does not concern himself with the principle which set the hungry life cell in operation. He fails to demonstrate and explain the generation of life, the pre-existence of hunger and the original capacity for reproduction.

These assumptions, as will be seen, also ignore that principle in Nature which endows original protoplasm with the masculine and the feminine characteristics, qualities and capacities.

No school of science will satisfy human intelligence which attempts to explain evolution without reference to the principles which generate a living entity and endow it with hunger, sex and an impulse to persist as an individual.

"The present state of knowledge furnishes us no links between the living and the non-living." Thus declares the Enc. Brit. when summing up the value of all experiments thus far

made by physical science as to the origin of physical life. This is true as to the research and experiment of modern physical science. It is not true, however, of the research and experiment of Natural Science. For years the world of science lived in expectancy of generating life by experiment. Two groups of scientists warmly debated the issue. One group, the experimenters, held to a theory of spontaneous generation of life from non-living substance. The other group maintained that life generates only from antecedent life.

The experiment consisted in sealing boiled water in air-tight jars.

When generation did not occur it had to be conceded that life does not generate in boiled water sealed in air-tight jars. The experimenters were right when they afterward agreed that life does not generate in a vacuum. Their opponents were also right when they declared that life generates only from antecedent life.

Upon the strength of these experiments physical science formulates what it terms the "Law of Biogenesis." While this theory fails to explain both the principle and process involved in the generation of life, yet it does undertake to explain how life can *not* generate. It claims that there can be no passage from mineral to plant life nor from plant to animal life. It declares that the doors of each kingdom are hermetically sealed upon the mineral side.

"Natural Law in The Spiritual World" is a popular work which attempts to apply this theory to the spiritual side of Nature. The argument is based upon the deductions of Huxley and Tyndall upon this subject. The author takes for granted that the opinions of these great specialists closed the case of Nature, for he says: "The organic is staked off from the inorganic by a barrier never yet crossed from the other side." Again he says: "No change of substance, no modification of environment nor any form of energy nor any evolution can endow a single atom of mineral substance with life."

If by "life" the author refers to animal life he is right. If he means vegetable life, however, he is wrong.

Physical science is not familiar with the process by which mineral substance is raised to correspondence with the vitochemical life element.

All that physical science has really demonstrated is:

- (1.) Animal life appears in a single nucleated cell.
- (2.) It contains one substance not found in vegetable forms of life.
- (3.) These cells are endowed with the functions of nutrition and reproduction.
- (4.) These cells have an inherent tendency toward organization.
- (5.) These organisms differentiate and improve in appearance, complexity and capacity.
- (6.) All entities endowed with animal life display intelligence in their operations.
- (7.) Animal life successively develops sensation, intuition (instinct), reason and morality.

In its last analysis physical science fails to suggest the causes which produce the original cell. It therefore relegates the origin of physical life to the region of the "Unknowable." Thus, the modern school stands convicted of insufficiency upon a question vital to scientific progress.

More than this, it is highly probable that physical science will reject any explanation which emanates from another school.

Is it not singular that familiarity with the history of science does not more rapidly promote a spirit of toleration among men of science? On the contrary, modern physical science, as a school or coterie, is almost as intolerant as were the older groups of investigators.

A certain pride of intelligence has been the stumbling-block all along the path of science. Egotism and dogmatism appear to be the weaknesses of most great specialists. It seems inevitable that when the individual intelligence finds itself completely baffled

it declares to the world, "We have reached the unknowable."

For confirmation of this statement turn to the history of modern physical science alone.

When men of science will consent to substitute the word "Undiscovered" for the word "Unknowable," dogmatism and persecution will have received their death-blow. A pursuit of the facts of Nature will then replace the mere effort to sustain an individual opinion or the deductions of any certain school or coterie.

Physical science, in the person of Mr. Edison, goes far enough to declare that "All is a matter of vibration." Mr. Edison has already demonstrated that only a given range of the vibrations of physical matter can be reported and registered through the physical senses.

In the person of Professor Roentgen, physical science demonstrates that there are certain higher vibrations of matter, invisible and intangible to physical sense, which may yet be dealt with by science. The "X-ray" is neither seen, heard, touched, tasted nor smelled. It exists, however, as an acknowledged reality and demonstrated force.

Physical science is making wonderful strides in the demonstration of these higher vibrations of physical matter. It has already conclusively proved that Nature embraces both matter and forces which make no impression upon the physical senses of man. By reason of such experiments it has arrived at the point where it could naturally and readily extend its lines into the broader field of Natural Science.

It remains to be seen whether pride of opinion is still stronger than a desire for knowledge. If so, the open door to another line of research and experiment will be ignored.

Natural Science embraces a comprehensive knowledge of physical science. It goes further. It demonstrates that there is a whole world of material vibrations and forces which eludes all physical organs of sensation, all physical instruments of registra-

tion, all physical experiments, and all physical means and methods of analysis and demonstration.

Physical science agrees that the vibration of matter means the movement of matter. It agrees that this vibration or motion of matter, as a whole, is maintained by the action and reaction of individual particles moving upon each other. Physical science also agrees that by and through this ceaseless activity of matter force is generated.

Thus far physical science coincides with Natural Science. The more liberal school, however, simply goes farther along the same line of experiment.

Natural Science goes far enough to demonstrate that it is the ceaseless activity of individual particles moving upon each other which refines matter itself and increases its vibratory action.

In yet another respect it points the way for modern experiment.

Physical science is concerned at present with the vibrations of physical matter only. Natural Science, on the other hand, is concerned with the vibratory activities of spiritual material as well as physical material. It studies physical matter by physical means and spiritual matter by spiritual means.

The higher science is therefore in position to discuss the law of motion and number from two points of view instead of one. That is to say, it is prepared to estimate and compare the difference in the refinement of matter and the vibratory activities of two worlds of matter.

The present position and deductions of Natural Science represent its researches crystallized to certain definite propositions concerning this law of motion and number. As already explained, the law of motion and number refers, first, to matter in motion; next, to the degree of refinement of the atom in the compound. These deductions are presented to supplement rather than to antagonize physical science. It is hoped to establish co-operative relations with the modern school and to secure its sympathy and aid rather than to invite antagonism.

Even though physical science rejects the principles here laid down, there are still many independent thinkers and investigators open to truth from whatever source it may come. There are many difficulties in this attempt to discuss the genesis of life upon this planet. This is frankly admitted. This is true by reason of the fact that those experiments which deal with the progress of matter and the genesis of life are experiments which lie beyond the means and methods of physical science.

They do not, however, transcend the experiments of human science or they would not now be subject of record and publication.

It is, indeed, difficult to present as facts of Nature those operations of Nature which can not be demonstrated by the means known to popular science. For this reason the deductions of Natural Science concerning the genesis of life may be mistaken as theoretical, if not purely fanciful speculation. In view of this the writer suggests to the reader as follows:

(1.) Discard as false whatever conflicts with facts of Nature already proved by physical science.

(2.) Keep clearly in mind the difference between proved physical facts of Nature and the theories advanced by physical scientists to explain those facts.

It is admitted that experiments involving proof of these principles transcend popular science. It is, however, explicitly declared that they come within the range of human science and are clearly comprehensible to finite intelligence. As already stated, Natural Science has its limitations. They are not, however, the same limitations which hamper physical science. Physical science is limited to the knowledge gained by finite intelligence operating upon the physical plane. Natural Science is limited to knowledge gained by finite intelligence operating upon both the physical and the spiritual planes.

When finite intelligence masters a universal principle in Nature and acquires definite knowledge as to the processes and effects of that principle, the limitations of finite science are appar-

ently reached. This is the nearest approach of the finite to the Infinite Intelligence.

All that man here or hereafter (as it appears) may aspire to know of the Law-Giver is some knowledge of His laws.

Colquhoun, in his "History of Magic," has well said, "When we have once established a general law of Nature we have reached the limit assigned our faculties and must take our stand on the primitive will and fiat of the great Creator of the universe; for who would otherwise attempt to explain the cause of a general law? The true philosopher endeavors to connect the various phenomena of the universe in such a manner as to elicit one or more of these general laws; and it is in this way—and in this way alone—that we can best contribute to the completion of the sciences. To attempt to go beyond this point is an error into which no man of sound sense and philosophical tact will readily fall."

There is, however, so much obtainable knowledge of the spiritual side of Nature that Natural Science is justified in presenting certain spiritual principles as universal principles and certain deduction as fundamental in science.

The spiritual principle of polarity is the universal principle under immediate consideration. Those propositions which relate to the evolution of man rest upon this principle. Evolution involves the refinement of matter, the increase of vibratory action, the generation of life, the individualization of intelligence, the development of love and the attainment of happiness.

Those experiments which demonstrate the foregoing propositions lie beyond the present scope and methods of physical science. They are experiments possible only to such as are specially trained for such work. Further, it must be understood that these propositions are not intended to explain the principle of polarity itself. They indicate only the fact that science discovers such a principle. They are not intended to explain why this principle governs evolution. They are merely intended to state the fact that under this principle matter is refined and increased

in vibratory action, that life is generated, intelligence individualized, love developed and happiness attained.

All that science can ever hope to accomplish by mere publication is to give facts, state principles and rationally elucidate them.

The principle to be stated and elucidated in this work is that principle by which matter is refined and increased in vibratory action through and by the efforts of individual entities seeking vibratory correspondences in other like individuals of opposite polarity.

Natural Science discovers something more in Nature than a universal spiritual principle of polarity or affinity. It discovers something more than physical matter in motion. It finds that a physical entity is something vastly more than mere physical matter keyed to a certain rate of vibratory action. It finds that all matter is alive, or rather that matter is animated by something which we name either magnetism, vitality or life. It finds, for instance, that a steel magnet exhibits a certain character of vitality, a tree possesses yet another, the animal still another, while it finds that man exhibits higher and more subtle energies than anything below him.

Science demonstrates that in addition to matter, Nature embraces certain subtle elements which are universal in time and space and are defined as the "Life Elements."

Finite science, be it understood, does not attempt to account for these elements in Nature any more than it does for matter and motion. It accepts them as universals and ultimates in Nature, and works along that hypothesis. Science simply classifies these Life Elements along with the other universals, namely, matter, motion, life, intelligence and love.

The universal Life Elements are four in number, defined as follows:

- (1.) Electro-Magnetism.
- (2.) The Vito-Chemical Life Element.
- (3.) The Spiritual Life Element.
- (4.) The Soul Element.

Science demonstrates that one or more of these vital elements magnetizes, vivifies, vitalizes or animates all physical matter, including the mineral atom, the plant, the animal and the man. It finds, therefore, that what we know as magnetism in metals, vitality in vegetation, and life in the animal and man are, in fact, certain temporary relations established between physical material and the finer and more subtle Life Elements.

The discovery and demonstration of the operation of these Life Elements constitute part of the occupation of Natural Science. The range of phenomena included in the operation of these elements extends downward to the unconscious mineral atom and upward to the self-conscious soul of man.

Study of the Life Elements in operation is the study of the universal principle of polarity or affinity. Through analysis of these elements is demonstrated the fact that the principle of polar attraction inheres in the vital elements themselves, and not in the solid particles of physical matter.

Knowledge of this important fact gives rise to certain other important deductions, viz.:

(1.) The union of physical matter and the Life Elements is brought about through and by the operation of that principle of polarity or affinity which inheres in the universal elements themselves.

(2.) Each Life Element displays dual and yet differing powers of positive and receptive energy.

(3.) In the union of physical matter with one or more of these Life Elements arise the phenomena of magnetism, vitality and life.

Science holds that these universal Life Elements are essentially unlike in essence and manifestation. As already stated, most of the experiments which support these statements lie beyond the present means and methods of modern physical science. It is, however, possible for the intelligent reader to gain a perfectly rational conception of the principles, properties and ele-

ments with which the higher science deals. It is also possible for the casual student to obtain an intelligent idea of the processes by which these properties and elements are converted into physical life.

The four universal Life Elements successively give rise to the four great physical kingdoms, viz., mineral, vegetable, animal and human.

Each one of the Life Elements gives rise to a distinctive form of physical activity or life. Each element governs a kingdom which is entirely distinct in physical appearance, in characteristics, capacities and activities.

Electro-Magnetism, the least potent of all the vital elements, animates mineral substance and displays merely the powers of union, cohesion and aggregation.

The Vito-Chemical Life Element, the next higher and more potent of the universal Life Elements, vivifies vegetable substance and governs a higher form of life and activity. This element displays something more than the powers of union, cohesion and aggregation. It does something more than unite already existing particles. It possesses in addition the powers of growth and organization. It generates new forms by attracting the necessary material from the universal elements.

The Spiritual Life Element, a still higher and more potent element, generates a still higher form of life. Animal life is a distinct advance upon vegetable life. Animal organisms possess a vitality, capacity and power wholly unlike and superior to the plant. The animal cell exhibits the same unconscious union, cohesion and aggregation of the mineral atoms. They also possess the power of growth and organization as do the plants. The animal, however, as a whole, possesses capacities which far transcend those of the mineral or vegetable kingdom. These capacities are defined as an individual consciousness and the powers of sensation, intuition and volition.

The Soul Element, the highest and most subtle known to science, inspires the kingdom of man. In this fourth and highest